# **Statnett**

# Annual report 2017

A

## Content

Financial framework conditions	4
A Word from the CEO	6
Highlights 2017	8
This is Statnett	10
Group management	12
Risk management	14
Board of Directors	16
Board of Directors' report	18
Financial reporting	34
Statement of comprehensive income	34
Balance sheet	35
Statement of changes in equity	36
Cash flow statement	37
Notes	38
Auditor's report	88
Corporate Social Responsibility	92
Global reporting Initiativ (GRI)	118
Independent assurance report CSR	125

Statnett is responsible for operating, developing and maintaining the transmission grid in Norway – including cables and power lines to other countries

Statnett is responsible for the transfer of electric power to the whole of Norway and ensures that there is always a balance between consumption and power production

## Key Figures and Alternative Performance Measures\*

Key figures (MNOK)	2017	2016	2015	2014	2013
Accounting result					
Operating revenues	7,401	6,678	5,906	5,563	4,561
Depreciation and amortisation <sup>1)</sup>	-2,273	-2,120	-1,516	-1,150	-1,030
Driftsresultat før avskrivninger og amortisering (EBITDA)	3,585	3,272	3,230	2,528	1,376
EBIT	1,312	1,152	1,714	1,378	346
Profit before tax	976	783	1,410	1,120	89
Profit for period <sup>2)</sup>	813	645	1,103	829	82
Adjustments					
Change in accumulated higher/lower revenue (+/-) before tax	-646	-1,003	-444	-623	-1,042
Change in accumulated higher/lower revenue (+/-) after tax	-491	-752	-324	-455	-750
Accumulated higher/lower revenue (+/-)	-303	343	1,346	1,790	2,413
Underlying result (adjusted for change in higher/lower revenue) <sup>2)</sup>					
Operating revenues	8,047	7,681	6,350	6,186	5,603
EBITDA	4,231	4,275	3,784	3,151	2,436
Underlying operating profit (EBIT)	1,958	2,155	2,158	2,001	1,388
Profit before tax	1,622	1,786	1,854	1,743	1,131
Underlying profit for the year	1,304	1,398	1,427	1,284	832
Key figures balance sheet					
Investments (additions, facilities under construction including interest on construction loans)	9,139	7,695	5,820	6,037	6,375
Property, plant and equipment	35,653	33,861	30,215	27,515	21,472
Long-term and current interest-bearing liabilities including hedging effect	39,189	32,633	28,289	24,643	19,909
Market value interest and currency swaps relating to loans	2,359	2,844	4,833	2,942	471
Interest-bearing liabilities adjusted for effect of interest and currency hedging	36,830	29,789	23,257	21,701	19,438
Equity	14,011	13,867	13,605	12,629	12,135
Equity adjusted for higher/lower revenue after tax	14,241	13,610	12,622	11,322	10,374
Total assets	58,721	50,743	45,547	41,107	34,897
Capital employed <sup>3)</sup>	49,299	41,322	35,859	31,271	27,017
Key financial ratios					
Return on capital employed before tax, adjusted for higher/lower revenue 4)	4.3 %	5.6 %	6.4 %	6.9 %	5.7 %
Return on equity after tax <sup>5)</sup>	5.8 %	4.7 %	8.4 %	6.7 %	0.8 %
Equity ratio	23.9 %	27.3 %	29.9 %	30.7 %	34.8 %
Equity ratio after tax, adjusted for higher/lower revenue	24.3 %	26.8 %	27.7 %	27.5 %	29.7 %
<sup>1)</sup> Depreciation, amortisation and impairments per statement of total comprehensive income less impair	rments dis	closed in N	lote 9 plan	ts under	

<sup>1</sup> Depreciation, amortisation and impairments per statement of total comprehensive income less impairments disclosed in Note 9 plants under construction.

<sup>2)</sup> The underlying result is based on regulated permitted revenue, while the accounting result will vary depending on established tariffs and congestion revenues. The difference is known as higher/lower revenue (see Note 2).

<sup>3)</sup> Capital employed = Property, plant and equipment + Facilities under construction + Trade and other current receivables + Trade and other current payables.

<sup>4)</sup> Return on capital employed before tax, adjusted for higher/lower revenue = EBIT, adjusted for higher/lower revenue / Average capital employed last two years.

<sup>5)</sup> Return on equity after tax =Net result for the year / Average equity last two years.

\* To provide a better understanding of Statnett's underlying result we also present a number of alternative performance measures. Alternative performance measures are defined in ESMA's guidelines as a financial measure of historical or future financial performance, financial position, or cash flows, other than a financial measure defined or specified in the applicable financial reporting framework. Statnett's alternative performance measures are adjusted for higher/lower revenue and supplement the figures in the IFRS financial statements. In addition to annual higher/lower revenue, reported accumulated rhigher/lower revenue also include applied interest and any prior-year adjustments.

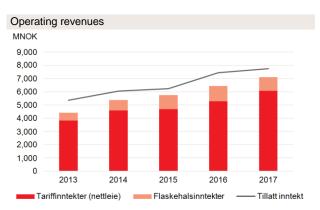
Changes in selected key financial and operational ratios used by management to monitor alternative performance measures over time are also shown.

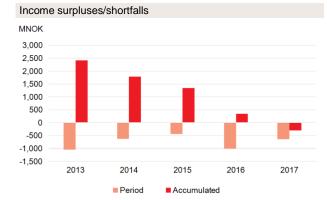
#### Statnett's revenues

Statnett's reported revenues in the financial statements comprise grid rental from customers in the transmission grid and congestion revenues. Congestion revenues arise when power is transmitted from areas with a low power price to areas with a high power price in the Nordic region and through interconnectors between Norway and the Netherlands. The grid rental (tariff) is established ahead of each calendar year.

Revenues are regulated and controlled by the Norwegian Water Resources and Energy Directorate (NVE), which establishes an annual income ceiling (permitted revenue). Permitted revenue is intended to cover costs of developing and maintaining the grid and to provide a reasonable return on grid investments. The transmission grid must be planned, constructed, operated, utilised and maintained in a cost-effective manner based on commercial principles.

Actual accounting income from regulated activities in each financial year will normally differ from the final permitted revenue, which the NVE establishes after the end of the year. These differences are known as higher or lower revenues, which in accordance with NVE regulations, are equalised over time through adjustment of future grid tariffs. Consequently, higher/lower revenues represent temporary balances in Statnett's financial statements, which in accordance with IFRSs, are not recognised in the balance sheet.





#### **Revenues and results**

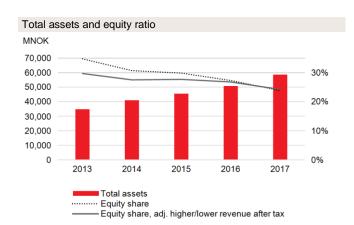
Statnett has recorded significant higher and lower revenues since 2009. This has resulted in major fluctuations in recognised operating revenues and operating results. Revenues and results adjusted for higher/lower revenues show that underlying activities are much more stable than the accounting figures including higher/lower revenues. Changes in underlying revenues and results over the last five years are primarily attributable to higher grid capital due to an increase in the number of commissioned facilities, as well as a slightly lower NVE interest rate during the period.

Statnett's formulated strategy includes instructions for establishing the annual tariff for the transmission grid. In accordance with NVE's guidelines, Statnett aims to facilitate constant and predictable tariffs over time and has elected to spread the repayment of earlier accumulated higher revenue over several years. By the end of 2017, Statnett had an accumulated lower revenue of NOK 303 million.

### The investment level affects revenues and the balance sheet

Only completed investments are included in the basis for Statnett's premitted revenue. Statnett's equity reported in the financial statements includes accumulated higher / lower revenue. To establish Statnett's actual equity, equity is adjusted for accumulated higher/lower revenue after tax.

Net interest-bearing liabilities have risen in line with investment levels. In 2014, Statnett received an equity injection of NOK 3.25 billion, with the aim of securing a minimum 25 per cent equity ratio by the end of 2017. At the end of 2017, the equity ratio adjusted for accumulated higher/lower revenue after tax was 24 per cent.



#### **Statnett**

## A Word from the CEO on 2017

In 2017 Statnett celebrated its 25<sup>th</sup> anniversary. The anniversary provides an ideal opportunity to review some of our current projects in the context of our history and above all in the context of the major changes we can expect over the next 25 years.

Statnett was established as a part of the deregulation of the energy market in 1991, with a remit of operating and developing the power grid, guaranteeing security of supply and establishing the foundations for an efficient market. The market reform 25 years ago resulted in more efficient utilisation of hydropower resources and the transmission grid, and promoted cost-efficiency across the entire power industry. While the previous changes were driven by innovative regulation on the part of the Norwegian authorities, the current changes are in particular being driven by global, European and Norwegian climate policy, and most of all a rapid changes in energy technology and ICT.

Norway already has an emission-free power sector with a significant share of our energy coming from flexible hydropower. Hydropower will be a cornerstone of Norway's power system in the foreseeable future. Nonetheless, Norway's power system is also facing significant changes. The next 25 years will see greater changes than in the previous quarter of a century.

The costs of solar and wind power and batteries have dropped more quickly than even the most optimistic of us could have expected. Wind power in Norway is set to become profitable without subsidies within a few years. The cost of batteries for electric vehicles has fallen by around 80 per cent since 2010. These developments confirm that the future is indeed electric. It is also digital. Quicker and cheaper data processing power will present a plethora of new opportunities. Consumers can increasingly save money by participating in power system balancing, Statnett can exploit grid capacity more effectively, and we can build, operate and maintain infrastructure more efficiently. Having good access to flexible solutions will be important for the safe and efficient operation of the power system, and to limit investment needs at all voltage levels.

The power system is also changing due to closer integration with our Nordic neighbours. We are currently constructing new cables to Germany and the UK. In the period leading up to 2021, the Nordic region's trading capacity with non-Nordic countries will increase by about 70 per cent, which corresponds to almost 5,000 MW.

Increased exchange of power with other countries, additional variable power production and more active consumers will result in a more complex power system, with more stakeholders and more rapid changes in the power flow. This poses increasing challenges with regard to operation of the power system. To deal with these challenges, we will require both a more robust grid and improved IT systems for monitoring and control.



We will also have to further develop our partnerships with our neighbouring countries and the distribution system operators that are in direct contact with end-users.

Statnett has collaborated with Nordic associate companies to develop a future-oriented model for managing the continuous balancing of the power system. In addition, Statnett is partnering with Svenska kraftnät to develop IT systems for implementing the power system balancing model.

By 2019, all Norwegian households will have smart meters installed that register power consumption on an hourly basis (AMS). These smart meters will communicate directly with the Elhub data management and settlement system, which Statnett is responsible for developing. Elhub is intended to make day-to-day activities simpler for consumers, distribution system operators and power suppliers thanks to the effective and secure management of metering data. The system will also provide an important platform for independent innovators wishing to develop new, smart solutions for consumers, distribution system operators and power suppliers.

We are expanding the grid to cover future needs and stepping up our initiatives to leverage all the opportunities offered by digitalisation and other emerging technologies. We are currently in the midst of a wave of investments that will equip Norway with a future-proof transmission grid. Over the last five years, we have invested around NOK 30 billion in the grid, and plan to invest even at least as much in the next five years. In 2016, we constructed 157 km of new power lines, and more than 200 km in 2017. At the same time as we are expanding the grid and developing new smart solutions, we must constantly operate the grid in an efficient and secure way. Statnett's operating organisation has in 2017 guides us safely through several periods of extreme weather without impacting consumption to any significant degree. The challenges related to extreme weather and new digital threats will not lessen in the coming years.

The power system is facing major changes. Moving forward it c be challenging to align regulations, the organisation of the sector and our own strategies for keeping up with the pace so we can effectively exploit new opportunities. While we must be innovative, we must also continue to focus on the strong performance of our day-to-day work aimed at ensuring safe and efficient operations.

As the owner of the transmission grid with responsibility for the operation and long-term development of the power system, Statnett is well placed to see the big picture and find new solutions. With our competent and motivated organisation, we are in the best position to secure ongoing operation of the power system and expansion of the power grid, while implementing smart and cost-effective solutions for an electric future.

## Highlights 2017

### Commissioning of the Ofoten-Balsfjord power line

The section from Kvandal to Bardufoss was electrified in September, meaning that the whole line, from Ofoten to Balsfjord, has been completed and commissioned at 420 kV. The power line is needed to maintain security of supply across the entire region north of Ofoten and will contribute to the construction of new renewable energy projects.

#### Voltage upgrade of Klæbu-Nedre Røssåga

The Klæbu–Namsos–Nedre Røssåga voltage upgrade project was completed at the end of September. The power line provides a continuous 420 kV connection from central Troms, via Trøndelag to Northwestern Norway. The upgrade will secure the long-term energy supply and provide the extra transmission capacity required for new renewable energy projects.

#### Power cable to Germany (NordLink)

The first section of the subsea power cable between Norway and Germany was laid in the summer of 2017. The cable is planned to enter commercial operation in 2020. The exchange capacity will boost value-creation, improve security of supply and aid the transformation to a more climate-friendly European energy system.

#### Power cable to the UK (North Sea Link)

Groundwork has been completed in Kvilldal in south-west Norway while corresponding work in Blyth in northern England is in its final stages. This will allow work on converter stations to commence on both sides of the North Sea as planned in spring 2018. Preparations for installation of the first cable sections in spring 2018 are ongoing. The cable is due to be commissioned in 2021. The exchange capacity will boost value-creation, improve security of supply and aid the transformation to a more climate-friendly European energy system.

#### Installation of a new Inner Oslo Fjord cable

The first of two new cable links across the Inner Oslo Fjord was commissioned in September. The link contributes to security of supply in the Oslo region. The second cable is to be completed in the late summer of 2018.

#### Licensing decision Greater Oslo Grid Plan

In December, the Norwegian Water Resources and Energy Directorate (NVE) awarded a licence under the Greater Oslo Grid Plan to renew the Sogn transformer station and to rebuild the Ulven transformer station. In April, the Ministry of Petroleum and Energy (OED) ratified the licence to renew the cable connection between Smestad and Sogn, as well as the Smestad substation in Oslo. The upgrades will play an important role in ensuring security of supply to the Oslo region moving forward.

#### Acquisitions and sales of grid assets

Statnett has entered into an agreement to purchase transmission grid assets from BKK, and signed contracts to sell distribution grid assets to four companies, the largest of which are Haugaland Kraft Nett AS and Hafslund Nett AS. The agreements are consistent with Statnett's strategy of owning and developing the transmission grid while selling the remaining distribution grid assets to companies who focus on operating and developing distribution grids. The acquisition of transmission grid assets is in accordance with expected legislative changes related to EU's Third Energy Package.

## Statnett takes over operations in southern Rogaland

On January 1<sup>st</sup>, 2017, Statnett took over operation of the transmission grid in southern Rogaland. This includes operation of 300 kV high-voltage lines, subsea cables under Hafrsfjord, and switchgear and transformers in the largest transformer stations.





#### Launch of Nordic Balance Settlement

The joint Nordic Balance Settlement (NBS) system was launched in May. The system is being managed by the company eSett Oy, which is jointly owned by the Nordic system operators. eSett Oy thus administers the system operators' responsibility for Nordic Balance Settlement.

#### Joint Nordic balancing model

Statnett, Svenska kraftnät, Energinet and Fingrid have agreed on a model for the future balancing of the Nordic power system (MACE). The balancing model will be implemented with support from the ICT company Fifty, jointly owned by Statnett and Svenska kraftnät.

#### Power system operations

A number of outages in the transmission grid led to strained operations and reduced security of supply through the year. The power system was tested by two extreme weather systems, Ylva and Aina, in late 2017. Preparations and measures taken while the storms passed over Norway allowed Statnett to operate the power system without the storms having long-term consequences for power users.

#### European law

The EU's Third Energy Package contains the establishment of common rules and regulations for the Energy sector in the EU. The EU has implemented eight pieces of detailed regulations, so called Network Codes and Guidelines. These will be implemented into Norwegian law after having been incorporated to the EEA Agreement. The Network Codes define binding rules and regulations for connections to the power system, system operations and the energy market.

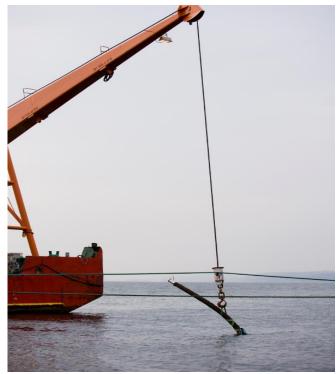
#### New loan facilities

In January, Statnett signed a new NOK 8 billion drawdown facility agreement, which replaces and extends the previous agreement. In June, Statnett signed a EUR 300 million loan agreement with the European Investment Bank. The loan relates to the NordLink cable, and an amount of EUR 100 million has already been utilised. In September, Statnett placed its first bond in the Euro Market. The new loan is for EUR 500 million (NOK 4.7 billion).

#### Favourable judgement in property tax case

In June, the Supreme Court ruled fully in favour of Statnett that the property tax resolutions imposed by three municipalities were invalid. The ruling sets an important precedent and paves the way for a review of how property tax is determined.





## This is Statnett

Statnett is the transmission system operator (TSO) in the Norwegian power system and is responsible for developing, operating and maintaining the transmission grid in the interests of society.

#### Ownership

Statnett is a state-owned enterprise established in accordance with the Act relating to state-owned enterprises and is owned by the state through the Ministry of Petroleum and Energy (OED). The Norwegian Water Resources and Energy Directorate (NVE) is responsible for supervision in accordance with watercourse and energy legislation.

#### Statnett's primary roles

Statnett's responsibilities are operationalized under three main roles:

- **System operator** securing instantaneous balance between production and consumption at all times
- Grid owner- owner of the Norwegian transmission grid and connections with other countries' power systems
- **Power system planer** responsible for planning of the transmission grid in the Norwegian power system

#### Statnett's values

Statnett's common set of values establishes a framework for expected behaviours based on teamwork, dialogue and transparency. Statnett's values are:

- Long-term perspective
- Respect
- Community

#### Statnett's social mandate

Statnett shall contribute to the following:

- Security of supply Statnett shall safeguard Norwegian security of supply through operations, monitoring and emergency preparedness
- Value-creation Statnett shall facilitate valuecreation for both customers and society
- Electrification Statnett shall facilitate use of electricity in new areas (electrification) and new renewable projects to enable Norway to achieve its climate targets

#### Statnett's strategic foundation

The Group's strategy is based on the premise that the electrification of society will continue. Statnett's primary objective for the period 2017–2021 is to develop a smart and future-proof power system, while maintaining a secure power supply and offering high available grid capacity for the market. Statnett shall also be a leader in HSE and one of the most cost-effective TSOs in Europe. In addition Statnett has a target to flatten tariffs for end consumers following the coming five year period.

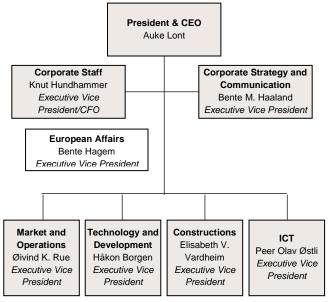
Statnett's strategy is based on an ambition of being efficient, smart and safe through, among other things:

- Smart grid planning and infrastructure management
- Effective and automated market and system solutions
- Cooperation on integrated power system solutions
- Industry leader in digital security
- Establishment of a solid digital foundation
- A transparent and simpler Statnett

See <u>www.statnett.no</u> for more information on Statnett.

#### Statnett's Organisation

See www.statnett.no for more information on Statnett's organisation.



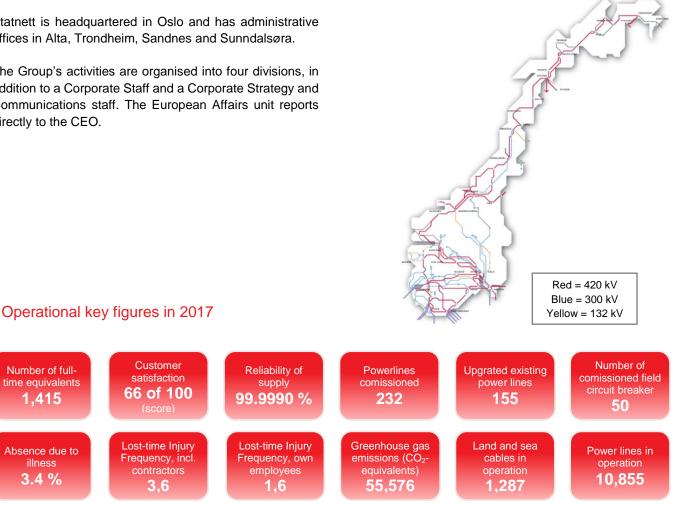
Statnett is headquartered in Oslo and has administrative offices in Alta, Trondheim, Sandnes and Sunndalsøra.

The Group's activities are organised into four divisions, in addition to a Corporate Staff and a Corporate Strategy and Communications staff. The European Affairs unit reports directly to the CEO.

#### Operation and expansion activities

Statnett operates around 12,000 km of high-voltage lines and 160 substations the length and breadth of Norway. The grid is developed and managed countrywide by an operational unit that also oversees emergency preparedness. Operations are monitored by a national control centre and two regional centres. Statnett is also responsible for interconnectors with Sweden, Finland, Russia, Denmark and the Netherlands. Statnett uses a countrywide communications network, based on 10,000 km of optical fibre, to monitor and control Statnett's facilities.

Statnett is engaged in multiple construction activities and has many ongoing projects throughout Norway. Statnett has implemented many of planned investments announced in 2009 and has already completed several major projects involving the construction of more than 1,000 km of new or upgraded power lines and 90 new or upgraded substations. Statnett is also constructing cables to Germany and the United Kingdom.



## Group management

#### Auke Lont

#### **President and CEO**

Employed as President and CEO in 2009 Education/qualifications: Master's in Econometrics from Vrije University in Amsterdam.

Previous positions: CEO of ECON and Naturkraft, and various executive positions at Statoil.

Directorships: Director at Bane NOR SF and Spekter.

#### Øivind Kristian Rue

#### **Executive Vice President Markets and Operations**

Employed in 2000 and a member of Group management since 2000

Education/qualifications: MSc in Political Science (Cand. Polit.) from the University of Oslo.

Previous positions: Director of Saga Petroleum AS, Assistant Director General of the Ministry of Trade and Industry and several directorships at Statnett. Directorships: Member of Fifty AS

Håkon Borgen

### Executive Vice President Technology and Development

Employed in 1995 and a member of Group management since 2004

Education/qualifications: Civil Engineer from the Norwegian University of Science and Technology (NTNU) and Technische Hochschule Darmstadt (THD) in Germany.

Previous positions: Several executive positions at BKK and several directorships at Statnett.

Directorships: Chair of NordLink Norge AS

#### Elisabeth Vike Vardheim

#### **Executive Vice President Construction**

Employed in 2007 and a member of Group management since 2014

Education/qualifications: MSc from NTNU, Degree in Business Administration, Master's in Board Governance from the Norwegian Business School (BI). Previous positions: Executive positions at Statnett, in the public sectorand in construction projects.

Directorships: Chair of Statnett Transport AS

#### Peer Olav Østli

#### **Executive Vice President ICT**

Employed in 2007 and a member of Group management since 2007

Education/qualifications: Master's in Computer Science and postgraduate studies in management from Henley Business School in the UK.

Previous positions: Director at Telenor, Schibsted Nett and Scandinavia Online AB, Head of Technology at NRK. Directorships: Chairman of Elhub AS and member of DIGITALNORWAY – Toppindustrisenteret AS.

#### Bente Monica Haaland

### Executive Vice President Strategy and Communication

Employed in 1993 and a member of Group management since 2014

Education/qualifications: MSc from the University of Aberdeen and Master's in Management from the Norwegian Business School (BI).

Previous positions: Executive positions at Statnett, Statkraft and Eclipse Energy Group.

Directorships: Member of the Renewables Grid Initiative (RGI).

#### Knut Hundhammer

#### Executive Vice President CFO and Chief of Staff

Employed in 2011 and a member of Group management since 2011

Education/qualifications: Norwegian Military Academy and MBA from Wharton School of Business in the USA. Previous positions: Company Commander in the Norwegian Armed Forces, consultant at McKinsey & Co, Director at HUAL AS, CFO of Finansbanken ASA, President of Klavenes Gruppen and President of the Norwegian Defence and Security Industries Association (FSi).



From the left: Bente Monica Haaland, Håkon Borgen, Elisabeth Vike Vardheim, Auke Lont, Øivind Kristian Rue, Peer Olav Østli, Knut Hundhammer. See <u>www.statnett.no</u> for more information about Group management.

## Risk management

#### Framework

Statnett adopts a holistic approach to risk management, commensurate with the Group's management of critical societal infrastructure and its extensive ongoing investment programme, which encompasses both development and renewal projects as well as the phasing-in of new digital solutions and national, Nordic and European collaborative solutions. Risk management encompasses all business perspectives, including strategic, marketing, operational and financial matters. Risks with potential consequences for HSE, supply of electrical power, finance and reputation are prioritised. Statnett's activities are subject to extensive regulation from multiple authorities. By complying with the applicable regulations, Statnett helps to keep risks relating to the supply of electrical power at a low level.

Effective internal controls boost efficiency and improve the quality and results of the work processes. Statnett strives to continuously improve its holistic risk management and internal control procedures. Statnett has also synchronised its processes for risk and performance management in order to contribute to efficient management.

The work that the company conducted in 2016 on improving routines for preventing, detecting and managing fraud was continued in 2017. The status and progress of the implementation of planned improvement measures have been regularly reviewed by the Group management. The company has identified a need for additional measures in subsidiaries and other affiliates, and measures will be implemented in 2018.

#### Health, safety and the environment

Statnett's construction, operation and maintenance activities can involve a risk of serious personal injuries and harm to the environment. Management of HSE risk is based on properly documented work processes, including associated instructions and procedures that are regularly reviewed. Risk analyses are performed during operations, as well as in the planning and execution phases of projects. Other focus areas include the reporting of incidents and near misses, sound technology and solution choices, R&D initiatives, management follow-up and development of an overarching safety culture. Statnett attaches importance to establishing clear requirements in close collaboration with its suppliers. One example is Statnett's preventive work related to subcontractor pay and working conditions.

Following two fatal accidents in 2016, Statnett carried out a qualitative and holistic review of the company's HSE risk and established an HSE action plan. The action plan consists of a set of specific improvement areas. There has been good progress in introducing the improvement measures. This work will continue in 2018. The experience is that the collective HSE improvement work is making the organisation increasingly aware of the importance of effective and systematic HSE. This is reflected in a reduction in the number of injuries and hazardous conditions, as well as an improvement in the reporting culture as evidenced in increased levels of reporting. The action plan has resulted in a more professionalized followup of the suppliers, described in the report on Corporate Social Responsibility.

#### Security of operations and supply

In order to secure a stable, high-quality power supply, Statnett must have a suitable, efficient and holistic risk management process for the entire business. Work on digital security represents an important part of this process. One of Statnett's objectives is to have acceptable risk levels at any given moment for a constantly evolving threat and risk profile.

Power outages can arise if Statnett operates on an N-0 basis. This means that failure of an individual component can result in a power outage. In situations with normal security of operations, multiple simultaneous faults could also cause outages. Weather-related incidents, terrorist attacks on physical infrastructure and attacks against (hacking of) operating systems also pose a risk to security of supply. Weather-related risk is gradually being reduced by the completion of new supply infrastructure, while improved emergency preparedness is expected to reduce the consequences of ICT-related attacks.

The most important risk-reducing measures relating to security of supply over the long term is Statnett's good operations and correct maintenance of its facilities. In addition there is a focus on skill development of employees responsible for grid operations and employees in the control and regional centres. The investment projects are important long-term measures. These projects are adopted based on cost-benefit analyses. Security of supply in Central Norway and Lofoten has significantly improved following the commissioning of the new Ørskog-Sogndal and Kvitfossen-Kanstadbotn power lines. Ongoing measures to manage risk relating to security of supply include maintenance, trouble-shooting, risk and vulnerability analyses, emergency preparedness planning and exercises, and component replacements, as well as alignment of the operating scenario with ongoing operations.

#### Climate

Climate risk is split into the subcategories of physical and regulatory climate risk. While the former covers the physical impact of climate changes on the transmission infrastructure, the latter encompasses the consequences of climate-policy measures on Statnett's activities.

As a state-owned enterprise, Statnett is expected to map climate risks, identify risk-management measures and be aware of the benefits of early adaptation to climate changes and new climate-policy measures. In 2018, Statnett will perform further work on climate risk and facilitation of climate-friendly solutions.

Statnett's overarching risk profile relates to more extreme weather and a more intense focus on climate policy, which is in turn giving rise to more stringent legal requirements in Europe and Norway. The European power system will be developed according to a climate perspective, while climate changes are heightening the requirements to secure grid infrastructure at all voltage levels. Risk attaches to potential insufficient weighting of the impact of the climate on Statnett's investments and the potential failure of Statnett as an organisation to adapt its practices in line with shifts in Norwegian and European environmental and climate policy.

#### Finance

The maximum allowed revenue is determined by NVE annually. It allows Statnett to cover its actual costs from grid related activities and system operations, as well as to achieve a reasonable efficiency-adjusted return on investments. Statnett's economic results are influenced by the regulated return, which according to regulations must be set by NVE at a level that allows for a reasonable return when efficient, and the revenue adjustment following from the efficiency score as measured and set by NVE. One of Statnett's key risk-reducing measures is an ongoing and holistic cost-efficiency programme designed to ensure that Statnett is 15 per cent more efficient by the end of 2018 than at the start of the measuring period in 2013.

The Group is exposed to interest rate risk on its debt portfolio, liquidity portfolio and financial hedging activities. Statnett reduces the impact of interest rate fluctuations by aligning the interest rate on Statnett's debt as closely as possible with NVE's regulated rate of return. Statnett uses interest rate swaps linked to the underlying debt for this purpose. Operational risk, project implementation risk and grid faults can also affect Statnett's financial position and are managed through measures to control security of operations and supply. Statnett has access to several loan markets and has a diversified debt maturity structure. Access to loans is supported by a credit rating for long-term borrowings of A+ and A2 from Standard & Poor's and Moody's Investor Service, respectively. Statnett's available liquidity is intended to secure financing of operations and investments on a 12-month rolling basis, even without raising new debt. Available liquidity also includes a NOK 8 billion drawdown facility maturing in January 2023, which reduces the probability of Statnett being unable to refinance its debt in periods of scarce supply of capital.

Statnett's revenues are mainly denominated in NOK, though some of the Group's costs are incurred in foreign currency. Foreign exchange risk is minimised by hedging major procurements in investment projects using forward foreign exchange contracts, and through the company's revenue regulation. All Statnett's foreign-currency debt ia converted to NOK using currency swaps.

Statnett is exposed to credit risk from investing surplus liquidity in securites and bank deposits. Statnett has internal limits establishing requirements for credit quality and maximum exposure for each individual placement of surplus liquidity. Statnett is also exposed to credit risk through its role as responsible for settlement in the balancing power market, a risk that is managed by means of established routines that require security from market participants.

Statnett is exposed to counterparty risk on its derivatives counterparties. Statnett has entered into credit support agreements (CSA) to reduce this risk.

The Board has established principles for financial risk management of the enterprise through it's finance policy. The finance policy establishes specific limits to financial management, including for credit risk, settlement risk and counterparty risk, along with instructions for implementing financial transactions. Internal control routines are established and performed independently.

#### Reputation

Statnett works on many levels to minimise and manage its reputational risk. The company adopts a preventive approach by presenting a realistic image of Statnett's operations and its importance for society. The dissemination of stories about Statnett's undertakings helps building trust. Subjects include the usefulnes of Statnett's investment projects, as well as their progress.

## Statnett's Board of Directors

#### Per Hjorth

Board member since 2008, Chairman since 2015. Directorships: Working chairman of Newsec Norway and Board member of the Nordic Newsec companies. Previous positions: A number of executive positions in the industry, finance and energy sectors, including CEO of Nord Pool ASA.

#### Synne Homble

Board member since 2013, Deputy Chair since 2015. Head of the Remuneration Committee.

Previous positions: Chief Officer Mobility and Strategy in the NSB Group, Executive Vice President of Cermag Group AS / Cermaq ASA, lawyer at the law firm Wikborg Rein and member of the Norwegian National Contact Point for the OECD.

#### Einar Anders Strømsvåg

Board member since 2015.

Head of the Audit Committee.

Directorships: Chairman of the Western Norway Regional Health Authority, member of the Executive Board of the Confederation of Norwegian Enterprise (NHO).

Previous positions: Senior Advisor at Statoil, as well as various executive positions at Statoil, including director of the Group Audit function.

#### Kirsten Indgjerd Værdal

Board member since 2009.

Member of the Audit Committee.

Directorships: Board memberships in the public and private sector, as well as organisations.

Previous positions: Senior Agricultural Adviser for Innovation and Development at the County Governor's office in Nord-Trøndelag, Director of Agriculture and various executive positions in the food industry.

#### Maria Sandsmark

Board member since 2013.

Member of the Remuneration Committee and the Project Committee.

Previous positions: Researcher at Møreforskning Molde AS, Associate Professor at Molde University College and consultant at ECON analysis.

#### Egil Gjesteland

Board member since 2012.

Head of the Project Committee.

Directorships: Egypt Solar B.V.

Previous positions: Owner of Gjesteland Consulting, IT Director and Project Director for a number of Statoil's oil and gas projects.

#### Karianne Burhol

Employee-elected Board member since 2016, employee since 2005

Member of the Audit Committee.

Previous positions: Department Manager for Statnett's construction managers for power line projects, as well as Project Manager for construction projects.

#### Steinar Jøråndstad

Employee-elected Board member since 2004, employee since 1981

Member of the project committee.

Previous positions: Team coordinator in Statnett's division for Systems Operations, Asset Management and Markets, Head of the nationwide Electrician and IT Workers Union, member of the Working Environment Committee and Chief Safety Representative at Statnett.

#### Nils Ole Kristensen

Employee-elected Board member since 2016, employee since 2000

Member of the Remuneration Committee.

Previous positions: Various positions including tariff design, international consultancy and engineering. Previously employed by the Norwegian Water Resources and Energy Directorate. Head of the Statnett branch of the Norwegian Society of Graduate Technical and Scientific Professional (Tekna).



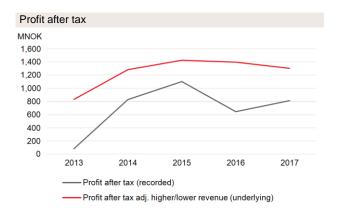
From the left: Einar Anders Strømsvåg, Synne Larsen Homble, Steinar Jøråndstad, Kirsten Indgjerd Værdal, Karianne Burhol, Per Hjorth, Nils Ole Kristensen, Maria Sandsmark, Egil Gjesteland. Visit <u>www.statnett.no</u> for more information.

## Report from the Board of Directors

Statnett is in a period of historically high investment levels. The year 2017 has been characterised by solid progress in the construction of new plants, including interconnectors and major power line projects, as well as digitalisation. Stable plants and system operations have contributed to good delivery reliability, in a year with a number of reinvestments and maintenance projects. Overall, the Group has seen increased activity, while HSE results have developed in a positive direction.

In 2017 the Statnett Group's underlying profit after tax amounted to NOK 1,304 million (2016: NOK 1,398 million). Recorded profit after tax for the Group amounted to NOK 813 million (NOK 645 million). Statnett invested NOK 9.2 billion (NOK 7.7 billion) which reflects a high activity level that is expected to continue over the next few years.

Permitted revenue has increased compared to 2016. The increase is due to growth in grid infrastructure which increases the return on grid capital. This is somewhat offset by a lower NVE interest rate. Operating expenses have increased due to higher activity level for the Group, and increased depreciation and write-downs are related to higher asset base. These factors reduced the underlying result. The recorded result was higher than in 2016. Higher operating revenues following change in tariff rate, were offset by a slight increase in operating expenses and depreciations. Results from Statnett's efficiencyimprovement programme have contributed to a lower cost increase than the increased activity should indicate.



## Stable operations and solid progress in the project portfolio.

Statnett is the transmission system operator (TSO) in the Norwegian power system and is responsible for developing, operating and maintaining the transmission grid in the best interests of society. Through investment projects and development of new operating and market solutions, Statnett promote improvements in security of supply, contribute to Norwegian value creation and facilitate the electrification required to help Norway realise its climate targets. With headquarters in Oslo and administrative offices in Alta, Trondheim, Sandnes and Sunndalsøra, Statnett has operations in all parts of Norway.

The Group's construction and maintenance projects are progressing well, and system and asset operations were stable in 2017. Several investment projects were completed in 2017. The entire line between Ofoten and Balsfjord is now energised and the Klæbu - Namsos -Nedre Røssåga line upgraded to a higher voltage level. These projects, together with completed substation projects, have helped to reinforce security of supply in vulnerable areas such as Central and Northern Norway. There is good progress in replacing the two cable connections across the Oslo Fjord, which is of major importance for security of supply in the Oslo region and the connection with Sweden. Two new interconnectors, to Germany and the UK, are due to be completed by 2021. In 2016, Statnett reached an agreement with BKK to take over the transmission grid in the Bergen area, and the acquisition was completed effective 1 January 2018.

Over the next three to four years, Statnett will complete an important investment phase in the transmission grid involving the completion of an extensive portfolio of construction projects, and upgrading and renewal of many existing assets.

Operations have been stable in 2017. At 99.999 per cent, delivery reliability<sup>2)</sup> came in on target. There were more planned disconnections due to new builds, voltage upgrades and normal maintenance in 2017. Work on voltage upgrades reduced security of supply to Stavanger, trading capacity with Central Norway and exchange capacity with Denmark and the Netherlands, while the installation of new cables across the Oslo Fjord reduced capacity to Sweden. At the end of the year the extreme weathers Ylva and Aina severely tested the system,

<sup>1)</sup> The underlying profit or loss is based on the regulated permitted revenue, whereas the recorded profit or loss will depend on established tariffs and congestion revenues. The difference, referred to as higher or lower revenue, will level out over time through adjustment of tariffs, ensuring that Statnett's recorded revenue over time corresponds with the regulated permitted revenue.

<sup>2)</sup> Availability of electrical power in Statnett's grid measured as: (1 – non-delivered energy)/(delivered energy).

causing several power line outages, though with no longterm consequences for end-users. The operating organisation was well prepared and managed the situation efficiently.

The power situation remained good throughout the year, with the exception of the area north of Ofoten, where the situation was deemed to be strained for a period of four weeks. At the end of the year, the hydrological balance was in surplus and reservoir levels were slightly above the median.

Increased power exchange and more variable renewable power production are increasing the need for balancing in the Nordic synchronous area. To address this challenge, there is developed a model for future balancing of the Nordic power system. The balancing model will be implemented with support from the Swedish/Norwegian cooperation Fifty AS.

has an extensive efficiency-improvement Statnett programme with a target of 15 per cent increased efficiency from 2013 to 2018. The target covers all activities at Statnett and encompasses efficiency improvements in the operation of existing infrastructure, development projects and support functions. Statnett is continuously working to reduce unit costs for the operation of plants and plants under construction. Statnett continually strives to reduce unit costs, including through ongoing research and development initiatives, and related qualification of new technology for use in the project portfolio. Statnett also systematically strive to ensure that the supplier market develops in line with the Company's needs. Together, the above measures will reduce project costs in line with the aims of the efficiency-improvement programme.

The scope of projects to be completed over the next few years will contribute to an increase in tariffs, while the efficiency-improvement programme will help to ensure that costs do not increase at the same rate as investments should indicate. Efficient operations levels and development will further help to curb tariff increases, while interconnectors will boost trading revenue out of the synchronous area and contribute to tariff reductions. These revenues are returned in full to consumers and provide a tariff-dampening effect. Together, these measures will make achieving the target of a flattening out of tariffs towards the end the next five-year period a realistic goal. This type of target is important with regard to the overall cost profile for consumers - in particular in a period in which consumers are being offered an increasingly competitive alternative in the form of solar power. The entire industry is facing increasing demands in terms of cost-efficiency.

A dividend of 25 per cent is proposed for the financial year 2017, in line with the Norwegian government's proposal in the 2018 State Budget. In addition, Statnett's underlying results in recent years have helped to maintain sufficient capital to complete the extensive investment programme. In order to secure access to financing on competitive terms, Statnett emphasises maintaining a robust 'A' rating.

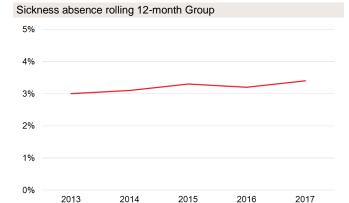
In 2017, Statnett signed a new NOK 8 billion drawdown facility agreement, which replaced and extended the previous agreement. Statnett has also signed several major loan agreements and placed the first major bond in the euro market.

#### Health, safety and the environment

Statnett has a zero accidents vision. This means that the company works systematically to prevent all accidents, personal injuries and damage to property and other tangible assets. The Group has an ambitious target of becoming a leading transmission system operator (TSO) in HSE in Europe. There is established a specific target of achieving a LTIF indicator<sup>1)</sup> of 3.1 and a TRFI indicator<sup>2)</sup> of 8.3 for own employees and subcontractors by the end of 2018.

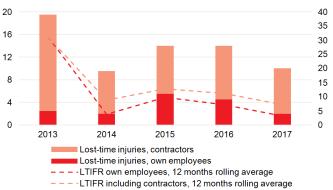
A new indicator, SIF<sup>3)</sup> is introduced in order to be able to measure HSE conditions more proactively. The SIF indicator captures the most serious incidents involving injuries, near misses, environmental harm and recorded hazardous conditions relating to electrical safety and working at height. The specific target is set to achieving a SIF indicator of 5.1 by the end of 2018.

In 2017, a total of 20 lost-time injuries were reported at Statnett, four of which related to own employees and 16 to subcontractors. The Group's LTIF and TRFI indicators for 2017 closed on 3.6 and 9.7 respectively, down from respectively 5.6 and 10.8 in 2016. The Group's SIF indicator closed the year on 5.9.





#### H indicator rolling 12-month and lost-time injuries Group



<sup>1)</sup> Frequency of work-related lost-time injuries per million hours worked.

<sup>2)</sup> Frequency of the total number of work-related injuries with or without absence per million hours worked.

<sup>3)</sup> Frequency of the number of actual and potential unintentional serious incidents per million hours worked.

Statnett achieved a 36 per cent reduction in the LTIF indicator and 55 per cent reduction in the SIF indicator compared with 2016. The improvements are attributable to a reduction in the number of potential and actual serious personal injuries, fewer high-risk incidents, and improved reporting and quality-assurance of non-conformances. There were fewer serious transport incidents, and a reduced number of serious incidents relating to electrical safety and work at height. Lost-time injuries in 2017 were generally not serious, with most incidents involving forest clearing, groundworks and surveys.

In 2017, the overall sickness absence rate was 3.4 per cent, up from 3.2 per cent in 2016. Even though Statnett's sickness absence rate is low in relation to comparable enterprises and the power industry as a whole, the company is systematically striving to maintain sickness absence at a low level. For many years, annual employee surveys have revealed high levels of job satisfaction at Statnett, and this is considered a key factor in maintaining sickness absence at a low level also in the long term. An accessible occupational health service makes a key contribution in maintaining low sickness absence rates. See the report on corporate social responsibility for further information on Statnett's HSE initiatives.

#### Operating and market information

The power situation was good in large parts of Norway throughout 2017. However, low reservoir levels, low inflows and high consumption in the area north of Ofoten, resulted in a situation that was deemed to be strained between 11 May and 9 June. This restricted flexibility in the power system and meant that any lengthy period of low inflow or long-term faults in transmission or production infrastructure could give operational challenges.

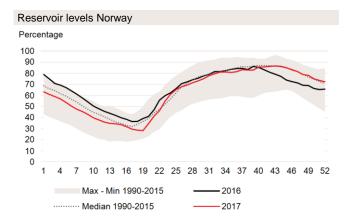
2017 was a mild year with high levels of precipitation. The mean temperature in all months was around or higher than the normal. The largest variance from the normal occurred in January, when the mean temperature was 3.9 degrees above the normal. At 156 TWh, exploitable precipitation for power production in 2017 was 23 TWh above the normal. Inflow in 2017 closed on 148 TWh, 14 TWh above the normal. At the start of 2017, reservoir levels were 65.7 per cent, 4.9 percentage points below the median (from recorded data for 1990–2016). At the end of the year, reservoir levels were 72.3 per cent, 1.9 percentage points above the median. The hydrological balance improved by around 11 TWh during 2017 and closed the year with a surplus of around 8 TWh.

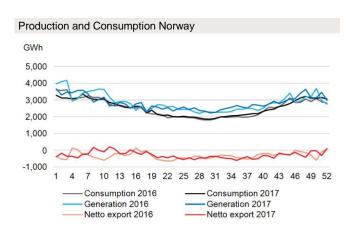
Norwegian power production and consumption totalled respectively 148 TWh and 133 TWh in 2017. This resulted in a net export of 15 TWh, down around 1 TWh on 2016.

System operations were impacted by a number of operational disconnections due to newbuilds, trouble-

shooting and normal maintenance. In many cases, implementing these measures necessitates reduced trading capacity, reduced security of supply, special regulation or a combination of these factors. For example, the voltage upgrade in Central Norway reduced the capacity out of price area NO4 and resulted in low prices in the area. In Eastern Norway, work on a new cable between Sylling and Tegneby following the fault in 2016 led to reduced capacity. In Southern Norway, significant time and resources were devoted to voltage upgrades and conversions in connection with planned new international cables.

Major operational stoppages included two long-term reductions in security of supply. A fault with the transformer at Frogner reduced security of supply to parts of Akershus in January/February. In Troms, a landslide caused a tower breakdown on the 132 kV power line between Hungern and Ullsfjord (owned by Troms Kraft). The power line was unavailable from the middle of April until the middle of May, and reduced security of supply to parts of Troms and Finnmark. A cable fault at Skagerrak 2 reduced trading capacity to Denmark from the end of July until the beginning of November. Towards the end of the year, the system was severely tested by extreme weather YIva and Aina. The extreme weather conditions resulted in several power line outages and affected production and industrial consumption, though had no long-term consequences.





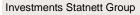
#### Development of the power system

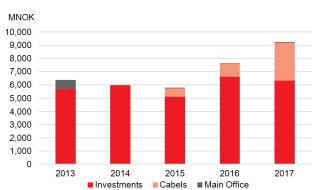
Statnett develops the power system by expanding and reinvesting in the transmission grid, and by developing system operation solutions in Norway and in collaboration with other Nordic TSOs. This development is intended to facilitate closer market integration in the Nordic region and Europe.

Statnett invested around NOK 40 billion in grid projects in the period 2012-2017. The investments includes around 950 kilometres of new power lines, upgrading of more than 375 kilometres of existing lines, 82 new and upgraded substations, as well as cable projects. The largest facilities completed in this period were Ørskog - Sogndal, Skagerrak 4, Ofoten - Balsfjord, Klæbu - Namsos - Nedre Røssåga, the Eastern Corridor, Sima-Samnanger, Varangerbotn-Skogfoss, and new cables in the Outer Oslo Fjord. Several other major projects are also under construction, including interconnectors to Germany and the UK, the Western Corridor, a new power line from Basfjord to Skaidi, the Greater Oslo Grid Plan and new power lines for wind power in Central Norway. The projects are mainly aimed at strengthening security of supply, while some projects also contribute to increased value creation by facilitating new renewable power and increased consumption.

Since 2012, Statnett has invested approximately NOK 2.5 billion in ICT solutions that support system operations. This includes regulation and market system (Fifty), new operating system (e-terra), and metering data solution (Elhub). Statnett has also invested in ICT infrastructure for a more robust operation.

The 2017 Grid Development Plan (GDP) and the System Operation and Market Development Plan for 2017–2021 (SMDP) were launched in September. The former shows that Statnett expects to invest NOK 35–45 billion in grid projects over the next five years. The investment level previously announced in 2016 has been reduced during





2017 following the completion of several major projects and a change in the planning period to 2018–2022. In addition, the costs of several projects have been reduced, while other projects have been postponed. Statnett expects investment levels to fall after 2021, when key focus will switch to the renewal of existing grid infrastructure.

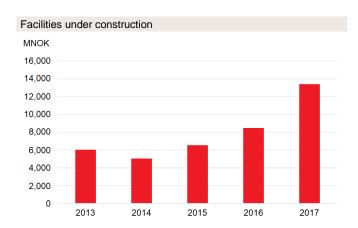
The complexity of the power system will increase and requires new solutions for system operation. This is partly due to developments in European regulations, and the development and integration of Nordic market solutions. Statnett expects to invest NOK 2.5-3 billion in ICT systems related to system and grid operations until 2021. This includes Statnett's share of regulatory and market solutions developed through the Swedish / Norwegian partnership Fifty AS.

#### Investments and projects

In 2017, Statnett invested NOK 8,377 million in grid infrastructure, built 232 kilometres of new power lines, upgraded 376 kilometres of existing power lines and commissioned 14 new or modified substations.

The Group's investments in 2017 totalled NOK 9,235 million (NOK 7,695 million) and include commissioned grid projects, projects under construction, reinvestments, ICT projects, administration buildings, and acquisitions of grid facilities.

Commissioned projects amounted to NOK 3,969 million in 2017 (NOK 5,963 million). The largest facilities commissioned in 2017 were the Kvandal to Bardufoss line (final section of Ofoten – Balsfjord), the Klæbu – Verdal – Ogndal line (part of the Klæbu – Namsos – Nedre Røssåga voltage upgrade project), and the first of two cable facilities in the Inner Oslo Fjord project. The scope of commissions in 2017 was according to plan. At the end of 2017, the value of facilities under construction was NOK 13,393 million, compared with NOK 8,473 million in 2016.



#### Important project-related events

#### Major commissioned grid projects

- Increased transformation capacity in Eastern Norway: The last of seven substations is commissioned.
- Ofoten Balsfjord: The line from Kvandal to Bardufoss was energised in September, meaning that the entire line from Ofoten to Balsfjord has been completed and commissioned at 420 kV. 132 kV Kvandal – Straumsmo 1 and 2 have been demolished, and the back-up transformer at Balsfjord energised.
- Inner Oslo Fjord: The cables between Solberg (Hurum) and Brenntangen (Vestby) were commissioned in September, meaning one out of two cable installations is completed.
- Klæbu Namsos and Namsos Nedre Røssåga, voltage upgrade: Klæbu–Nedre Røssåga was commissioned at 420 kV in September. This project includes around 460 kilometres of upgraded power lines, seven transformer substations and 15 kilometres of new power lines.

#### Grid projects under construction

- Western Corridor: insulation upgrade is completed, and almost 270 kilometres of duplex cable have been prepared for 420 kV. The voltage will be increased from 300 kV to 420 kV in 2019. New triplex for Ertsmyra – Kvinesdal was commissioned in March, and Tonstad – Feda 1 and 2 were commissioned in April. Quality nonconformities were identified for steel deliveries at several substations. This implies a tighter schedule for the project as a whole, but it does not currently affect the end date. Start-up of last part of the project has been approved, which means that the whole of the Western Corridor is under construction.
- Balsfjord Skaidi: Tower erection is well underway, where a new construction method using prefabricated foundations is accelerating progress and improving safety.
- Namsos Åfjord and Snilldal Surna: The project is more than 50 per cent complete and commissioning is planned for 2019.
- Lyse Fagrafjell: NVE recommended that OED award a licence in December.
- North Sea Link (cable to the UK): Groundworks for the convertor station in Kvilldal were completed in autumn 2017. The first section of the subsea cable is ready, with

installation due to start on the UK side in spring 2018. The work is proceeding according to plan.

- NordLink (cable to Germany): Construction works on the cable terminal and service building in Vollesfjord have been completed. Construction works on Ertsmyra substation were 94 per cent complete at the end of the year, with completion planned for the first quarter of 2018. The first two subsea cable sections are ready, and the first section was installed in autumn 2017. Installation of sea cable on the German side starts in 2018, as well as further work on the Wilster rectifier plant.
- Removal of old cables in the Outer Oslo Fjord: Lifting of the old subsea cable between Bastøy and Vestfold has been completed, and all marine operations for the project are now concluded. NVE's final inspection in May concluded that the measure had been implemented in accordance with the approved Environment, Transport and Construction Plan (ETCP). Six cables (70 kilometres) have been removed and recycled, and affected areas have been restored to original condition.
- Smestad Sogn substation and cable installation: OED granted Statnett a final licence in April, and a start-up decision was taken in June. Preparatory work was performed in autumn 2017, and tunnelling work is due to start in January 2018.
- Substation investments under implementation: An investment decision has been taken for reinvestment Kristiansand 300 kV and a new transformer substation at Kobbvatnet. In addition, decision is taken to start up Røldal substation (new transformation), Sylling substation reinvestment, Bjerkreim new substation and Fåberg reinvestment 300 kV.

#### Projects under development

- Solution chosen for Sogn Ulven including new tunnel cable connection, and renewal of Kvandal – Kanstadbotn power line.
- A licence application has been submitted for Liåsen substation, reinvestment in Marka control facility and a new transformer substation at Kobbvatnet.
- A report has been submitted for the grid reinforcement project at Haugalandet.

An overview of the largest projects is shown on the next page.

	Unit	2017	2016	2015	2014
Finished power lines	Km	232	157	137	140
Commissioned field circuit breakers	Number	50	61	63	85

\* Lower number of commissioned field circuit breakers in 2017 due to quality deviations on steel foundations that led to delays in Western Corridor.

#### List of major investment projects

See www.statnett.no for more information about the projects

Project	Region	Expected investment
Commissioned projects		
Increased transformation capacity East Norway	East	
Ofoten – Balsfjord, new 420 kV power line	North	
Inner Oslo Fjord, reinvestment cable connections	East	
Klæbu – Namsos, voltage upgrade	Central	
Under construction		
Western Corridor, voltage upgrade 1)	South	MNOK 6,600 - 6,800
Balsfjord – Skaidi, new 420 kV power line	North	MNOK 4,000 - 4,500
Namsos – Åfjord and Snilldal – Surna, new 420 kV power line 2)	Central	MNOK 2,950 - 3,090
Smestad – Sogn substation and cable installation	East	MNOK 1,250 - 1,390
Nedre Røssåga – Namsos, voltage upgrade	North	MNOK 900 - 1,000
Bjerkreim, new transformer substation <sup>3)</sup>	South	MNOK 500 - 540
Sylling, reinvestment	East	MNOK 450 - 490
Interconnectors, under construction		
Cable to UK (North Sea Link) 4)		MEUR 750 - 1,000
Cable to Germany (NordLink) 4)		MEUR 750 - 1,000
Final licences granted		
Åfjord – Snilldal, new 420 kV power line and cable installation	Central	MNOK 1,900 - 2,700
Aura/Viklandet – Surna, voltage upgrade	Central	MNOK 500 - 700
Hamang, new transformer substation	East	MNOK 480 - 700
Sogn, transformer substation reinvestment	East	MNOK 490 - 550
Planned investments, licences pending or appealed		
Lyse–Fagrafjell, new line and substation	South	MNOK 1,800 - 2,100
Haugalandet grid reinforcement	West	MNOK 1,000 - 1,900
Sogn – Ulven, new 420 kV cable installation	West	MNOK 1,050 - 1,250
Mauranger – Samnanger upgrade	West	MNOK 600 - 950
Aurland – Sogndal, voltage upgrade	East	MNOK 500 - 900
ICT projects		
Renovation of Statnett's control centre system		MNOK 600 - 800

Elhub

<sup>1)</sup> Parts of the project under planning. Final licence received for all sections and substations in project.

 $^{2)}$  Estimate does not include the Åfjord–Snilldal line, for which a final licence has also been granted.

<sup>3)</sup> Estimate shown as combined estimate for the entire project, including Statnett's and Lyse Elnett's shares.

<sup>4)</sup> Statnett's share. Exposure mainly in EUR, in range of NOK 7–9 billion. NOK per project Agreements with partners in Germany and UK are denominated in EUR. The amounts in the table show the expected interval for project costs.

MNOK 600 - 700

Costs for Projects under completion are shown in current currency; other projects are shown in 2016 currency, excl. construction loan interest and exchange rate uncertainty

#### **Financial results**

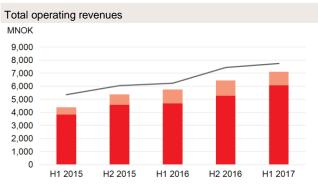
The annual financial statement for the Group has been prepared in accordance with International Financial Reporting Standards (IFRSs) and interpretations issued by the International Accounting Standards Board (IASB), as adopted by the EU. Comments to the Accounts are related to the Group's financial statement. Developments described for the Group also apply to the parent company.

#### **Operating revenues**

The Statnett Group's total operating revenues for 2017 amounted to NOK 7,401 million (NOK 6,678 million). Operating revenues from regulated activities amounted to NOK 7,103 million (NOK 6,446 million), while other operating revenues totalled NOK 298 million (NOK 232 million).

- Tariff income from fixed tariff components increased as a result of a change in the tariff rate for retail customers following a rise in Statnett's permitted revenue in accordance with current tariff model. The tariff was lower in 2017 than would have been expected from permitted revenue due to the repayment of accumulated higher revenues.
- Congestion revenues were lower than in 2016. Installation of the new Sylling–Tegneby cable and completion of voltage upgrades in central Norway increased capacity and reduced congestion revenues within Norway and towards Sweden. This was offset slightly by higher congestion revenues towards the Netherlands due to consistently high capacity at NordNed and higher power prices in the Netherlands. In 2017, half of the congestion revenues related to trading out of the synchronous area.

The Group's operating revenues primarily derive from grid activities, which are regulated through an income ceiling (permitted revenue, see Note 4) which the NVE establishes



Tariff revenue (grid tariffs) Congestion revenue —— Permitted revenue

for Statnett. In the year under review, permitted revenue amounted to NOK 7,749 million (NOK 7,445 million). The increase primarily relates to higher depreciation and amortisation and increased operating expenses. Higher asset base results in higher returns, but is offset by a lower NVE interest rate. Higher power prices increase the permitted revenue for transmission losses.

If accounting revenues from grid activities deviate from permitted revenue in a year this gives rise to higher or lower revenue. Higher or lower revenue will balance out over time through adjustment of future tariffs. In 2017, Statnett had a lower revenue of NOK 646 million (NOK 999 million), excluding interest. At the reporting date, the accumulated lower revenue, including interest, amounted to NOK 303 million. Higher/lower revenues are not recognised in the balance sheet.

#### **Operating expenses**

The Group's operating expenses totalled NOK 6,089 million in 2017 (NOK 5,526 million).

- System services are costs related to Statnett SF's responsibility for maintaining an instantaneous balance in the power system and satisfactory security of supply. Lower costs for system services mainly relate to lower costs for special regulation. This in turn was attributable to a low number of outages and the postponement of some planned disconnections to 2018, including due to delays in the Western Corridor. In addition, a mild winter resulted in slightly lower costs for tertiary reserves.
- Transmission losses were unchanged, due to the fact that higher power prices were offset by lower loss volumes.
- Salaries and personnel costs increased due to higher activity levels, slightly offset by an increase in internal hours spent on investment projects recognised in the balance sheet.



#### **Operating expenses**

(MNOK)	2017	2016	2015	2014
				-
System services	435	479	451	609
Transmission losses	642	642	466	586
Salaries and personnel costs	951	887	591	715
Depreciation, amortisation and impairments	2,403	2,144	1,626	1,150
Other operating expenses	1,658	1,374	1,058	1,125
Total operating expenses	6,089	5,526	4,192	4,185

- Higher depreciation charges are primarily attributable to a higher asset base and a change in estimated residual values for back-up power plants due to the fact that Statnett no longer has an emissions licence for these facilities following the commissioning of Ørskog– Sogndal. Impairments were also recognised for earlyphase projects due to premature balance-sheet recognition of costs incurred in previous years.
- Other operating expenses increased as a result of higher Group activity and staffing levels. The increase primarily relates to operations and maintenance, emergency preparedness, ICT service agreements, operation of office premises and insurance costs. Property tax rose due to an increase in the asset base, new valuations and the introduction of property tax in several municipalities. Other operating expenses were also up due to a prior-year adjustment concerning early-phase project costs that do not qualify for recognition in the balance sheet. Currency hedging on procurement contracts that do not satisfy the criteria for hedge accounting resulted in higher costs. There was a net exchange loss on customer and supplier accounts, compared with a net gain in 2016.

Statnett's efficiency program has contributed to a lower cost increase than the company's increased activity should indicate. The program's target is 15 per cent increased cost effectiveness from 2013 to 2018. Unit cost for operation of Statnet's assets shows an improvement of 13 per cent by the end of 2017. The program also includes investment activities where unit cost reductions show a positive development and the expected total cost for several projects is reduced. Overall, Statnett expects to achieve the program's goals.

#### **Income statement**

In 2017, Statnett posted a consolidated operating profit of NOK 1,312 million (NOK 1,152 million). The underlying operating profit (adjusted for the change in the year's higher / lower revenue not recognised in the balance sheet) came in at NOK 1,958 million (NOK 2,155 million).

Consolidated net financial items closed on NOK -336 million (NOK -369 million).

- The decrease in net financial expenses was primarily attributable to unrealised gains on standalone derivatives and exchange gains on bank deposits held in foreign currency due to exchange rate fluctuations. High financial income and expenses compared with 2016 were attributable to exchange rate fluctuations during the year and high currency holdings.
- Interest expenses on loans were higher as a result of increased net borrowings, which were partially offset by a lower interest rate.
- Net financial items includes income from associates, which in 2017 totalled NOK 20 million (NOK 17 million).

In 2017 the Group's profit after tax was NOK 13 million (NOK 645 million). The underlying profit after tax, adjusted for the change in higher / lower revenue not recognised in the balance sheet, closed on NOK 1,304 million (NOK 1,398 million). The reduction in the underlying result is primarily attributable to higher operating expenses due to higher Group activities and depreciation, amortisation and impairments, which were partially offset by higher permitted revenue in 2017.

#### Cash flow and balance sheet

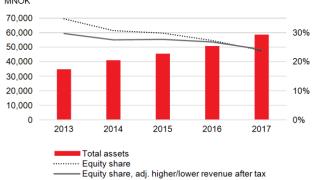
The net cash flow for the period amounted to NOK -981 million (NOK 604 million).

- The consolidated cash flow from operating activities in 2017 closed on NOK 3,615 million (NOK 3,235 million)
- The net cash flow from investing activities was NOK 10,764 million (NOK -7,788 million)
- Interest-bearing liabilities of NOK 5,801 million were repaid (NOK 2,692 million)
- Proceeds from new interest-bearing liabilities amounted to NOK 12,549 million (NOK 9,159 million)
- At the reporting date, consolidated cash and cash equivalents and market-based securities totalled NOK 2,405 million (NOK 3,031 million)
- Total unused drawdown facilities amounted to NOK 10,200 million at the end of 2017

At the end of 2017, the Group had a total capital of NOK 58,721 million (NOK 50,743 million)

- Interest-bearing liabilities totalled NOK 39,189 million (NOK 32,633 million), and included guarantees under the CSA scheme of NOK 2,795 million (NOK 2,729 million). The market value of interest and currency swaps (value hedges) relating to interest-bearing liabilities amounted to NOK 2,359 million (NOK 2,844 million). Interest-bearing liabilities, adjusted for the above, totalled NOK 36,830 million (NOK 29,789 million).
- Equity closed on NOK 14,011 million (NOK 13,867 million). Statnett SF's unrestricted equity amounted to NOK 7,736 million (NOK 7,677 million). Adjusted for accumulated lower revenue after tax, the consolidated equity ratio was 24 per cent (27 per cent).

Total assets and equity ratio



#### Subsidiaries and associates

Statnett SF is required to stand ready to provide heavy transport to secure the Norwegian power supply. The wholly owned subsidiary Statnett Transport AS is responsible for ensuring that these obligations are fulfilled in an efficient and competitive manner.

The wholly owned subsidiary NordLink Norge AS is responsible for construction and operation of Statnett's share of NordLink, a subsea cable installation between Norway and Germany.

The wholly owned subsidiary Elhub AS is responsible for development, and from February 2019, operation of a central data hub for meter values and market processes in the Norwegian power market (Elhub). NVE has assigned this task to Statnett under the Energy Settlement Licence.

In December 2016, Statnett acquired the remaining 50 per cent of shares in Lyse Sentralnett AS from Lyse Elnett AS, and the company changed its name to Statnett Rogaland AS. Effective 1 January 2017, all employees and assets in Statnett Rogaland AS were transferred to Statnett SF in a sales transaction. Consequently, the company had limited activities for the rest of 2017.

Fifty AS was established in 2017 by Statnett. Swedish power grid entered a 50 percent stake in February 2018. Fifty AS aims to develop and operate regulation and market systems to ensure the balance of the Nordic power system.

Statnett SF owns a 33.3 per cent stake in eSett OY, which delivers balance settlement services to market players in Finland, Sweden and Norway, and was established in May 2017.

Statnett SF holds a 33.3 per cent stake in KraftCERT AS, whose object is to monitor energy companies' IT systems and manage IT security incidents. The company also assists other organisations in the power industry in Norway in managing and preventing attacks on ICT systems.

Statnett SF holds a 28.2 per cent stake in Nord Pool AS.

For information about the companies' recorded values in Statnett SF, see Note 17 to the annual financial statements.

#### Employees

#### Recruitment and employee development

Statnett has an important and complex social mission and must secure appropriate competence for the various tasks the company performs. Statnett is currently in a growth phase driven by an extensive and resource-intensive investment programme. At the end of 2017, Statnett had 1,415 employees, compared with 1,306 at the end of the previous year. With the scope of investments expected to decrease after 2021, the company has emphasized the use of temporary solutions and outsourcing projects where flexibility is required. This will improve the company's ability to adapt resource consumption over time.

Statnett is actively endeavouring to ensure that the company can adapt to long-term changes in competence requirements and reduced investment levels after 2021. The company is deliberately working on profiling Statnett as an ICT company. In this year's Universum survey among professionals, Statnett won the award as "Climber of the Year" in the ICT category. "Climbers of the Year" are the companies that have climbed ten or more places compared with last year's survey. Statnett has climbed 20 places.

Statnett performs an annual organisation survey which provides information about employee engagement, job satisfaction, opportunities to exert influence, management and development opportunities. The survey had high participation and overall results showed a good score. Statnett enjoys high levels of employee engagement. The employees have a significant degree of influence over their own tasks and solid skills to solve them. Statnett's employees receive strong support from their managers and enjoy a constructive dialogue on potential improvement areas. The employees considers the HSE culture to be good.

Statnett has a low turnover of 2.4 percent, and the average retirement age in 2017 was 67.2 years. However many of today's employees will reach retirement in the next few years, and Statnett therefore emphasizes a good senior policy. This provides important flexibility when the company is to recruit new employees and balance between continuation and renewal of important competence. Statnett has a long-term perspective when the company recruits employees. The energy sector and Statnett's business is characterized by rapid technological and digital development. The company is committed to develop the competence of Statnett's employees. This includes both a trainee program and an apprenticeship program for the energy assembly profession. The company has introduced new systems for competence management, including employee development plans, and has implemented an extensive development programme for all managers. This provides the most important foundation for facilitating continuous competence development and an attractive and futureoriented workplace.

#### Equality and diversity

Statnett bases its activities on the ILO's core conventions. The company shall guarantee clear pay and working conditions that incorporate all statutory requirements relating to health and safety. The same also applies for suppliers and their subcontractors. The company intervene if it identifies breaches of rights, as was the case for several supplier-related issues during the year.

Statnett adopts a zero-tolerance approach to discrimination and harassment. This approach is embedded in the Code of Conduct, and is followed up by Statnett's Ethics Officer, Representative, local Safety employee performance reviews and organisation surveys. Statnett works preventively and purposefully to avoid censurable conditions and conducts surveys regularly. In an anonymous survey, 0.8 per cent of respondents stated that they had experienced sexual harassment over the last 12 months. A total of 2.2 per cent reported that they had encountered discrimination, and 2.2 per cent stated that they had experienced bullying in a work context. These results are confirmed via other channels for notification of censurable conditions.

It is important that Statnett maintains diversity with regard to the gender, age and background of its employees. Four per cent of employees recruited in 2017 were from a foreign background. The percentage of women employees rose from 26.1 per cent in 2016 to 26.5 per cent in 2017. The percentage of women in the energy sector as a whole is 20 per cent. At the reporting date, four of Statnett's nine Board members and two of the seven-strong Group management team were women. In total, 29.8 per cent of all managers

Year 2017	Women	Men	Total	Part-time employees
Permanent employees	371	1,044	1,415	23
Temporary employees	20	89	109	3
Apprentices	3	36	39	-

in the Group are women. Women and men with approximately the same qualifications and experience receive the same pay in comparable positions. If differences are discovered, it is assessed whether the differences can be explained by factors other than gender before assessing measures.

#### Risk

Statnett adopts a holistic approach to risk management, commensurate with the Group's management of critical societal infrastructure. Good risk management and high emergency preparedness are critical in a period when the company is making historically high investments while striving to maintain sound operation of an ageing grid with high utilisation rates. Risk management covers the entire business perspective, prioritising potential consequences for HSE, supply of electrical power, finance and reputation. For a more detailed report on Statnett's framework for risk management and specific risks, please refer to the separate section on risk management.

#### Corporate social responsibility

Statnett's social mission is to ensure a stable and secure electricity supply, contribute to value creation in society through an efficient and well-functioning power system and facilitate the use of electricity as a means for Norway to realise its climate targets. This social mission underpins Statnett's approach to corporate social responsibility and also provides Statnett with a wider social perspective. Statnett attach importance to understanding society's expectations of how Statnett fulfils its social mission, and endeavour to live up to this in a way that generates mutual trust and respect. In this way social responsibility contributes to increase Statnett's influence and ability to implement, and thereby ensuring that Statnett's approach to solving the social mission is sustainable.

Statnett reports on corporate social responsibility in accordance with the Core level of the Global Reporting Initiative (GRI). Statnett additionally report in accordance with the sector-specific indicators and guidelines for the energy sector (GRI Sustainability Reporting Guidelines & Electric Utility Sector Disclosures). Statnett believes that its CSR reporting activities fulfil the requirements set out in the expanded text of Section 3-3(c) of the Norwegian Accounting Act, adopted in 2013. For a more detailed report on corporate social responsibility, please refer to the separate report in the Annual Report.

#### Climate and the environment

Statnett systematically work on preventive environmental measures to reduce the likelihood of serious incidents in the construction, operation and maintenance of the grid, and to minimise any negative climate and environmental impacts. The most important way Statnett contributes to a reduction in greenhouse gas emissions is by facilitating use of electricity in new areas and renewable development. It is also important to maintain biodiversity and other local and national environmental values to the greatest extent possible. Statnett endeavour to identify solutions that provide a good aesthetic fit with the environment and involve limited encroachment on new nature areas. Statnett's facilities shall be planned and constructed in a way that reduces greenhouse gas emissions from own activities and does not pollute the environment. For a more detailed report on the climate and the environment, please refer to the report on corporate social responsibility in the Annual Report.

#### Innovation and technology development

Statnett strives to develop and use new technology as well as develop new ways to collaborate in Norway and Nordic region. The main purpose of the research and development (R&D) initiatives is to contribute to increased value creation, and safe, cost-effective and sustainable utilisation of Norwegian energy resources. R&D is a tool for realising Statnett's long-term ambitions. The FoU initiatives are split into three main areas: sustainable system development, innovative technology and smart grid development.

In 2017, Statnett led the Nordic R&D partnership between Statnett, Fingrid, Svenska Kraftnät, Energinet.dk and Landsnet. Statnett's R&D division is also a member of the European Network of Transmission System Operators' Research, Development and Innovation Committee (ENTSOE-RDIC), where new EU projects are planned, discussed and followed up. In addition, extensive development of solutions through ICT projects, such as control centre systems, regulation and market systems (Fifty), Elhub and infrastructure management support.

For a more detailed report on innovation and technology development, please refer to the report on corporate social responsibility in the Annual Report.

#### Corporate management

Sound corporate management is a prerequisite for stable long-term value-creation and helps to ensure that Statnett delivers products and services that satisfy all relevant requirements and expectations. Statnett's framework for corporate management is based on the Group management model, which clarifies role allocation between the owner, the Board and administration. Statnett complies with the government's Code of Conduct on Corporate Governance and the recommendations of the Norwegian Corporate Governance Board (NUES).

See www.statnett.no for further information on corporate management and how Statnett complies with NUES recommendations.

#### The work of the Board of Directors

The Board of Directors' overarching remit is to ensure that the Statnett Group develops in accordance with political frameworks and applicable Group strategy. Kev considerations in this context include sustainable operation, development of the power system of the future, openness and transparency in the company's dealings with the wider community, and execution of the company's corporate social responsibility. Statnett is currently in a phase of historically high investments, while continuing to operate an ageing transmission grid with high levels of utilisation. Consequently, in 2017 the Board worked on a wide spectrum of tasks, ranging from ongoing operational issues and security of supply to an extensive investment programme and the Group's strategic development towards 2025.

The Board also focused on following up the many effective HSE improvements in 2017 and will maintain this focus in future years in order to ensure that Statnett is one the leading European TSOs in HSE.

The Board is constantly updated on the operational situation in the power system and, for example, the impact of challenges relating to extreme weather and extensive disconnections on security of supply.

Collaboration with other power-grid companies in Norway will play an important role in managing future system challenges and securing a collectively efficient grid infrastructure. The Board has prioritised improving involvement and stakeholder dialogue in the development of Statnett's planning frameworks, in particular with regard to the Grid Development Plan (GDP) and the System Operation and Market Development Plan (SMDP). For the first time these reports were submitted for public hearing and published simultaneously. This holistic presentation of Statnett's central planning frameworks facilitates clearer dialogue and better communication with all parties with an interest in planning frameworks.

In 2017, the focus was on Nordic-level collaboration, and agreement was reached on pan-Nordic balancing solutions. This type of collaboration is expected to generate significant savings and facilitate efficient market solutions. Ever closer integration of the European power market requires close collaboration with premise providers in Norway, Statnett's associate companies in Europe, through the European Network of Transmission System Operators (ENTSO-E), and with European authorities.

The Board systematically monitors the project portfolio and is aided in this work by the Board's subcommittee, the The Project Committee. portfolio is performing satisfactorily, and a number of wide-ranging construction projects have been implemented and commissioned on schedule, on budget and in line with HSE requirements. The Board is taking measures to manage a significant increase in projects currently under construction, including two capital-intensive interconnectors. Statnett is investing significant resources in new digital solutions for the power market, system operations and administrative support systems. These systems have to cover many complex needs. The Board has attached priority to ensuring that the future ICT portfolio is based on shorter, limited-scope development processes rather than extensive end-to-end solutions.

The Board has prioritised work on company-wide improvements with a view to facilitating a digital future and meeting established efficiency targets. It is important to develop clear targets for a levelling out of tariffs during the strategy period. The Board has discussed the development of Statnett's tariff model in the context of the future development of the power system and Statnett's strategy. Proposed changes to the tariff model are sent on public hearing. The Board has reviewed work on compliance and internal control, including a detailed survey of irregularities in 2016 and compliance in 2017. Statnett is a regulated TSO and is therefore subject to a number of control tests. The organisation is essentially profession-based, and has a stable, skilled and experienced workforce. The risk of inadequate compliance is deemed moderate.

The Board attaches a high priority to ICT security. Collaboration with other stakeholders in the power sector, relevant resource pools and authorities is an important means for developing shared competence and capability. The Board reviewed a detailed survey of information security in 2017.

Despite high activity levels, Statnett has a low sickness absence rate, scores highly in employee surveys and has a low staff turnover rate. The Board strives to ensure that Statnett's various divisions and departments employ a reasonable mix of permanent and hired-in employees.

The Board closely monitors the company's financial position. A robust 'A' rating will enable the company to secure financing on competitive terms and is an important contribution to a cost effective solution of a capital intensive social mission.

Statnett's overall performance was good in 2017. The Board would like to take this opportunity to thank every employee for excellent contributions and loyalty and looks forward to continuing this partnership for the future benefit of Statnett.

For more information on the Board's responsibilities and roles, please refer to <u>www.statnett.no</u>,

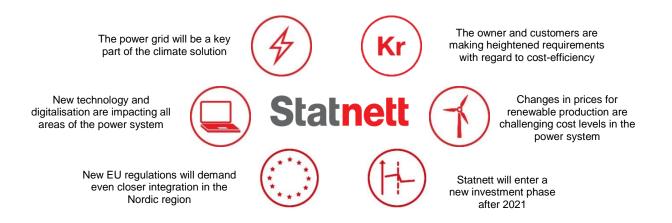
#### Attendance at Board meetings

Board meetings had an attendance rate of 99,9 per cent in 2017. The table below shows each Board member's attendance record at Board meetings and subcommittees.

#### Changes in Board composition

There were no changes in the composition of the Board in 2017.

	Board Meeting (9 meetings)	The Audit Committee (8 meetings)	Project Committee (9 meetings)	Remuneration Committee (4 meetings)
Per Hjorth (Chairman of the Board)	9			
Synne Larsen Homble (Vice-President of the Board, Chair of the Remuneration Commitee)	8			4
Maria Sandsmark	9		9	4
Egil Gjesteland (Chair of the Project Commitee)	9		9	
Kirsten Indgjerd Værdal	9	7		
Einar A. Strømsvåg (Chair of the Audit Committee)	9	8		
Steinar Jøråndstad	9		9	
Karianne Burhol	9	8		
Nils Ole Kristensen	9	0		4



#### Outlook

The power grid will be a key part of the climate solutions of the future. Increased construction of renewable power and use of electricity in new areas will help Norway to achieve its climate targets. However, these changes will also lead to a greater variation in production and consumption, and thus increase the need for transmission capacity. As electricity is used for more and more purposes, so society's dependence on a secure power supply will increase. It will be critical to view all the TSO's tools in context in order to maintain an efficient transmission system. Securing an optimal balance between grid measures, digitalisation and market solutions will be absolutely pivotal in this context.

By the end of 2021, Statnett will have completed large parts of the planned expansion of the transmission grid, primarily through a number of megaprojects and newbuilds. After 2021, the scope of investment will be scaled back and primarily involve renewal and reinvestment projects. Here, the focus will be on increased utilisation of the existing grid, and cost-effective implementation of required reinvestments.

Climate targets and falling costs for wind and solar power will continue to drive development of renewable energy in the EU and the Nordic region. Increased power exchange and more variable renewable power production are heightening the need for balancing in the Nordic synchronous area. This will necessitate efficient and automated system and market solutions together with stronger Nordic collaboration. This is consistent with regulatory developments in the EU, which are tending towards closer integration of system operation regionally, and a clearer role for local distribution system operators (DSOs). To address these challenges Energinet, Svenska kraftnät, Fingrid and Statnett have agreed on a new balancing model which assigns the companies clear responsibility for balancing in their respective areas. Svenska kraftnät and Statnett will have a coordinating role in this balancing.

In total, Norwegian distribution system operators plan to invest NOK 140 billion over the next ten years. This will result in a significant increase in the grid rental to consumers, which can be challenging when the prices of alternatives fall. Statnett shall contribute to a competitive power system by levelling out the transmission grid tariff once the major investments have been completed. Statnett will achieve this by increasing utilisation of the grid through further electrification of society, and new consumption, along with increased cost-efficiency driven by digitalisation and smart technological solutions.

Statnett will develop a tariff model that sends clearer price signals to production and consumption. Together with the use of price areas, the aim is to ensure efficient development and utilisation of the grid.

In total, 40 per cent of installed production capacity in Norway relates to regional and distribution grids. Changes in consumption patterns and greater power exchange are generating new challenges for planning and operation of the power system. Efficient development and utilisation of the power system requires that all stakeholders work together to ensure sufficient flexibility at all grid levels. This makes market solutions that stimulate flexibility in consumption important and heightens requirements for coordination and collaboration between Statnett and the local distribution system operators (DSOs) moving forward.

Digitalisation and technology development are a prerequisite for realising the goal of an efficient, smart and safe power system. Statnett will prioritise competence development of its own workforce, forward-looking manager development and more efficient and digital work forms and processes. Statnett will use smart solutions in infrastructure management, system operation and grid development, and improve and streamline the way the organisation works. R&D plays an important role in developing new market and system solutions and ensuring that new technology can be used in future development projects.

Statnett has set itself a target of increasing efficiency by 15 per cent by the end of 2018, based on cost levels in 2013. The efficiency programme has produced the expected results and in 2018, Statnett will establish new efficiency targets for the coming years, which will include more comparisons with other companies.

#### Share capital and dividend

In 2014, Statnett received an equity injection of NOK 3.25 billion, with the aim of achieving a minimum equity ratio of 25 per cent by the end of 2017. Consequently, the company's equity was aligned with the Group's business and risk profile during the period.

In connection with the equity injection, and in accordance with Statnett's application, no dividend was paid for the 2013 financial year, and dividends for the financial years 2014–2016 were set at 25 per cent. The State Budget for 2017 proposed maintaining the dividend at 25 per cent for a further two years. For the 2017 financial year, a dividend of 25 per cent has been proposed in line with the Government's proposal in the 2018 State Budget.

#### Going concern

Per Hjorth

Chair

Kirsten Indgjerd Værdal

Board member

In accordance with Section 3-3a of the Norwegian Accounting Act, the Board confirms that the annual financial statements have been prepared in accordance with the going concern principle.

#### Appropriation of profit for the year

Statnett posted a profit after tax of NOK 813 million. Statnett's Board of Directors proposes a dividend of NOK 326 million, which equates to 25 per cent of the dividend basis. The dividend basis is defined as the Group's net result for the year after tax, adjusted for the change in the year's post-tax higher / lower revenue. The proposed dividend is in accordance with the adopted dividend policy for the enterprise and is deemed to be reasonable based on Statnett's equity and liquidity.

Accordingly, the Board proposes the following appropriation of Statnett SF's net result for the year:

Proposed dividend	326
Transferred to other equity	402
Total appropriations	728

#### Declaration from the Board of Directors and CEO

We declare that to the best of our knowledge the annual financial statements for 2017 have been prepared in accordance with IFRSs and disclosure requirements pursuant to the Norwegian Accounting Act, and that the disclosures in the financial statements provide a true and fair view of the company's and the Group's assets, liabilities financial position and performance as a whole, and that the information contained in the Report from the Board of Directors provides a true and fair view of the company and the Group, together with a description of the key risk and uncertainty factors facing the Group.

## Statnett's Board of Directors

SynneHomble

Synne Larsen Homble Deputy Chair

Kananne Burhol

Karianne Burhol Board member

Vin Dle Like

Nils Ole Kristensen Board member

Maria Serdsmart

Maria Sandsmark Board member

Hunn Forimothad

Steinar Jøråndstad Board member

Auke Lont President and CEO

Egil Gjesteland Board member

Ciner Streamerton

Einar Anders Strømsvåg Board member

Oslo, 12 April 2018

### Statement of comprehensive income

Pare	nt company				Group
2016	2017	(Amounts in NOK million)	Note	2017	2016
		Operating revenue			
6,412	7,135	Operating revenue regulated operations	4	7,103	6,446
338	359	Other operating revenue	4	298	232
6,750	7,494	Total operating revenue		7,401	6,678
		Operating costs			
479	435	System services	5	435	479
642	642	Transmission losses	5	642	642
921	962	Salaries and personnel costs	6, 7, 20	951	887
2,113	2,488	Depreciation, amortisation and impairment	8, 9	2,403	2,144
1,442	1,743	Other operating costs	24	1,658	1,374
5,597	6,270	Total operating costs		6,089	5,526
1,153	1,224	Operating profit		1,312	1,152
330	492	Financial income	10	443	292
667	823	Financial costs	10	779	661
-337	-331	Net financial items		-336	-369
816	893	Profit before tax		976	783
148	165	Tax	16	163	138
668	728	Profit for the year		813	645
		Other comprehensive income			
-	-6	Changes in fair value, held-for-sale investments	25	-6	-
-22	-110	Changes in fair value for cash flow hedges	12, 25	-110	-22
3	23	Tax effect	16, 25	23	3
-19	-93	Other comprehensive income to be reclassified to profit or loss in subsequent periods		-93	-19
94	-293	Changes in estimate deviations of pension liabilities	7, 25	-293	94
-24	67	Tax effect	7, 16, 25	67	-24
70	-226	Other comprehensive income not to be reclassified to profit or loss in subsequent periods		-226	70
51	-319	Total other comprehensive income		-319	51
		·		-	
719	409	Total comprehensive income		494	696

### **Balance sheet**

Parent	company			Gro	oup
31.12.2016	31.12.2017	(Amounts in NOK million)	Note	31.12.2017	31.12.2016
		Assets			
		Fixed assets			
367	360	Intangible fixed assets	8	413	421
33,477	35,335	Tangible fixed assets	8	35,653	33,861
6,444	8,519	Plants under construction	9	13,393	8,473
1,221	2,318	Investment in subsidiaries	17	-	-
54	54	Investment in associates	17	94	90
85	-	Pension assets	7	-	85
3,628	3,334	Financial fixed assets	11, 12, 14, 15	3,200	3,494
45,276	49,920	Total fixed assets		52,753	46,424
		Current assets			
2,728	6,244	Trade accounts and other short-term receivables	11, 12, 14, 15	3,563	1,288
	652	Market-based securities			·
315	870		11, 12, 14, 15	1,086	731
1,798 <b>4,841</b>	7,766	Liquid assets Total current assets	11	1,319 <b>5,968</b>	2,300 <b>4,319</b>
50,117	57,686	Total assets		58,721	4,319 50,743
50,117	57,000			50,721	50,745
		Equity and liabilities Equity			
5,950	5,950	Contributed capital		5,950	5,950
7,677	7,736	Other equity accrued		8,061	7,917
	-	Non-controlling interest		-	
13,627	13,686	Total equity		14,011	13,867
,	,	· · · · · · · · · · · · · · · · · · ·			
		Long-term liabilities			
1,145	902	Deferred tax	16	944	1,205
205	352	Pension liabilities	7	354	207
521	578	Other liabilities	21	578	521
25,957	35,377	Long-term interest-bearing debt	11, 12, 13, 15	35,217	25,957
27,828	37,209	Total long-term liabilities		37,093	27,890
		Current liabilities			
6,874	4,169	Short-term interest-bearing debt	11, 12, 13, 15	3,972	6,676
1,788	2,303	Trade accounts payable and other short-term debt	11, 12, 13, 15	3,310	2,300
1,700	2,303	Tax payable	16	3,310	2,300
8,662	6,791	Total current liabilities	10	7,617	8,986
0,002	5,731			7,017	0,300
50,117	57,686	Total equity and liabilities		58,721	50,743

- Chyatte

Per Hjorth Chair

Synne Larsen Homble Deputy chair Himme For in other Cin or Strewer on

SynneHomble Maria Serdsmart Maria Sandsmark

Board member

Oslo, 12 April 2018 Statnett's Board of Directors

Vir Ole Lite

Nils Ole Kristensen Board member

E Ahl Egil Gjesteland

Kananne Burhol

Karianne Burhol

Board member

Board member

K2.20 Kirsten Indgjerd Værdal

Board member

Auke Lont President and CEO

Board member

Steinar Jøråndstad Einar Anders Strømsvåg Board member

Group

### Statement of changes in equity

Parent company

Total equity Nonallocated Contri-buted Other to owner of Statnett Other Contricontrolequity Other ling equity accrued Other Total Total buted (Amounts in NOK million) capital items equity equity interest SF items capital 13,265 01.01.2016 13,605 7,773 5,950 5,950 -159 7,474 41 13,564 -159 668 668 Profit/loss for the year 645 1 644 644 \_ \_ \_ \_ Other comprehensive income, -19 70 51 51 70 51 -19 --note 25 -357 -357 -357 Dividends declared -357 -357 -----Purchase subsidiary -77 -42 -35 -35 \_ --5,950 -178 7,855 13,627 31.12.2016 13867 13,867 8,095 -178 5,950 -8,095 5,950 -178 7,855 13,627 01.01.2017 13,867 13,867 -178 5,950 -728 728 Profit/loss for the year 813 813 813 \_ \_ \_ Other comprehensive income, -93 -226 -319 -319 -319 -226 -93 --note 25 -350 -350 Dividends declared -350 -350 -350 -\_ -5,950 -271 8,007 13,686 31.12.2017 14,011 14,011 8,332 -271 5,950 \_

# **Cash flow statement**

Parent	company				Group
2016	2017	(Amounts in NOK million)	Note	2017	2016
		Cash flow from operating activities			
816	893	Profit before tax		976	783
33	-3	Loss/gain(-) on sale of fixed assets	8	-3	33
2,113	2,488	Depreciation, amortisation and impairment	8	2,403	2,144
-	-	Paid taxes	16	-10	-8
336	375	Interest recognised in the income statement	10	362	322
19	24	Interest received	10	33	28
-340	-396	Interest paid, excl. construction interest	10	-396	-340
87	262	Changes in trade accounts receivable/payable	11, 14	76	345
-120	239	Changes in other accruals	11	174	-72
2,944	3,882	Net cash flow from operating activities		3,615	3,235
		Cash flow from investing activities			
14	88	Proceeds from sale of tangible fixed assets	8	88	14
-6,327	-8,262	Purchase of tangible fixed assets, other intangible fixed assets and plants under construction	8, 9	-10,661	-7,547
-142	-148	Construction interest paid	9	-216	-171
-78	-	Purchase of subsidiary, net of cash acquired	17	-	-78
-270	-745	Capital contribution to subsidiary	17	-	-
-	9	Changes in investment in associates and other companies	17	9	-
-6	-	Changes in long term loan receivables	11, 14	-	-14
-964	-1,942	Changes in short term loan receivables	11, 14	-	-
29	19	Dividend received	10, 17	16	8
-7,744	-10,981	Net cash flow from investing activities		-10,764	-7,788
		Cash flow from financing activities			
9,159	12,549	Proceeds from new interest-bearing debt	11, 13	12,549	9,159
-2,692	-5,801	Repayment of interest-bearing debt	11, 13	-5,801	-2,692
-941	105	Changes in collateral under CSA (Credit Support Annex) agreements	11, 13	105	-941
137	818	Proceeds from sale of market-based securities	11, 14	958	350
-149	-1,150	Purchase of market-based securities	11, 14	-1,293	-362
-357	-350	Dividend paid and group contributions		-350	-357
5,157	6,171	Net cash-flow from financing activities		6,168	5,157
		Net cash flow for the period			
1,441	1,798	Cash and cash equivalents at the start of the period	11	2,300	1,696
1,798	870	Cash and cash equivalents at the close of the period	11	1,319	2,300

Restricted bank deposit amounting to NOK 241 million for the parent company and NOK 242 million for the group is included in cash and cash equivalents as at 31 December, 2017.

Unused credit facilities of NOK 10,200 million are not included in cash and cash equivalents.

Statnett SF (the parent company) is a Norwegian state-owned enterprise that was formed on 20 December 1991. The sole owner of Statnett SF is the Norwegian State, represented by the Ministry of Petroleum and Energy (MPE). Statnett has issued bond loans listed on the Oslo Stock Exchange. The head office is located at Nydalen allé 33, 0484 Oslo.

## Basis for preparation of the financial statements

The consolidated financial statements for the Statnett Group and the financial statements for the parent company, Statnett SF, have been prepared in compliance with the current International Financial Reporting Standards (IFRS), as adopted by the EU.

All subsequent references to "IFRS" imply references to IFRS as adopted by the EU and the Norwegian Accounting Act. The financial statements have been prepared on the basis of the historical cost principle, with the following exceptions:

- All derivatives, and all financial assets and liabilities classified as "fair value carried through profit or loss" or "available for sale", are carried at fair value.
- The carrying value of hedged assets and liabilities is adjusted in order to register changes in fair value as a result of the hedging.
- Assets are measured at each reporting date with a view to impairment. If the recoverable amount of the asset is less than the carrying value, the asset is written down to the recoverable amount.

### **Consolidation policies**

### **Consolidated companies**

The consolidated financial statements comprise Statnett SF and subsidiaries in which Statnett SF alone has a controlling influence. Normally, Statnett SF is assumed to have controlling influence when direct or indirect ownership interests make up more than 50 per cent of the voting shares. If Statnett owns less than 100 per cent of the voting shares, or, through agreement, has less than 100 per cent of the votes, further assessments will be made to determine whether the Group actually has controlling influence.

The consolidated financial statements have been prepared using uniform accounting principles for equivalent transactions and other events under otherwise equal circumstances. The classification of items in the income statement and balance sheet has taken place in accordance with uniform definitions. The consolidated financial statements are prepared in accordance with the acquisition method of accounting and show the Group as if it was a single entity. Balances and internal transactions between companies within the Group are eliminated in the consolidated financial statements.

The acquisition cost of shares in subsidiaries is offset against equity at the time of acquisition. Any excess value beyond the equity of the subsidiaries is allocated to the asset and liability items to which the excess value can be attributed. The portion of the acquisition cost in a business combination that cannot be attributed to specific assets, represents goodwill.

Statnett SF's Pension Fund is not part of the Statnett Group. Contributed equity in the pension fund is measured at fair value and classified as financial fixed assets.

#### Joint arrangements

A joint arrangement is an arrangement where two or more parties have joint control, and where the parties contractually agree to share control of the arrangements. Joint control is the agreed sharing of control of a joint arrangement, which exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control.

#### Joint operation

A "joint operation" is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the assets and obligations for the liabilities relating to the arrangement. The Group recognises its share of assets, liabilities, revenues and operating expenses relating to its involvement in a joint operation.

The Group has joint operations concerning the construction and operations of foreign subsea cables.

#### Investment in associated companies

Associates are companies where Statnett has significant influence, i.e. Statnett can influence financial and operational decisions in the company, but does not have control of the company. Normally these will be companies where the Group owns between 20 and 50 per cent of the voting shares.

Associates are evaluated according to the equity method. This means that the Group's share of the result for the year after tax and amortisation of any excess value is reported the income statement. The accounts of associates are restated in accordance with IFRS. In the consolidated balance sheet, ownership interests in associates are carried as financial fixed assets at historic cost plus accumulated profit less dividends and impairment if applicable.

Notes

On each reporting date, the Group considers whether there are any objective indications of impairment in value. If there are any such indications, the investment will be tested for impairment. Write-downs are made if the recoverable amount (highest of the fair value less sales costs and value in use) is lower than the recognised value.

#### Purchase/sale of subsidiaries and associates

In the case of acquisition or sale of subsidiaries and associates, they are included in the consolidated financial statements for the part of the year they have been a part of or associated with the Group.

#### Investments in other companies

Investments in companies in which the Group owns less than 20 per cent of the voting capital are classified as "available for sale" and are carried at fair value in the balance sheet if they can be reliably measured. Value changes are recognised under other comprehensive income in the statement of comprehensive income.

#### Investments in subsidiaries and associates in Statnett SF (parent company accounts)

Investments in subsidiaries and associates are accounted for in accordance with the cost method in the parent company accounts. The group contribution paid (net after tax) is added to the cost price of investments in subsidiaries. Group contributions and dividends received are recorded in the income statement as financial income as long as the dividends and Group contributions are within the earnings accrued during the period of ownership. Dividends in excess of earnings during the ownership period are accounted for as a reduction in the share investment. Group contributions and dividends are recorded in the year they are adopted.

### **Business combinations**

Business combinations are recognised according to the acquisition method. Acquisition costs are the total of the fair value on the acquisition date of assets acquired, liabilities incurred or taken over as compensation for control of the acquired enterprise, as well as costs which can be directly attributed to business combinations.

The acquired enterprise's identifiable assets, liabilities and contingent liabilities which satisfy the conditions for accounting according to IFRS 3, are recognised at fair value on the acquisition date. Goodwill arising as a result of acquisitions is recognised as an asset measured as the excess of the total consideration transferred and the value of the minority interests in the acquired company beyond the net value of acquired identifiable assets and assumed liabilities. If the Group's share of the net fair value of the acquired enterprise's identifiable assets, liabilities and contingent liabilities exceeds the total consideration after re-assessment, the surplus amount is immediately recognised in the income statement.

### Segment reporting

Statnett has identified its reporting segment based on the risk and rate of return that affect the operations. Based on IFRS' definition, there is, according to the company's assessment, only one segment. The business is followed up as a single geographical segment. Subsidiaries do not qualify as separate business segments subject to reporting based on IFRS criteria. The parent company and the Group are reported as a single business segment.

#### Statement of cash flows

The cash flow statement has been prepared based on the indirect method. Cash includes bank deposits. Cash equivalents are shortterm liquid investments that can be converted immediately to a known amount of cash, and with a maximum term of three months. Restricted cash consists of employees' tax deductions restricted under Norwegian Law and security deposits related to power sale on the power exchange market.

#### Principles for revenue recognition

Operating revenues are measured at fair value and recognised when they are accrued on a net basis after government taxes. Operating revenues are reported on a gross basis and consists of delivered energy multiplied with a tariff-model set through directives from the Norwegian Water Resources and Energy Directorate (NVE). In cases where Statnett acts primarily as a settlement function in connection with common grids and power trading, this is reported net.

Interest income is recognised as it is accrued. Dividends from investments are recorded as income when the dividends are declared.

Customer project revenue is recognised on a current basis based on the measurement of the estimated fair value. This means that revenue is recognised as the work is performed based on the degree of completion. The degree of completion is determined on the basis of the accrued costs of the executed work and estimated total project expenditure. Revenue is included in other operating revenues. Invoiced and accrued project revenues are included in trade accounts receivable. Where projects are expected to make a loss, the entire expected loss is recognised as an expense.

## Taxes

Tax costs in the income statement encompass both the tax payable for the period and changes in the deferred tax liabilities/ assets. Taxes payable are calculated on the basis of the taxable income for the year. Net deferred tax assets/liabilities are calculated on the basis of temporary differences between the accounting and tax values, and the tax loss carried forward.

Tax-increasing or tax-reducing temporary differences that are reversed or may be reversed are offset. Deferred tax assets are recorded when it is probable that the company will have a sufficient taxable profit to benefit from the tax asset. Deferred tax liabilities/assets that can be recorded in the balance sheet are carried at their nominal value on a net basis.

Property taxes are recorded in the income statement when Statnett receives the invoice for the following period. Property taxes are other operating expenses.

### Classification of items in the balance sheet

An asset is classified as short-term (current asset) when it is related to the flow of goods, receivables paid within one year, and "assets that are not intended for permanent ownership or use in the operations". Other assets are fixed assets. The distinction between short-term and long-term loans is drawn one year before maturity. The first year's instalments on long-term loans are reclassified as current liabilities.

### Plants under construction

Plants under construction are recognised in the balance sheet at acquisition cost less any accumulated losses from impairments. Plants under construction are not depreciated.

Development projects start off with a feasibility and alternative study. The project is recognised in the balance sheet when the conclusion from the study is available, and the main development concept has been selected. At this point, a licence has not been granted and no final investment decision has been made. Statnett's experience is that once a main concept has been selected for development, it is highly likely that the project will be implemented.

Statnett is currently undertaking substantial investments. For the most part, this is done through projects that are recorded in the balance sheet as plants under construction until the assets are ready to be used. Projects under construction are evaluated per project if there are indications of impairment loss.

Ongoing assessments are made of whether licensing conditions or other causes necessitate a full or partial write-down of the project expenses incurred. Write-downs are reversed when there is no longer any basis for the write-down.

#### Interest during the construction period

Construction loan costs related to the company's own plants under construction are capitalised in the balance sheet. The interest is calculated based on the average borrowing interest rate and scope of the investment, as the funding is not identified specifically for individual projects. Interest is recorded in the income statement through depreciation based on the associated asset's anticipated economic life.

#### Property, plant and equipment

Property, plant and equipment are carried at cost less accumulated depreciation and write-downs. The depreciation reduces the carrying value of tangible fixed assets, excluding building lots, to the estimated residual value at the end of the expected useful life. Fixed assets are depreciated in a straight line from the time the fixed assets were ready to be used. This applies correspondingly to fixed assets acquired from other grid owners. Significant components of fixed asset are assessed separately for depreciation purposes. The significance is assessed based on the cost price of the components in relation to the cost price of the whole fixed asset.

Cost estimates for removal of tangible fixed assets are recognised as part of the acquisition cost at the time the Group is considered to have a legal or actual removal obligation. The estimate is assessed at the present value of the expenditure expected to incur at a future point in time. The annual interest cost that incurs as a result of the liability being one year closer to settlement, is recognised as a cost. The estimate may be amended later as a result of a change in the estimate of the size of the expense, change in the expected schedule and/or change in the discount rate. The amendments are recognised in the balance sheet as an increase or reduction of the book value of the fixed asset. If a potential reduction is higher than the book value of the fixed asset, the excess amount is recorded in the income statement. If there is an increase in the book value, the Group will assess whether this is a depreciation indicator for the portfolio of fixed assets.

Gains or losses on the divestment or scrapping of property, plant and equipment are calculated as the difference between the sales proceeds and the fixed assets' carrying value. Gains/losses on divestment are recorded in the income statement as other operating revenues/expenses. Losses on scrapping are recognised in the income statement as depreciation, amortisation and write-downs.

### Compensation

Lump sum payments in connection with the acquisition of land etc. are included in the cost price of the fixed asset. Ongoing payments are minor amounts and are recognised in the income statement in the year in which the payment is disbursed.

### Maintenance/upgrades

Maintenance expenses are recognised in the income statement when they are incurred. No provisions are made for the periodic maintenance of the grid (transformer stations or power lines/cables). Even though maintenance is periodic for the individual transformer station or power line, it is not considered to be periodic for the entire grid as the grid as a whole is regarded as a single cash-generating unit.

If the fixed asset is replaced, any residual financial value will be recorded in the income statement as a loss on scrapping. Expenses that significantly extend the life of the fixed asset and/or increase its capacity are capitalised.

### Intangible assets

Intangible assets are measured at acquisition cost on initial recognition. For intangible assets included in a business combination, acquisition cost is measured at fair value on the transaction date. In later periods, intangible assets are recognised at acquisition cost less accumulated amortisations and write-downs. Intangible assets with a fixed useful life are amortised over the asset's useful life which is assessed at least once a year. Intangible assets are amortised in a straight line as this best reflects the use of the asset.

### Goodwill

Goodwill is not amortised, but is tested for impairment annually. Write-downs are conducted if the carrying value is lower than the recoverable amount. The recoverable amount is the higher of the net sales value and the value in use. When assessing impairment, goodwill is allocated to fixed assets at the lowest identifiable level of cash-generating units. Write-downs of goodwill cannot be reversed in subsequent periods.

#### Write-down of property, plant and equipment and intangible assets other than goodwill

On each reporting date, the Group considers whether there are any indications of impairment in value for property, plant and equipment and intangible assets. If there are any indications of impairment in value, the Group will estimate the recoverable amount for the assets and evaluate potential write-down. Property, plant and equipment in the parent company is considered as one cash-generating unit and is assessed combined in each company since they have one combined revenue cap. For the other companies in the Group, each part of property, plant and equipment is assessed individually.

The recoverable amount is the higher of the net sales value and value in use. To assess the value in use, estimated future cash flows are discounted to present value using a pre-tax discount rate that reflects the current market assessments of the time value of money and risks specific to the asset.

If the recoverable amount for a fixed asset (or cash-generating unit) is estimated to be lower than the carrying value, the carrying value of the fixed asset (or cash-generating unit) will be reduced to the recoverable amount. If an impairment in value is subsequently reversed, the carrying value of the fixed asset (cash-generating unit) will be increased to the revised estimate of the recoverable amount, but limited to the value that would be the carrying value if the fixed asset (or cash-generating unit) had not been written down in a prior year.

### Leasing

#### The Group as lessor

#### **Financial lease agreements**

Financial lease agreements are lease agreements where the lessee takes over the majority of the risk and return associated with the ownership of the asset. The Group presents leased assets as receivables equal to the net investment in the lease agreements. The Group's financial income is determined so that a constant rate of return is achieved on the outstanding receivables over the term of the agreement period. Direct expenses incurred in connection with the establishment of the lease agreement are included in the receivable.

#### **Operating leases**

Operating leases where the majority of the risk and return associated with ownership of the asset is not transferred to the Group, are classified as operating leases. The Group presents leased assets as fixed assets in the balance sheet. The lease revenue is recognised in a straight line over the term of the lease period. Direct expenses incurred to establish the operating lease agreement are added to the leased asset's carrying value and recognised as expenses during the term of the lease on the same basis as the lease revenue.

#### The Group as lessee

#### **Financial lease agreements**

Financial lease agreements are lease agreements where the Group takes over the majority of the risk and return associated with ownership of the asset. At the beginning of the lease term, financial lease agreements are capitalised at an amount corresponding to the lower of fair value and the present value of the minimum rent, less accumulated depreciation and write-downs. When calculating the lease agreement's present value, the implicit interest charge in the lease agreement is used if this can be estimated. Otherwise, the company's marginal borrowing rate is used. Direct expenses related to establishing the lease agreement are included in the asset's cost price.

The same depreciation period is used as for the company's other depreciable assets. If it is not reasonably certain that the company will acquire ownership at the end of the lease period, the asset will be depreciated over the shorter of the lease agreement's duration and the asset's useful life.

#### **Operating leases**

Operating leases where the majority of the risk and return associated with ownership of the asset is not transferred to the Group, are classified as operating leases. The rent payments are classified as operating expenses and are recorded in a straight line in the income statement over the duration of the agreement.

#### **Research and development**

Research expenses are recognised on a current basis. Research is an internal process that does not give rise to independent intangible assets that generate future economic benefits.

Expenses related to development activities are capitalised in the balance sheet if the product or process is technically and commercially feasible and the Group has adequate resources to complete the development. Expenses capitalised in the balance sheet include material expenses, direct wage costs and a percentage of directly attributable overhead expenses. Capitalised development expenses are recorded at acquisition cost, less any accumulated depreciation and write-downs.

Capitalised development expenses are depreciated in a straight line over the estimated useful life of the asset.

#### Accounts receivable

Trade accounts are recorded in the accounts at nominal value less any losses from impairment in value.

#### Contingent assets and liabilities

Contingent liabilities are not recorded in the annual financial statements. Significant contingent liabilities are disclosed unless the probability of the liability is low.

Contingent assets will not be recorded in the annual financial statements, but will be disclosed if there is a certain degree of probability that it will benefit the Group.

Higher/lower revenues are contingent liabilities/assets in accordance with IFRS and are not recorded in the balance sheet.

### Dividend (from the parent company)

Dividends paid are recorded in the Group's financial statements during the period in which they are approved by the General Meeting. If the approval and payment occur in different periods, the amount will be allocated to current liabilities until payment is made.

#### Pensions and pension liabilities

The Group's liability relating to pension schemes, defined as defined-benefit pension schemes, is recognised at the present value of the future retirement benefits accrued at the end of the reporting period. Pension assets are evaluated at fair value. The accumulated effect of estimate changes, changes in financial and actuarial assumptions and actuarial gains and losses, are recognised under other comprehensive income in the statement of comprehensive income.

Pension costs for the period are presented as salaries and personnel costs. The Group has chosen to present the net interest expenses element as salaries and personnel costs, as this provides the best information about the Group's pension costs.

Contributions to defined contribution plans are recognised as costs as they occur. Multi-employer plans are defined-benefit plan where the information is insufficient in order to account for the plan as a defined benefit plan. Such plans are recognised similar to a defined contribution plan.

### Loans

Interest-bearing loans are recorded in the income statement as the proceeds that are received, net of any transaction costs. Loans are subsequently accounted for at amortised cost using the effective interest rate method, where the difference between net proceeds and redemption value is recognised in the income statement over the term of the loan.

### Financial instruments

The initial measurement of financial instruments is at fair value on the settlement date, normally at the transaction price.

- Financial assets and liabilities held for the purpose of profiting from short-term price fluctuations (held for trading purposes) or accounted for according to the fair value option are classified at fair value through profit or loss.
- All other financial assets with the exception of loans and receivables issued by the company are classified as available for sale.
- All other financial liabilities are classified as other liabilities and accounted for at amortised cost.

Gains or losses attributed to changes in fair value of financial instruments classified as available for sale are recognised as other comprehensive income until the disposal of the investment. The cumulative gain or loss on the financial instrument previously recognised in other comprehensive income will be reversed, and the gain or loss will be recognised in the income statement.

Changes in the fair value of financial instruments classified at fair value through profit or loss (held for trading purposes or fair value option) are recognised in the income statement and presented as financial income/expenses.

Financial instruments are included in the balance sheet when the Group becomes a party to the instrument's contractual terms. Financial instruments are eliminated from the balance sheet when the contractual rights or obligations have been fulfilled, cancelled, or transferred, or they have expired. Financial instruments are classified as long-term when they are expected to be realised more than 12 months after the balance sheet date. Other financial instruments are classified as short-term.

### Set-off

Financial assets are offset against financial liabilities if there is a legally enforceable right to set off the recognised amounts and the enterprise intends either to settle on a net basis, or to realise the asset and settle the liability simultaneously. Statnett currently has no financial instruments that are set off and presented net in the balance sheet.

### Derivatives

Derivatives are recognised initially at fair value on the date when the contract is entered into and then measured at fair value on a current basis. Derivatives are accounted for as assets or liabilities when the company has no right or intention to settle the contracts net. Gains and losses resulting from changes in the fair value of derivatives that do not meet the conditions for hedge accounting are recorded in the income statement.

Embedded currency derivatives in contracts are separated and measured separately.

Statnett has entered into CSA agreements (Credit Support Annex) with major Counterparts. This involves collateral of existing derivatives at weekly settlement of unrealized surplus / deficit. Unrealized gains means that Statnett receives settlement that increases Statnett's bank-deposits and short-term debt. Unrealized losses means that Statnett pays settlement to counterparties that decreases bank-deposits and short-term receivables.

### Hedging

When entering into a hedging contract, the Group will formally identify and document the hedging contract that the Group will use hedge accounting for, as well as the risk that is hedged and the strategy for the hedge. Documentation includes identification of the hedging instrument, or the item or transaction that is hedged, the type of risk that is hedged, and how the Group will assess the effectiveness of the hedging instrument to counteract the exposure to changes in the hedged item's fair value or cash flows that can be attributed to the hedged risk. Such hedges are expected to be highly effective in counteracting changes in fair value or cash flows to the identified object, i.e. the hedging efficiency must be expected to be within the 80-125 per cent range. Moreover, it must be possible to reliably measure the

efficiency of the hedges, and to assess them on a current basis to determine whether they actually have been highly effective throughout the entire accounting period they are intended to cover.

Hedges that fulfil the strict conditions for hedge accounting are accounted for as follows:

#### Fair value hedging

Changes in the fair value of the derivative classified as a hedging instrument are recorded in the income statement continuously. Changes in the fair value of the hedging instrument are recorded correspondingly.

For fair value hedging of items that are accounted for at amortised cost, the change in value is amortised in the income statement over the remaining period until maturity.

The Group discontinues fair value hedging if (1) the hedging instrument expires, is sold, terminated or exercised, (2) the hedging no longer fulfils the conditions for hedge accounting or (3) the Group cancels the hedging due to other reasons.

The Group uses fair value hedging primarily to hedge the interest rate risk for fixed interest rate loans and the currency risk for interestbearing liabilities. Fair value hedging is also performed for specific acquisitions in foreign currencies for investment projects. Unrealised hedging gains/losses (currency futures) reduce/increase the cost price of the investments upon realisation.

#### Cash flow hedging

The criterion for cash flow hedging is that the pending transaction must be likely, and that continuous evaluation shows that the hedging has been efficient. The effective part of changes in the fair value of the hedging instrument is recognised as other comprehensive income, while the ineffective part is recognised as other operating costs.

Amounts that are initially recognised as other comprehensive income are reclassified and recognised in the income statement as financial income or cost when the hedged transaction is conducted.

If the expected future transaction is no longer expected to take place, amounts recognised earlier as other comprehensive income will be recognised in the income statement as financial income or cost. If the hedging instrument expires, or is sold, terminated or used, or Statnett chooses to discontinue the hedging relationship, even if the hedged transaction is expected to occur, accumulated gains and losses remain as other comprehensive income and are recognised in the income statement when the transaction is executed.

The Group uses cash flow hedging primarily to hedge the interest rate risk in respect of loans with floating interest rates.

#### **Foreign currency**

The consolidated financial statements are presented in Norwegian Kroner (NOK), which is also the parent company's functional currency. All Group companies use NOK as their functional currency.

As all the companies in the Group have the same functional currency, no translation differences arise upon consolidation of the Group companies.

Transactions in foreign currency are recognised at the current exchange rates prevailing at the date of the transaction. Monetary items in currencies are translated into NOK at the exchange rate in effect on the balance sheet date. Non-monetary items measured at acquisition cost are translated into NOK at the exchange rate in effect on the transaction date. Non-monetary items that are measured at fair value expressed in foreign currency are translated at the exchange rate in effect on the balance sheet date. Changes in exchange rates are recorded on a current basis in the income statement during the reporting period and presented as financial items.

Long-term interest-bearing debt in foreign currency is related to interest rate and currency swaps and treated as borrowings in NOK.

#### **Provisions**

Provisions for liabilities are recognised in the income statement when the Group has an existing liability (legal or assumed) as a result of an event that has taken place and it can be demonstrated as probable (more likely than not) that a financial settlement will be made as a result of the liability, and the amount can be reliably measured. Provisions are reviewed on each balance sheet date and the level reflects the best estimate of the liability. If there is a substantial time effect, the liability will be accounted for at the present value of future liabilities.

### **Government grants**

Government grants are not recorded in the accounts until it is reasonably certain that the Group will meet the conditions stipulated for receipt of the grants and that the grants will be received. Grants are recorded as a deduction in the expenses that they are meant to cover.

### Events subsequent to the balance sheet date

New information on the company's positions on the balance sheet date is incorporated into the annual financial statements. Events after the balance sheet date that do not affect the company's position on the balance sheet date, but will affect the company's position in the future, are disclosed if they are material.

# Note 2 New and amended accounting standards

#### New relevant accounting standards

The following new and amended standards and interpretations have been implemented for the first time in 2017:

#### IAS 7 Disclosure Initiative – Amendments to IAS 7

The amendments to IAS 7 Statement of Cash Flows are part of the IASB's Disclosure Initiative and help users of financial statements better understand changes in an entity's debt. The amendments require entities to provide disclosures about changes in their liabilities arising from financing activities, including both changes arising from cash flows and non-cash changes (such as foreign exchange gains or losses).

### Changes to accounting standards and interpretations to be adopted in the future

The standards and interpretations that were adopted before submission of the consolidated accounts, but where the effective date is in the future, are stated below. The Group intends to implement the relevant amendments at the effective date.

### **IFRS 9 Financial Instruments**

The standard results in amendments to classification and measurement, hedge accounting and impairment. IFRS 9 will replace IAS 39 Financial Instrument: Recognition and Measurement. The standard shall be implemented retrospectively, with the exception of hedge accounting, but it is not a requirement to prepare comparative figures. The changes are effective for the year 2018 and thereafter.

The rules for hedge accounting shall mainly be implemented prospectively, with certain few exceptions. The Group has no plans regarding early implementation of the standard.

The Group has evaluated the accounting effects of IFRS 9. The standard will not result in changes to classification and measurement of the Group's financial assets. Amendments to impairment rules will not have a significant effect as, historically speaking, impairments of receivables has been limited. A more principal based approach to hedge accounting will require a stronger relation between the risk management strategy and the actual risk management process. This may open for increased hedge relations without the need for increase in type of hedge instruments compared to the current hedging instruments used. Simplified requirements to hedge effectiveness testing, whereas retrospective, quantitative testing is replaced by a more qualitative prospective approach to testing of hedge effectiveness, can result in reduced events of breaches in hedge relations due to hedge ineffectiveness. The simplification will otherwise not result in significant changes as ineffectiveness still has to be measures and accounted for. Due to the significant increase in footnote reporting requirements the Group has identified needs for changes in internal reporting procedures to ensure compliance with the new requirements. During the year, The Group has clarified its risk management strategy to improve the relation to the actual risk management process. The Group is also in the process of changing its bookkeeping procedures for hedge accounting in order to fulfil the increased footnote requirements in 2018. The changed procedures will be implemented in 2018.

### IFRS 15 Revenue from Contracts with Customers

The standard replaces all existing standards and interpretations for revenue recognition. The core principle of IFRS 15 is that an entity will recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. With some few exceptions, the standard is applicable for all remunerative contracts and includes a model for recognition and measurement of sale of individual non-financial assets (e.g. sale of property, plant and equipment). IFRS 15 shall be implemented using either the fully retrospective or modified method. The standard is effective from 1 January 2018.

The Group has applied the standard from 1 January 2018 using the modified method.

The Group has identified that sale of software licenses will result in an equity increase of approximately NOK 35 million at the date of implementation, 1 January 2018, due to a change in timing of revenue recognition. The Group has not identified further consequences for recognition and measurement of revenue from customer contracts.

A substantial part of Statnett's revenues are regulated by the Norwegian Water Resources and Energy Directorate (NVE) that sets an annual revenue cap. Consequently, differences will arise between this year's actual operating revenues and the permitted revenues according to the revenue cap (higher/lower revenue).

The obligation to reduce future tariffs and the opportunity to collect increased tariffs do not qualify for balance sheet recognition according to IFRS. IFRS 15 does not change this principle, and consequently, the implementation of IFRS 15 will not affect the Group's principle for recognition of operating revenues from regulated activities.

IASB is currently working on a new standard for «rate regulated assets» that will possibly entail changes to principles for revenue recognition through recognition of higher/lower revenue. The standard has not yet been issued and will not take effect when the Group is to submit the annual accounts for 2017.

#### IFRS 16 Leasing

IASB adopted in 2016 a new standard for leasing. IFRS 16 replaces the existing IFRS standard for leases, IAS 17 Leases. The new standard require that the lessee must recognize all significant lease with a lease term over one year in the balance sheet. Lessee must recognize the lease liability and the associated "right-of-use asset" for the use of the underlying asset over the lease term. Under IFRS 16, there will no longer be a distinction between financial and operating leases for the lessee. Lessor accounting under IFRS 16 is substantially unchanged from today's accounting under IAS 17. The standard is effective from 1 January 2019 and Statnett will adopt the standard from the same date.

Statnett owns most of their operational equipment, but there exist some lease agreements to land, offices and fibre cables. These agreements are classified as operating leases, according to the existing IFRS standard for leases (IAS 17). Rent of operational equipment is accounted for according to the use of the assets. Leases directly related to a project, is included in the project costs, while other leases are included in other operating costs.

When applying the standard Statnett will use a modified retrospective approach, and will not restate comparative amounts for the year prior to first adoption. The implementation effect while be recorded at the opening balance as per 1 January of 2019, by booking an equal value of a right-of-use asset and lease liability. The implementation effect from recognizing future lease liability and the associated "right-of-use asset, is considered to increase the Groups total balance sheet with less than 1 percent.

#### **IFRIC 22 Foreign Currency Transactions and Advance Consideration**

The interpretation clarifies that in determining the spot exchange rate to use on initial recognition of the related asset, expense or income on the derecognition of a nonmonetary asset or non-monetary liability relating to advance consideration, the date of the transaction is the date on which an entity initially recognises the non-monetary asset or nonmonetary liability arising from the advance consideration. If there are multiple payments or receipts in advance, then the entity must determine a date of the transactions for each payment or receipt of advance consideration.

The Group's practice is already in line with the interpretation.

Group

# **Note 3** Accounting estimates and assumptions

The preparation of the financial statements in compliance with IFRS requires that the management prepares assessments and estimates and assumptions that affect the application of accounting principles. This affects recognised amounts for assets and liabilities on the balance sheet date, reporting of contingent assets and liabilities, as well as the reported revenues and costs for the period.

Accounting estimates are used to determine some amounts that have an impact on the group's financial statements. This requires that the management prepares assumptions relating to values or uncertain conditions at the time of preparation. Key accounting estimates are estimates that are important to the Group's financial performance and results, requiring the management's subjective and complex assessment, often related to factors encumbered by uncertainty. Statnett assesses such estimates continuously on the basis of previous results and experiences, consultations with experts, trends, prognoses and other methods which the management deems appropriate in the individual case.

Significant items relating to Statnett's use of estimates:

			Group
Item	Note	Estimate/assumptions	Carrying value
Other intangible assets	8	Estimate of recoverable amount and remaining useful life	361
Property, plant and equipment	8	Estimate of recoverable amount and remaining useful life	35,653
Pension liabilities	7	Financial and demographic assumptions	354
Asset retirement obligations	21	Estimate of asset retirement costs, retirement dates and price increases in the period leading up to retirement	547

# Note 4 Operating revenue

#### Operating revenue regulated operations

Statnett's revenues mainly derive from operations where the revenues are regulated by the Norwegian Water Resources and Energy Directorate (NVE). Statnett's actual revenue from the regulated operations derive from tariff's in the transmission and distribution grid and congestion revenue.

Due to uncertainty relating to each year's actual revenues and final permitted revenue, which the NVE decides after year-end, a difference arises annually between Statnett's actual operating revenue from regulated operations and Statnett's permitted revenue. This difference is called higher or lower revenue and is reported as part of underlying profit and loss, but not the reported IFRS results. Higher revenue occurs when Statnett's has higher actual operating revenue than the revenue cap set by the NVE for a particular year. Lower revenue means that Statnett's actual operating revenue is lower than the permitted revenue.

Pursuant to NVE regulations, any higher revenue, including interest, must be returned to the customers in the form of lower future tariffs, whereas lower revenue, including interest can be recouped from the customers in the form of higher future tariffs. The obligation to reduce future tariffs and the opportunity to collected increased tariffs do not qualify for balance sheet recognition according to IFRS, consequently representing a contingent obligation (in the event of accumulated higher revenue) or a contingent receivable (in the event of accumulated lower revenue). Consequently, an annual change in these items will not be included in the reported IFRS results.

#### Permitted revenue - monopoly-regulated operations

Statnett owns transmission facilities and is a transmission system operator. These are monopoly-regulated operations. This means that NVE sets an annual limit – a revenue cap – for the grid owner's maximum revenues. The basis for Statnett's permitted revenue is the revenue cap. The revenue cap is based on expenditures, including capital expenditures, for a retrospective period of two years. System operation costs are also included. Statnett's revenue cap is regulated to ensure that the enterprise has incentives for efficient operation. In addition to the revenue cap, Statnett's permitted revenue consists of the following: Actual property tax, transit costs and a supplement for investments. The supplement for investments shall ensure that the year's capital expenditure are reflected in the permitted revenue for the year the investment is put into operation. Furthermore, Statnett's permitted revenue is adjusted for interruptions through KILE (quality-adjusted revenue cap for energy not supplied).

#### Tariff revenue

Statnett is the operator of the transmission grid and two common regional grids. As the operator, Statnett is responsible for setting the annual tariffs for each common grid.

As the operator of the transmission grid and two common regional grids, Statnett is responsible for invoicing the users for the services they receive. The invoicing takes place on the basis of a tariff model prepared in accordance with guidelines provided by NVE. The price system consists of fixed elements and variable elements; energy elements. Fixed elements are invoiced evenly throughout the year, while the energy element is invoiced concurrently with the customers' measured input or outtake of power from the grid.

5,001

1,700

7,295

116

594

5,120

1,686

7,411

605

# Note 4 Operating revenue

#### Operating revenue regulated operations

### Specification of income by distribution grid (D Grid) and transmission grid (T Grid)

(Amounts in NOK million)

Total permitted revenue

Parent company

Operating revenue	D Grid	T Grid	Total 2017	D Grid	T Grid	Total 2016
Tariff revenue fixed element generation	50	1,612	1,662	46	1,481	1,527
Tariff revenue fixed element consumption	133	3,769	3,901	139	3,082	3,221
Other rental income	-	125	125	-	114	114
Tariff revenue energy element	3	652	655	-10	676	666
Congestion revenue	-	1,030	1,030	-	1,170	1,170
Income from other owners in the regional and main grids	-69	-169	-238	-51	-235	-286
Total operating revenue regulated activities	117	7,019	7,135	124	6,288	6,412

151

7,630

7,781

Permitted revenue				
Revenue cap without grid losses	127	5,534	5,661	119
Revenue cap, grid losses	14	682	696	11
Supplement to revenue cap	10	1,414	1,424	-14

In 2017, Statnett had a lower revenue of NOK 646 million (NOK 999 millon in 2016) not accounted for as part of profit and loss. This represents the difference between Operating revenues and Permitted revenue, and has been reported as part of Underlying profit and loss.

#### This year's changed balance for higher/lower revenue (-/+)

	-					
	D Grid	T Grid	Total 2017	D Grid	T Grid	Total 2016
This year's higher/lower revenue (-/+), not recorded to profit and loss	35	611	646	-8	1,007	999
This year's provision for interest higher/lower revenue (-/+)	-	-	-	-	-12	-12
Higher/lower revenue decision (-/+)	-	-	-	-	16	16
This year's changed balance for higher/lower revenue (-/+)	35	611	646	-8	1,011	1,003
Balance higher/lower revenue (-/+), incl. interest as at 1 Jan.	13	-356	-343	21	-1,367	-1,346
Changed balance for higher/lower revenue (-/+), incl. Interest	35	611	646	-8	1,011	1,003
Balance higher/lower revenue (-/+), incl. interest as at 31 Dec.	48	255	303	13	-356	-343

# Note 4 Operating revenue

G	r	0	u	p

Operating revenue	D Grid	T Grid	Total 2017	D Grid	T Grid	Total 2016
Tariff revenue fixed element generation	50	1,612	1,662	46	1,481	1,527
Tariff revenue fixed element consumption	133	3,769	3,901	139	3,082	3,221
Other rental income	-	125	125	-	114	114
Tariff revenue energy element	3	652	655	-10	676	666
Congestion revenue	-	1,030	1,030	-	1,170	1,170
Income from other owners in the regional and main grids	-69	-202	-271	-51	-201	-252
Total operating revenue regulated activities	117	6,986	7,102	124	6,322	6,446
Permitted revenue						
Revenue cap without grid losses	127	5,502	5,629	119	5,033	5,152
Revenue cap, grid losses	14	682	696	11	594	605
Supplement to revenue cap	10	1,414	1,424	-14	1,702	1,688
Total permitted revenue	151	7,598	7,749	116	7,329	7,445

In 2017, Statnett had a lower revenue of NOK 646 million (NOK 999 millon in 2016) not accounted for as part of profit and loss. This represents the difference between Operating revenues and Permitted revenue, and has been reported as part of Underlying profit and loss.

### This year's changed balance for higher/lower revenue (-/+)

	D Grid	T Grid	Total 2017	D Grid	T Grid	Total 2016
This year's higher/lower revenue (-/+), not incl in the income statement	35	611	646	-8	1,007	999
This year's provision for interest higher/lower revenue (-/+)	-	-	-	-	-12	-12
Higher/lower revenue decision (-/+)	-	-	-	-	16	16
This year's changed balance for higher/lower revenue (-/+)	35	611	646	-8	1,011	1,003
Balance higher/lower revenue (-/+), incl. interest as at 1 Jan.	13	-356	-343	21	-1,367	-1,346
Changed balance for higher/lower revenue (-/+), incl. Interest	35	611	646	-8	1,011	1,003
Balance higher/lower revenue (-/+), incl. interest as at 31 Dec.	48	255	303	13	-356	-343

# Note 4 Operating revenue

#### Operating profit within and outside grid activities

Parent company			Group	
2016	2017	(Amounts in NOK million)	2017	2016
1,065	1,167	Operating profit within grid activities	1,126	1,066
88	57	Operating profit outside grid activities	186	86
1,153	1,224	Total operating profit	1,312	1,152

#### Basis for return on invested grid capital

The regulatory asset base is defined as the average of the incoming and outgoing balance for invested grid capital, plus one per cent of net working capital. The invested grid capital is given as the initial historical acquisition cost. The share of common fixed assets is included.

Parent company				Group
2016	2017	(Amounts in NOK million)	2017	2016
31,763	34,678		34,678	31,858

#### Return on invested grid capital

Return is defined as the operating profit/loss compared to the regulatory asset base. The reported operating profit/loss is given as the annual permitted revenue from own grid less costs of own grid. The difference is explained by current years change in lower/higher revenue not accounted for under IFRS.

Parent company			Group	
2016	2017	(Return in percentage)	2017	2016
6%	5%		5%	6%

#### Other operating revenue

Other operating revenues are revenues related to other activities than regulated operations, and consists mainly of fees from external consultancy assignements, income from construction on behalf distribution grid owners and rental income.

#### Balance settlement (Power purchases and -sales)

Statnett SF holds a separate licence to settle the regulated power settlement system in Norway. This responsibility gives Statnett a national responsibility to coordinate measurement and settlement of all power sales as well as correct settlement of input and outtake of power to ensure financial balance in the power-market. On 1 May 2017 the Nordic Balance Settlement was put in operation and eSett Oy took over the operational responsibility for imbalance settlement on behalf of Statnett SF. The tasks transferred includes calculation of imbalances, invoicing, as well as ensuring that the market players provide sufficient collateral on an ongoing basis. The settlement responsibility is financed through fees. The fees shall also cover a fixed portion of the system services costs.

In 2017, income for the balance settlement responsibility amounted to NOK 76 million, of which NOK 38 million were fee revenues.

# Note 5 System services and transmission losses

#### System services

Pa	rent company			Group
201	6 2017	(Amounts in NOK million)	2017	2016
	6 10	Net regulating and peak power	10	16
8	5 87	Primary reserves	87	85
	7 13	Secondary reserves	13	7
7	66 66	Tertiary reserves	66	76
1(	9 110	Transit costs	110	109
14	6 110	Special adjustments	110	146
4	0 39	Other system services	39	40
47	9 435	Total system services	435	479

System services are costs relating to the exercise of Statnett's system responsibility as defined in the Regulations relating to the system responsibility in the power system (FoS).

The frequency in the power grid must be 50Hz. Statnett, as Transmission System Operator (TSO), is responsible for ensuring that this frequency remains stable. The requirement to maintain a reserve capacity for regulating purposes imposes limitations on the producers as they are unable to generate and sell the full generator capacity. The reserve capacity is distinguished between primary-, secondary-and tertiary reserves.

#### **Primary reserves**

The primary regulation is automatic and is activated immediately if any changes occur in the power grid frequency. This takes place by using a pre-agreed reserve capacity. The requirement to maintain a reserve capacity for regulating purposes imposes limitations on the producers as they are unable to generate and sell the full generator capacity. Primary reserves are costs Statnett incurs by buying reserve capacity from the producers. The extent of primary reserves is determined by agreements at Nordic level and the reserves are acquired through market solutions.

#### Secondary reserves

Automatic secondary reserves are activated to release the primary reserves so that they in turn can quickly handle any new faults or imbalances. Automatic secondary reserves function by the TSO sending a signal to a market player/power plant, which will then change the plant's generation. Secondary reserves are also referred to as Automatic frequency regulating reserve (aFRR) and in the Nordic countries they are mainly used to handle frequency deviations. The extent of secondary reserves is determined by agreements at Nordic level and the reserves are acquired through market solutions.

#### **Tertiary reserves**

In Norway there is an options market for regulating power. This is used to ensure that we have sufficient regulating resources available in the Norwegian section of the regulating power market, also during periods of demand for increased output, such as in the winter months. In the winter, the TSO sets up a market where they purchase a guarantee ensuring that market members submit bids for the regulating power lists for the subsequent week. The guarantees can apply for both consumption and production.

#### **Transit costs**

Transit costs are compensation for the use of grids abroad. The power system in Europe is connected through transmission lines/cables crossing international borders.

#### Special adjustments

In some cases there are restrictions in the transmission capacity (congestion revenues) which may entail that the bids in the regulating power market cannot be utilised in the "correct" price order. Activated regulations that are not in price order are categorised as special adjustments and are compensated for by the associated price of the bid without this affecting the stipulation of the regulating power price. Thus, Statnett will incur a cost equal to the difference between the price of activated bids used for special adjustments and the current hourly price mainly aimed at the regulating power market multiplied by the especially adjusted volume.

# Note 5 System services and transmission losses

#### **Transmission losses**

Statnett buys transmission losses (volume) from Nord Pool AS at spot price (market price) for the hour the transmission loss applies. The main grid transmission loss result is distributed between the grid owners in accordance with their proportionate shareholding in the main grid. 2 percent of the value of the facilities are owned by other companies than Statnett SF.

Parent company				Group
2016	2017		2017	2016
2,611	2,362	Volume (GWh)	2,362	2,611
246	272	Price (NOK/MWh)	272	246
		(Amounts in NOK million)		
644	641	Transmission losses	641	644
-2	1	Transmission losses other grid owners	1	-2
642	642	Total transmission losses	642	642

# Note 6 Salaries and personnel costs

Parent c	Parent company			
2016	2017	(Amounts in NOK million)	2017	2016
1,069	1,162	Salaries	1,190	1,099
183	205	Employer's national insurance contributions (NICs)	209	188
186	197	Pension costs (Note 7)	201	190
121	128	Other benefits	130	75
1,559	1,692	Total salaries and personnel costs	1,730	1,552
-638	-730	Of which own investment projects	-779	-665
921	962	Net salaries and personnel costs	951	887
1,283	1,367	Number of full-time equivalents	1,404	1,323

#### Loan to employees

Employees had loans in the company totalling NOK one million as at 31 December 2017. The loans are repaid by salary deductions over a period of up to two years. The loans are interest-free for the employee. The interest gain of loans exceeding 3/5 of the basic amount is taxed in relation to the current standard interest rate set by the authorities.

The parent company and subsidiaries have pension schemes entitling the employees to future pension benefits in the form of defined benefit and defined contribution plans. The Group's pension plans meet the requirements in the Norwegian Mandatory Occupational Pension Act.

In 2015 Statnett made a decision to change the Group's pension plan from a defined benefit plan to a defined contribution plan. The transitioning to the defined contribution plan took place from 1 January 2016. Paid-up policies was then issued for earned pension contribution.

The defined contribution plan have a contribution level based on the maximum level of contribution in accordance with the "Defined pension contribution Act (Lov om innskuddspensjon)". Employees that are 52 years or older when the transitioning took place, remains in the defined benefit plan. For employees between 37 and 51 years of age a compensation plan was established in addition to the defined contribution plan. This arrangement is an unfunded defined benefit plan with yearly increase in compensation until 67 years of age. Payment under the compensation plan will take place at 67 years of age or earlier if the employee resigns. The defined contribution plan is managed by an insurance company (Storebrand).

The defined pension benefits are based on the number of service years and final wage at retirement age. The full retirement is 70 per cent of pensionable income less calculated disbursements under the Norwegian National Insurance Scheme. The pensionable income is limited upward to 12 times the basic amount under the National Insurance Scheme. The full contribution period is 30 years and the normal retirement age is 67.

Accrued pension rights are mainly secured through pension schemes in Statnett SF's Pensjonskasse. In addition, the parent company has early retirement pension obligations that are funded through operations.

The Group management has supplemental pension agreements. For more information on pension arrangements for each member of Group management, see Note 20 Remuneration/benefits to the Group management.

The Group is a member of the private contractual early retirement scheme (AFP plan) The AFP plan entails that employees will receive a lifelong supplement to the national insurance retirement pension. The pension can be drawn from age 62, also if an employee decides to stay employed. The AFP plan is a defined-benefit multi-employer plan, organized through a general office and financed through premiums stipulated as a percentage of the salaries.

The premium level has increased yearly since the plan was established and thus the premiums are expected to increase in the years to come.

The net pension liabilities in the balance sheet are determined after adjustment for deferred recognition in other comprehensive income of the effect of changes in estimates and pension plans, as well as discrepancies between the actual and expected interest income on pension assets. The net pension liabilities are reported as provisions for liabilities. When a plan has funds exceeding pension liabilities, net pension assets are reported as fixed assets.

Employees who leave the group before retirement age receive a paid-up policy. The paid-up policies have been managed by the life insurance company Storebrand Livsforsikring AS, that issued the paid-up policies until 31 December 2013. For the employees that left the company, after 1 January 2014, Statnett SF' Pensjonkasse manage the paid-up policies. From the date the paid-up policy is issued, Statnett is exempt from any obligation to employees to which the paid-up policies apply. Assets and liabilities are measured at the date of issue of the paid-up policies, and are separated from pension assets and liabilities.

An external actuary calculates the pension liabilities. When calculating the pension liabilities, the National Insurance contributions that the company is required to pay on the payment of direct pensions or the payment of premiums for fund-based schemes are taken into account. The National Insurance contribution is a component of the company's benefit and is recorded as part of the pension liabilities.

#### Pension costs

Parent	Parent company			Group
2016	2016 2017 (Amounts in NOK million)		2017	2016
96	89	Defined benefit plan	91	97
5	2	Interest cost -(income)	2	5
74	89	Defined contribution plan	91	76
12	17	Defined multi-employer plan	17	13
187	197	Pension costs	201	191
24	25	Employer's contributions	26	24
211	211 222 Total pension costs, incl. employer's contribution		226	215
-94	293	Changes in estimate variances in comprehensive income	293	-94

## Net estimated pension liabilities

Parer	Parent company			Group
31.12.2016	31.12.2017	(Amounts in NOK million)	31.12.2017	31.12.2016
1,918	2,213	Estimated pension liabilities	2,229	1,934
-1,798	-1,798 -1,861 Pension assets		-1,875	-1,812
120	352	Net pension liabilities	354	122
-85	-	Net pension assets - funded plan	-	-85
-	112	Net pension liabilities - funded plan	112	-
205	240	Unfunded pension	242	207
120	352	Net pension liabilities	354	122

## Funded and unfunded pension liabilities

Parer	Parent company			Group
31.12.2016	31.12.2017	(Amounts in NOK million)	31.12.2017	31.12.2016
		Change in gross pension liability		
1,910	1,918	Gross pension liability at 1 Jan.	1,934	1,925
106	106 101 Present value of the year's pension contributions		103	108
-	-56	Effect of plan changes	-56	-
52	50	Interest costs of pension liability	51	52
-92	263	Actuarial gains and losses	260	-92
-18	-20	Employer's contribution on premium paid	-20	-18
-40	-43	Disbursed pension/paid-up policies	-43	-41
1,918	2,213	Gross pension liabilities as at 31 Dec.	2,229	1,934

### Funded and unfunded pension liabilities

	Parent company				Group
	31.12.2016 31.12.201		(Amounts in NOK million)	31.12.2017	31.12.2016
			Change in gross pension assets		
	1,663	1,798	Fair value of pension assets at 1 Jan.	1,812	1,675
	47 47		Interest income on pension assets	48	47
	-	-57	Effect of plan changes	-57	-
	2	-31	Actuarial gains and losses	-33	3
	144	160	Premium paid	161	146
-58 -58 Pension/paid-up policies disbursed		Pension/paid-up policies disbursed	-59	-59	
	1,798 1,859		Fair value of pension assets as at 31 Dec.	1,872	1,812
	120	352	Net pension liabilities as at 31 Dec.	354	122

## Changes in estimate variances for the year

Parent company				Group
2016	2017	(Amounts in NOK million)	2017	2016
48 104 Change in discount rate		104	48	
-3	31	Interest income on pension assets	31	-3
-20	23	Salaries growth	23	-20
-59	79	Pension adjustments	79	-59
-60	56	Effect of experience adjustment	56	-60
-94	293	Total changes in estimate variances for the year	293	-94

Financial/actuarial assumptions, parent company and Group	2017	2016
Discount rate corporate covered bonds (OMF)	2.30%	2.60%
Interest income on pension assets	2.30%	2.60%
Expected wage adjustments	2.25%	2.00%
Expected pension adjustments	1.50%	1.25%
Expected adjustment of basic amount (G) under NIS	2.25%	2.00%
Mortality table	K2013FT	K2013FT

#### Sensitivity analysis

The figures below give an estimate of the potential effect of a change in certain assumptions for defined-benefit pension schemes. The following estimates and estimated pension costs for 2017 are based on the facts and circumstances at 31 December 2017. Actual results may differ significantly from these estimates.

Sensitivities decrease (increase) benefit obligation as of year-end:

#### (Amounts in NOK million, except percent)

Parent com	Parent company			
190	-8.6 %	Discount rate increase 0.5 percent	190 -8.6%	
-48	2.2 %	Expected salary increase 0.5 percent	-48 2.2%	
-169	7.7 %	Expected pension increase 0.5 percent	-169 7.7%	

Percentual breakdown of pension assets into investment categories, parent company and Group as at 31 December	2017	2016
Property	9%	9%
Held-to-maturity bonds	8%	12%
Norwegian bonds	23%	20%
High-interest bonds	2%	4%
Foreign bonds	18%	11%
Bank deposits	2%	1%
Norwegian money market	5%	9%
Emerging markets	7%	7%
Foreign shares	20%	20%
Norwegian shares	6%	7%
Total	100%	100%

#### Members of the defined-benefit plan

Parent	company			Group			
2016	2017		2017	2016			
827	814	Members of the pension fund	824	838			
422	430	Of which pensioners	435	427			
405	384	No. of active pension scheme members	389	411			

#### Pension disbursement flow Statnett SF

The average weighted maturity for pension liabilities, related to the main scheme in Statnett SF, is estimated at 16 years based on the pension assumptions at 31 Dec. 2017.

Statnett SF' Pensjonskasse does not compare the pension assets against the date of payments for the pension liabilities at 31 Dec. 2017.

# Note 8 Tangible fixed assets and intangible fixed assets

Parent company

i arent company								
(Amounts in NOK million) Aquisition cost at 1 Jan. 16	Power lines 13,202	Land and subsea cables 4,720	Main circuit equip- ment 9,979	Control and auxiliary equip- ment 2,839	ICT equip- ment 2,282	Buildings and land 7,237	Other assets and ope- ration equip- ment 2,389	Total 42,648
Additions, acquisition cost	2,517	71	939	479	871	868	126	5,871
Disposals, acquisition cost	-19	-4	-24	-25	-29	-60	-8	-169
Aquisition cost at 1 Jan. 17	15,700	4,787	10,894	3,293	3,124	8,045	2,507	48,350
Additions, acquisition cost	1,316	382	622	281	483	967	254	4,305
Disposals, acquisition cost	-9	-3	-138	-103	-141	-13	-11	-418
Aquisition cost at 31 Dec. 17	17,008	-5 5,166	11,377	3,471	3,466	8,999	2,750	52,237
Aquisition cost at 51 Dec. 17	17,000	5,100	11,577	5,471	3,400	0,333	2,750	52,251
Accumulated depreciation and amortisation at 1 Jan. 16	4,645	1,068	2,900	1,098	1,149	947	724	12,531
Depreciation and amortisation	337	153	295	169	300	354	481	2,089
Disposals, depreciation and amortisation	-8	-3	-35	-21	-27	-13	-7	-114
Accumulated depreciation and amortisation at 1 Jan. 17	4,974	1,218	3,160	1,246	1,422	1,288	1,198	14,506
Depreciation and amortisation	337	126	356	193	448	232	666	2,358
Disposals, depreciation and amortisation	-9	-	-84	-80	-134	-5	-8	-320
Accumulated depreciation and amortisation at 31 Dec. 17	5,303	1,343	3,431	1,358	1,736	1,515	1,857	16,543
Book value at 31 Dec. 16	10,726	3,569	7,734	2,047	1,702	6,757	1,309	33,844
Book value at 31 Dec. 17	11,705	3,823	7,947	2,112	1,730	7,484	894	35,695
Of which intangible fixed assets								
Book value at 31 Dec. 16	-	-	-	-	367	-	-	367
Book value at 31 Dec. 17	-	-	-	-	360	-	-	360
Of which financial lease								
Book value at 31 Dec. 16	-	-	-	-	155	-	-	155
Book value at 31 Dec. 17	-	-	-	-	149	-	-	149
Of which asset retirement obligations								
Book value at 31 Dec. 16	63	18	79	-	-	-	-	160
Book value at 31 Dec. 17	58	11	83	-	-	-	-	152
Acquisition cost for tangible fixed assets fully depreciated, but still in use	254	329	432	431	729	362	550	3,087
Depreciation rate (straight-line)	0	2-7%	2-5%	3-13%	5-33%	0-7%	0-33%	

# Note 8 Tangible fixed assets and intangible fixed assets

Group

(Amounts in NOK million)	Power lines	Land and subsea cables	Main circuit equip- ment	Control and auxiliary equip- ment	ICT equip- ment	Buildings and land	Other assets and ope- ration equip- ment	Total
Aquisition cost at 1 Jan. 16	13,233	4,720	10,041	2,850	2,291	7,302	2,796	43,233
Additions, acquisition cost	2,517	71	939	479	872	870	158	5,906
Disposals, acquisition cost	-19	-4	-24	-25	-29	-60	-8	-169
Aquisition cost at 1 Jan. 17	15,731	4,787	10,956	3,304	3,134	8,112	2,946	48,970
Additions, acquisition cost	1,316	382	622	281	539	967	141	4,248
Disposals, acquisition cost	-40	-3	-201	-115	-150	-39	-13	-561
Aquisition cost at 31 Dec. 17	17,008	5,166	11,376	3,471	3,523	9,039	3,085	52,668
Accumulated depreciation and amortisation at 1 Jan. 16	4,667	1,068	2,909	1,101	1,152	956	829	12,682
Depreciation and amortisation	340	153	299	169	301	357	501	2,120
Disposals, depreciation and amortisation	-8	-3	-35	-21	-27	-13	-7	-114
Accumulated depreciation and amortisation at 1 Jan. 17	4,999	1,218	3,173	1,249	1,426	1,300	1,323	14,688
Depreciation and amortisation	337	126	355	193	448	234	580	2,273
Disposals, depreciation and amortisation	-34	-	-97	-83	-138	-8	-8	-368
Accumulated depreciation and amortisation at 31 Dec. 17	5,302	1,344	3,431	1,359	1,736	1,526	1,895	16,593
Book value at 31 Dec. 16	10,732	3,569	7,783	2,055	1,708	6,812	1,623	34,282
Book value at 31 Dec. 17	11,705	3,823	7,947	2,112	1,787	7,514	1,179	36,067
Of which intangible fixed assets								
Book value at 31 Dec. 16	-	-	-	-	368	-	53	421
Book value at 31 Dec. 17	-	-	-	-	355	-	58	413
Of which financial lease								
Book value at 31 Dec. 16	-	-	-	-	155	-	-	155
Book value at 31 Dec. 17	-	-	-	-	149	-	-	149
Of which asset retirement obligations								
Book value at 31 Dec. 16	63	18	79	-	-	-	-	160
Book value at 31 Dec. 17	58	11	83	-	-	-	-	152
Acquisition cost for tangible fixed assets fully depreciated, but still in use	254	329	432	431	729	362	526	3,063
Depreciation rate (straight-line)	2%	2-7%	2-5%	3-13%	0-7%	0-7%	0-33%	

Depreciation is based on the management's assessment of the useful life of property, plant and equipment. The assessments may change owing, for example, to technological developments and historical experience. This may entail changes in the estimated useful life of the asset and thus the depreciation. It is difficult to predict technological developments, and the management's view of how quickly changes will come may change over time. If expectations change significantly, the depreciation will be adjusted with effect for future periods.

The estimated useful life, depreciation method and residual value are assessed at least once a year. For most assets, the residual value is estimated at zero at the end of the useful life.

Financial lease is paid for in full in advance. This means that there are no future lease obligations related to the financial lease agreements.

be capitalised:

2017

1.92%

2016

2.05%

## Note 9 Plants under construction

Parent c	ompany			Group
2016	2017	(Amounts in NOK million)	2017	2016
5,909	6,403	Aquisition cost at 1 January	8,432	6,724
6,317	6,091	Additions	8,923	7,525
140	148	Capitalised construction interest	216	170
-5,939	-3,914	Transferred to tangible and other intangible fixed assets	-3,969	-5,963
-24	-130	Write-offs	-130	-24
6,403	8,598	Acquisition cost at 31 December	13,472	8,432
41	-79	Hedge accounting effects	-79	41
6,444	8,519	Plants under construction at 31 December	13,393	8,473
Average capitalis	ation rate us	sed to determine the loan expense that can		

## Contractual obligations as at 31 December 2017

Contractual obligations as at 31 December 2017 amounts to NOK 14.2 billion. The reported obligation includes investment projects where future contractual obligations exceed NOK 50 million.

Effective from 1 January 2018, Statnett purchased the 300 kV grid for the stretch Fana-Kollsnes-Mongstad from BKK Nett AS. In connection with the transfer, the grid facilities were re-classified to transmission grid by the Norwegian Water Resources and Energy Directorate (NVE), effective from the same date as the transfer. The purchase price for the facilities was NOK 1,418 million. For the stretch Mongstad – Modalen, an agreement was signed 11 August 2017 granting BKK Nett AS the right to transfer the facilities when completed in 2019. Estimated purchase price is NOK 2.0 billion.

# Note 10 Profit/loss from financial instruments

This note shows the effects recognized in the income statement related to financial instruments. The table includes income statement effects of currency hedging derivatives related to procurement contracts resulting from operating activities and therefore classified as other operating expenses.

Parent of	company			Group
2016	2017	(Amounts in NOK million)	2017	2016
		Effects included in other operating costs		
-7	-6	Currency hedge ineffectiveness	-6	-7
22	34	Forward premium	34	22
-3	24	Change in fair value of embedded derivatives	24	-3
5	-8	Change in fair value of currency derivatives	-8	5
17	44	Total included in operating costs	44	17
		Financial income		
22	4	Income from investment in subsidiaries	-	-
8	16	Income from investment in associates	20	17
60	109	Interest income	54	39
-20	11	Change in value of derivatives	11	-20
241	320	Gain on currency exchange	332	252
19	32	Other financial income	26	4
330	492	Total financial income	443	292
		Financial costs		
-	-	Cost from investment in associates	1	7
531	620	Interest costs	616	527
-141	-148	Capitalised construction interest	-216	-169
255	306	Loss on currency exchange	330	270
22	45	Other financial costs	48	26
667	823	Total financial costs	779	661

# Note 11 Overview of financial instruments

This note gives an overview of book value and fair value of financial instruments, including accounting treatment. The table also shows at which level in the valuation hierarchy the different measurement methods for the Group's financial instruments measured at fair value are classified, compared to how objective the measurement method is.

Parent company (Amounts in NOK million)			201	7	201	6
Assets	Category	Measure-	Book	Fair	Book	Fair
Fixed assets		ment level	value	value	value	value
Long-term receivables	Loans and receivables	-	61	61	57	57
Long-term receivables group companies	Loans and receivables	-	135	135	135	135
Subord. capital in Statnett SFs pension fund	Fair value through profit/loss	3	75	75	75	75
Financial assets available for sale	Available for sale	3	3	3	10	10
Derivatives	Fair value through profit/loss	2	3,060	3,060	3,351	3,351
Total fixed asset investments			3,334	3,334	3,628	3,628
Current assets						
Trade accounts receivable	Loans and receivables	-	871	871	272	272
Derivatives	Fair value through profit/loss	2	82	82	92	92
Short-term receivables group companies	Loans and receivables	-	3,021	3,021	1,494	1,494
Other short-term receivables	Loans and receivables	-	2,270	2,270	870	870
Total trade accounts and other short-term			6,244	6,244	2,728	2,728
receivables			0,244	0,244	2,720	2,720
Investment in market-based securities	Fair value through profit/loss	1	652	652	315	315
Liquid assets	Fair value through profit/loss	-	870	870	1,798	1,798
Liabilities						
	Other liabilities	2	24 540	25 562	25.266	26.022
Long-term interest-bearing debt	Other liabilities	2	34,510 160	35,563	25,366	26,023
Long-term interest-bearing debt group		2		160		-
Derivatives	Fair value through profit/loss	Z	707	707	591	591
Total long-term interest-bearing debt			35,377	36,430	25,957	26,614
Short-term interest-bearing debt	Other liabilities	2	3,953	3,919	6,613	6,549
Short-term interest-bearing debt group	Other liabilities	2	197	197	198	198
Derivatives	Fair value through profit/loss	2	19	19	63	63
Total short-term interest-bearing debt			4,169	4,135	6,874	6,810
Trade accounts payable and other short-term debt	Other liabilities	-	2,303	2,303	1,788	1,788
Total management lavala						
Total measurement levels			650	650	245	245
Level 1			652	652	315	315
Level 2			-36,404	-37,423	-29,388	-29,981
Level 3			78	78	85	85

# Note 11 Overview of financial instruments

Group (Amounts in N	VOK million)
---------------------	--------------

Group (Amounts in NOK million)			201	7	2016	6
Assets	Category		<b>D</b> a da	<b>F</b> . i	Deale	E . in
Fixed assets		Measure- ment level	Book value	Fair value	Book value	Fair value
Long-term receivables	Loans and receivables	-	62	62	58	58
Subord. capital in Statnett SF's pension fund	Fair value through profit/loss	3	75	75	75	75
Financial assets available for sale	Available for sale	3	3	3	10	10
Derivatives	Fair value through profit/loss	2	3,060	3,060	3,351	3,351
Total financial fixed assets			3,200	3,200	3,494	3,494
Current assets						
Trade accounts receivable	Loans and receivables	-	865	866	265	265
Derivatives	Fair value through profit/loss	2	82	82	92	92
Other short-term receivables	Loans and receivables	-	2,616	2,615	931	931
Total trade accounts and other short-term receivables			3,563	3,563	1,288	1,288
Investment in market-based securities	Fair value through profit/loss	1	1,086	1,086	731	731
Liquid assets	Fair value through profit/loss	-	1,319	1,319	2,300	2,300
Liabilities						
Long-term interest-bearing debt	Other liabilities	2	34,510	35,563	25,366	26,023
Derivatives	Fair value through profit/loss	2	707	707	591	591
Total long-term interest-bearing debt			35,217	36,270	25,957	26,614
Short-term interest-bearing debt	Other liabilities	2	3,953	3,919	6,613	6,549
Derivatives	Fair value through profit/loss	2	19	19	63	63
Total short-term interest-bearing debt			3,972	3,938	6,676	6,612
Trade accounts payable and other short-term debt	Other liabilities	-	3,310	3,310	2,300	2,300
Total measurement levels						
Level 1			1,086	1,086	731	731
Level 2			-36,047	-37,066	-29,190	-29,783
Level 3			78	78	85	85

There have not been any transactions between the measurement levels during 2016 and 2017. In 2017 bonds have been sold that are classified in available for sale and measured in level 3.

# Note 11 Overview of financial instruments

#### Financial assets and liabilities

The fair value of forward exchange contracts is determined by applying the forward exchange rate on the balance sheet date. The fair value of currency swaps and interest rate swap is calculated as the present value of future cash flows. Fair value is mainly confirmed by the financial institution Statnett has contracts with.

The fair value of financial assets and long-term liabilities accounted for at amortised cost has been calculated:

- using qoted market prices,
- using interest rate terms for liabilities with a corresponding maturity and credit risk, or

- using the present value of estimated cash flows discounted by the interest rate that applies to corresponding liabilities and assets on the balance sheet date.

In the case of financial instruments such as financial assets available for sale, trade account receivables and other short-term receivables, liquid assets, trade accounts payable and other current liabilities, it is assumed that the book value is the best estimate for fair value, due to the short-term nature of the items.

#### Measurement of financial instruments

The Group uses the following measuring hierarchy to measure and present the fair value of financial instruments:

- Level 1: Fair value is measured using listed prices from active markets for identical financial instruments. No adjustments are made with regard to these prices.
- Level 2: Fair value is measured using other observable input than used at level 1, either directly (prices) or indirectly (derived from prices).
- Level 3: Fair value is measured using input that is not based on observable market data.

Listed shares, money market and interest rate funds, bonds and certificates are considered level 1 because the securities are listed on the stock exchange and freely negotiable, and measured at the most current market price. Shares and ownership interests that are not listed on the stock exchange are assessed based on corporate accounts and are consequently considered to be at level 3.

Derivatives are considered level 2. The currency element of currency futures contracts is measured at observable market prices applying Norges Bank rates. Different maturity dates mean that an interest rate element is added which provides a calculation of the fair value of currency futures contracts.

# Note 12 Derivatives

Derivatives are used in risk management to hedge risks related to interest and currency. The fair value of the derivatives fluctuates with underlying prices, and the footnote presents fair value at the balance sheet date.

#### Fair value measurement

Foreign exchange forward contracts are measured at fair value based on observable forward rates on contracts with comparable terms on the balance sheet date. Fair value for interest and currency swap contracts is the present value of future cash flows based on observable market rates and foreign currency rates at the balance sheet date.

#### The derivatives relates to hedge relationships as follows:

#### Cash flow hedges

Statnett enters cash flow hedges to hedge interest rate risk on loans with floating interest. The interst rate risk is hedged using interest rate swaps where Stanett receives floating rate and pays a fixed rate. All derivatives defined as hedging instruments in cashflow hedges are booked at fair value in the balance sheet, while changes in fair value are temporarily through equity over OCI - other income and expenses. When the cash flow is due, prior periods fair value changes related to the hedging instruments are removed from equity to ensure that the hedging instrument and the hedged items affects the result in the same period.

#### Fair value hedges

Statnett enters fair value hedges to hedge interest rate risk on fixed rate loans and foreign currency risk on interest bearing debt in foreign currency. Most of the debenture bond in Statnett are fixed rate bonds. The interest rate risk is hedged with interest rate swaps where Statnett receives fixed rates and have payments in floating rate. Underlying loans are booked at amortised cost. Fair value hedges through foreign exchange forward contracts are also used to hedge currency risk related to investment contracts. Unrealised gains / losses on the forward contracts are included in plants under construction.

#### Economic hedge - derivatives not included in hedge accounting

Statnett also holds derivatives that does not qualify for hedge accounting under IFRS. However all derivatives are related to entered contracts. These derivatives are measured at fair value and all changes in value are recorded periodically in the income statement. This type of derivatives are referred to as "Free standing derivatives".

#### Embedded currency derivatives

Statnett will seperate embedded derivatives if agreed payment is in a currency different from the contract parties own functional currency, or that the contract is not considered to be commonly used for the relevant economic environment defined as the countries involved in the transaction. Embedded derivatives are recorded at fair value in the income statement.

## Note 12 Derivatives

#### Derivatives related to debt

Interest rate and currency swaps

These are agreements where the contracting parties exchange currency and/or interest rate terms for an agreed amount over a defined future period.

All interest rate and currency swaps are related to underlying loans. Any loss/gain on the swap will therefore correspond to the gain/loss on the loan.

### Repayment profile for derivatives related to debt

### Parent Company and Group

Parent Company and Group (Amounts in NOK million)	Under 1 year	1 to 5 years	5 to 10 years	10 to 15 years	>15 years	Total market value	Type of hedge accounting
Interest swap fixed to floating	-	37	389	31	-	457	Fair value hedge
Interest swap floating to fixed	-	-149	-2	-	-	-151	Cashflow hedge
Interest and currency swap	2	356	451	720	716	2,245	Fair value hedge
Interest and currency swap	-	-	-	-205	-	-205	Cashflow hedge
Interest and currency swap	-	13	-	-	-	13	Free standing derivatives
Total	2	257	838	546	716	2,359	

#### Derivatives related to investments in foreign currency

Forward exchange options

Statnett makes use of forward exchange contracts in order to hedge the currency risk on major acquisitions in currencies other than NOK.

#### Overview of derivatives related to investments in foreign currancy

Parent Company and Group		Nominal amount	Hedging	Market	Under		Total
(Amounts in NOK million)	Currency	currency	rate	rate		1 to 5 years	market value
Assets							
Fair value hedge	EUR	149	9.49	9.94	65	2	67
Fair value hedge	SEK	814	1.00	1.01	9	-	9
Free standing derivatives	EUR	5	9.56	9.95	1	1	2
Embedded derivatives	EUR	13	-	-	3	-	3
Embedded derivatives	CHF	62	-	-	1	-	1
Total assets					80	3	83
Liabilities							
Fair value hedge	EUR	-8	9.81	9.93	-1	-	-1
Free standing derivatives	EUR	8	1.01	1.00	-	-	-
Embedded derivatives	EUR	40	-	-	-15	-7	-22
Embedded derivatives	CHF	68	-	-	-2	-	-2
Total liabilities					-19	-7	-
Total forward exchange options					61	-4	-1

# Note 13 Interest-bearing liabilities

Parent company

#### Repayment profile for interest-bearing debt

The loans are measured at amortised cost adjusted for the effect of fair value hedging.

Maturity date (Amounts in NOK million) Fixed rate loans	Under 1 year	1 to 5 years	5 to 10 years	10 to 15 years	15 years +	Total
Bond issues	-	2,569	5,574	15,967	546	24,656
Total fixed rate loans	-	2,569	5,574	15,967	546	24,656
Floating rate loans						
Collateral under CSA agreements	2,795	-	-	-	-	2,795
Other interest-bearing debt	216	405	2	460	-	1,083
Bond issues	999	887	2,001	-	-	3,888
Loans from financial institutions	158	1,689	2,052	2,290	936	7,125
Total floating rate loans	4,169	2,981	4,055	2,750	936	14,891
Total short-term debt	4,169	-	-	-	-	4,169
Total long-term debt	-	5,550	9,629	18,717	1,481	35,377
Total interest-bearing debt	4,169	5,550	9,629	18,717	1,481	39,546

portifolio 1 vear	vears	vears	vears	vears +	Total
(Amounts in NOK million) 31,164	1,523	4,404	2,455	-	39,546

### Group

The repayment profile for interest-bearing debt of the group differs from parent company's repayment profile with intra-group loans that are eliminated from "Other interest-bearing debt" by a total of NOK 357 million. Statnett has two intra-group loans of NOK 197 million, payable on demand and classified as short-term debt, and one intra-group loan of NOK 160 million with due date 1 - 5 years.

# Note 13 Interest-bearing liabilities

Information about interest-bearing debt and derivatives	Principal debt Currency	Principal debt NOK	Principal swap NOK	Interest rate Ioan	Interest rate swap	Fair value swap
Secured liabilities - fair value hedging	(Amounts in million)	(Amounts in NOK million)	(Amounts in NOK million)			(Amounts in NOK million)
NOK	4,660	4,660	4,660	3.74%	1.31%	456
JPY	4,000	201	201	1.97%	1.12%	-90
CHF	150	923	923	2.39%	1.41%	439
SEK	1,200	1,177	1,177	0.11%	1.25%	9
USD	1,080	7,208	7,208	3.17%	1.81%	1,520
EUR	570	5,213	5,213	1.39%	1.54%	366
Secures liabilities - cash flow hedging						
NOK	2,693	2,693	2,693	0.86%	2.61%	-150
USD	360	3,039	3,039	2.79%	1.83%	-205
Unsecured liabilities						
NOK - floating interest rate	4,800	4,800	-	1.94%	0.00%	-
NOK - fixed interest rate	5,434	5,434	-	1.29%	0.00%	-
Free standing derivatives						
NOK	-	-	700	1.24%	1.30%	-
SEK	-	-	180	0.00%	0.93%	13
CSA						
NOK	1,126	1,126	-	*	-	-
EUR	170	1,669	-	**	-	-

-

-

Total

2,359

\* NOWA (Norwegian Overnight Weighted Average rate) - daily interest for deposits in NOK

\*\* EONIA overnight - daily interest rates announced by the European Banking Federation (EBF)

# Note 14 Interest-bearing assets

Market-based securities	
Parent company	

Parent c	ompany		Group		
Acquisition cost	Book value	(Amounts in NOK million)	Acquisition cost	Book value	
		Bonds and interest rate funds			
-	-	Municipality/municipal operations	25	25	
-	-	Financial institutions, including banks	312	314	
-	-	Private/industry	23	23	
654	652	Norw. interest rate and money market fund	654	652	
654	652	Total bonds	1,014	1,014	
		Equity funds			
-	-	Norwegian equity funds	20	36	
-	-	Foreign equity funds	21	36	
-	-	Total equity funds	41	72	
654	652	Total market-based securities	1,055	1,086	

### Age distribution trade receivables

(Amounts in NOK million)	Not due	1-30 days	31-60 days	61-90 days	Over 90 days	Total trade acc. rec.
Parent company	856	9	-	-	5	870
Group	848	9	-	-	8	865

Group

# Note 15 Financial risk management

#### **Financial risk**

The object of Statnett SF's financial policy is to ensure that the enterprise achieves the necessary financing of planned operational and investment programmes at the lowest possible cost, risk included. Statnett SF's financial policy also comprises aims and frameworks for minimising the enterprise's credit, interest rate and foreign exchange risks. Statnett SF uses financial derivatives to manage the financial risk.

#### **Capital management**

The loan agreements do not impose any capital requirements on the enterprise which are expected to restrict the capital structure in the Group. Nor are there any explicit equity requirements other than those stipulated in applicable laws and regulations. The main objective of Statnett's capital management structure is to ensure that the enterprise has a sound financial position, which enables the enterprise to operate and develop the main grid in a socio-economically profitable manner in line with plans and the owner's expectations. It is a priority with the Statnett Board of Directors to maintain a robust A rating or better, and in January 2014 the owner increased it's equity contribution and reduced the dividend rate for the fiscal years 2013-2016. In connection with the National budget for 2017, this dividend policy extended to include 2017 and 2018. During this period expected dividend will be 25 per cent of the Group's net profit for the year, adjusted for the changed balance for higher/lower revenues after tax (underlying result). Moreover, the capital structure is managed by raising and paying off short-term and long-term debt, as well as through changes in liquid assets. There have been no changes to capital management guidelines or objectives through the year.

#### Overview of capital included in capital structure management:

Parent of	company
-----------	---------

r arent company		C C	noup		
	2016	2017	(Amounts in NOK million)	2017	2016
	25,957	35,377	Long-term interest-bearing liabilities	35,217	25,957
	6,874	4,169	Short-term interest-bearing liabilities	3,972	6,676
	2,113	1,522	Liquid assets and investment in market-based securities	2,405	3,031
	30,718	38,024	Net liabilities	36,784	29,602

#### Liquidity risk

Statnett SF aims to be able to carry out 12 months of operations, investments and refinancing without raising any new debt. This will make Statnett less vulnerable during periods of low access to capital in the financial markets and periods with unfavourable borrowing conditions. Liquidity is followed up continuously through weekly reporting.

Statnett reduces liquidity risk related to maturity of financial liabilities by having an evenly distributed maturity structure, frameworks for how much of the loan portfolio can be due within a 12-month period, access to several sources of financing in Norway and abroad, as well as sufficient liquidity to cover scheduled operations, investment and financing needs without incurring any new debt within a time horizon of 12 months.

31 December the liquidity consists of bank/time deposits, investments in market-based securities and a credit facility of NOK 8 billion, running until January 2022. The credit facility has not yet been utilised. Up to NOK 4 billion of the credit facility can be drawn at very short notice. Together with other sources of liquid assets, Statnett has a good ability to handle large liquidity needs that may occur at short notice, e.g. related to collateral for derivatives under CSA agreements with weekly settlement. In addition Statnett has a loan agreement of EUR 300 million, of which EUR 200 million is undrawn as of year-end.

Statnett SF has a high credit rating. Standard & Poor's and Moody's Investor Service have given Statnett SF credit ratings for long-term borrowings of A+ and A2 respectively. The high credit ratings provides Statnett SF good borrowing opportunities.

# Note 15 Financial risk management

The table below shows all gross cash flows related to financial liabilities. The cash flows have not been discounted and are based on interest rates and exchange rates at the end of the reporting period.

(Amounts in NOK million)

Parent company

As at 31. Dec. 2017	Under 1 year	1 to 5 years	5 to 10 years	10 to 15 years	15 years +	Total
Interest-bearing debt and interest payments	7,161	8,904	13,161	17,635	2,948	49,809
Other liabilities	209	194	143	-	-	547
Trade acc.payable and other short-term debt	2,303	-	-	-	-	2,303
Derivatives	3,697	2,886	2,468	10,417	1,724	21,192
Total	13,370	11,985	15,772	28,053	4,671	73,851
Derivatives	Under 1 year	1 to 5 years	5 to 10 years	10 to 15 years	15 years +	Total
Received	3,946	4,224	3,870	12,002	2,585	26,627
Disbursed	-3,697	-2,886	-2,468	-10,417	-1,724	-21,192
Net derivatives	250	1,338	1,402	1,585	861	5,435

(Amounts in NOK million)

Group						
As at 31. Dec. 2017	Under 1 year	1 to 5 years	5 to 10 years	10 to 15 years	15 years +	Total
Interest-bearing debt and interest payments	6,961	8,743	13,161	17,635	2,948	49,447
Other liabilities	209	194	143	-	-	547
Trade acc.payable and other short-term debt	3,311	-	-	-	-	3,311
Derivatives	3,697	2,886	2,468	10,417	1,724	21,192
Total	14,177	11,823	15,772	28,053	4,671	74,497
Derivatives	Under 1 year	1 to 5 years	5 to 10 years	10 to 15 years	15 years +	Total
Received	3,946	4,224	3,870	12,002	2,585	26,627
Disbursed	-3,697	-2,886	-2,468	-10,417	-1,724	-21,192
Net derivatives	250	1,338	1,402	1,585	861	5,435

Group cash and cash equivalents consist of bank deposits.

## Note 15 Financial risk management

#### Credit risk

Statnett SF is exposed to credit risk through the investment of surplus liquidity with issuers of securities and through the use of various interest rate and currency derivatives. In order to limit this risk, Statnett has set credit limits based on the creditworthiness of counterparties, the maximum exposure for each counterparty and collateral agreements with the most significant counterparts (CSA agreements). Creditworthiness is assessed at least once a year, and the counterparty risk is continuously monitored to ensure that Statnett's exposure does not exceed the set credit limits and complies with internal rules.

Parent company			G	Group		
2016	2017	(Amounts in NOK million)	2017	2016		
1,798	870	Liquid assets	1,319	2,300		
315	652	Investment in market-based securities	1,086	731		
3,443	3,142	Derivatives	3,142	3,443		
192	196	Long-term receivables, excl. derivatives	62	57		
2,637	6,162	Trade accounts and other short-term receivables, excl. derivatives	3,481	1,202		
8,385	11,022	Total maximum credit exposure	9,090	7,733		

#### Foreign exchange risk

Foreign exchange risk is the risk of fluctuations in foreign exchange rates that will result in changes in Statnett's income statement and balance sheet. The liabilities undertaken by Statnett in foreign currencies in connection with investment projects are mainly hedged using currency swaps and the effect in the income statement are included in regulated revenue. All loans in foreign currency are converted into NOK using cross currency interest swap agreements. At the end of the reporting period, the foreign exchange reserves not swapped or reserved for future obligations totalled NOK 229 million for the parent company and NOK 383 million for the Group. The reserves mainly consist of bank deposits. In addition, foreign equity funds and shares totalled NOK 36 million for the Group.

#### Interest rate risk

The Group is exposed to interest rate risk through its loan portfolio, liquid assets and financial hedges. Statnett SF is also exposed to interest rate levels on which the revenue cap for the grid operations is based (the NVE interest rate).

In order to reduce the interest rate risk and minimise fluctuations in the result, the interest rate on Statnett's debt must correlate to the extent possible with the NVE interest rate. The NVE interest rate is calculated on the basis of daily averages of the five-year swap interest rate. In addition, the NVE interest rate comprises some fixed interest rates with the addition of inflation and a surcharge for credit risk. To achieve the desired fixed-interest period on the enterprise's debt, interest rate swap agreements linked to the underlying debt are used.

#### Average effective interest rate

The table below shows the average effective interest rate for the various types of financial instruments.

Parent con	Parent company		Gro	Group	
2016	2017	(Amounts in NOK million)	2017	2016	
2.60%	1.43%	Investment in market-based securities	1.74%	2.42%	
-0.20%	0.67%	Deposits	0.68%	0.16%	
-	-	Shares and equity funds	18.93%	8.50%	
2.05%	1.97%	Loans	1.97%	2.05%	

### Note 15 Financial risk management

Se	ensitivity analys	is			
Int	terest rate sens	itivity			
(A	mounts in NOK i	million)			
Parent company		npany	Change in interest rate level	Group	
	2016	2017	Percentage points	2017	2016
	-7	-8	+ 1	-16	-14
	7	8	- 1	16	14

The table shows the sensitivity of the parent company and the Group to potential changes the in interest rate on asset placements. It shows the effect on the result of a change in the interest rate levels as at 31 December 2017.

#### Exchange rate sensitivity

(Amounts in NOK million)

Parent company		Change in NOK exchange rate		Group	
2016	2017	Percent	2017	2016	
8	11	+ 5	21	19	
-	-	- 5	-	-	

The table shows the sensitivity of the company to potential changes in the exchange rate of the Norwegian Krone, if all other factors remain constant. The calculation is based on an identical change in relation to all relevant currencies. The effect on the result is due to a change in the value of monetary items that are not fully hedged. Other monetary items and all foreign currency debt are hedged, and the change in value is matched by a change in the value of the derivative.

### Note 16 Taxes

#### The tax expense comprises the following

Parent company			Group	
2016	2017	(Amounts in NOK million)	2017	2016
-	350	Income tax	368	27
-1	-1	Income tax previous years	-1	-3
200	-141	Change in deferred tax/tax benefit	-158	165
-50	-43	Change in tax rates	-46	-52
148	165	Тах	163	138

#### Tax payable in income statement

Parent company				Group	
2016	2017	(Amounts in NOK million)	2017	2016	
-	350	Income tax payable on the profit of the year	368	27	
-	-	Tax effect of group contribution	-	-17	
-	350	Taxes payable	368	10	

#### Tax payable in the balance sheet

Pa	Parent company		(	Group	
20	016	2017	(Amounts in NOK million)	2017	2016
	-	350	Tax payable for the year	368	27
	-	-31	Tax payable on group contribution	-33	-17
	-	319	Tax payable	335	10

#### Reconciliation of nominal tax rate and effective tax rate

The following table provides a reconciliation of reported tax expense and tax expense based on nominal tax rate of 24 percent.

Parent	Parent company			Group	
2016	2017	(Amounts in NOK million)	2017	2016	
816	893	Profit before tax	976	783	
204	214	Expected tax expense at nominal rate	218	201	
-	-	Effect on taxes of:	-	-	
-7	-7	Permanent differences	-10	-9	
2	2	Share of profit/loss in associates	2	2	
-1	-1	Changes in previous years taxes	-1	-3	
-50	-43	Changes in tax rates	-46	-52	
148	165	Тах	163	138	
18%	18%	Effective tax rate	17%	18%	

#### Notes

### Note 16 Taxes

#### Breakdown deferred tax

The following table provides a breakdown of the net deferred tax. Deferred tax assets are recognised in the balance sheet to the extent it is probable that these will be utilised. The tax rate used when assessing deferred tax is 23 percent as of 31 December 2017 (24 percent as of 31 December 2016).

Parent company

(Amounts in NOK million)	31.12.16	Recognised	Other compre- hensive income	Group contribution	31.12.17
Current assets/current liabilities	-14	28	-	31	45
Fixed assets	1,090	1	-	-	1,091
Pension liabilities	-29	15	-67	-	-81
Other long term items	148	-278	-23	-	-153
Group contribution	-	-	-	-	-
Tax loss carried forward	-52	52	-	-	-
Total	1,145	-185	-90	31	902

Group

(Amounts in NOK million)	31.12.16	Recognised	Other compre- hensive income	Group contribution	31.12.17
Current assets/current liabilities	-14	23	-	31	40
Fixed assets	1,139	57	-	-	1,196
Pension liabilities	-29	14	-67	-	-82
Other long term items	164	-307	-23	-	-164
Tax loss/interest expenses carried forward	-55	9	-	-	-46
Total	1,205	-204	-90	31	944

#### Deferred tax recognised in comprehensive income

Parent company				Group
31.12.16	31.12.17	(Amounts in NOK million)	31.12.17	31.12.16
24	-67	Change in estimate deviations of pension liabilities	-67	24
-3	-23	Changes in fair value for cash flow hedges	-23	-3
21	-90	Total deferred tax recognised in comprehensive income	-90	21

## Note 17 Investments in subsidiaries and associates

Statnett SF had the following investments at 31 December 2017:

Company Subsidiaries	Business nature	Year of acquisition	Registered office	Ownership interest	Voting rights	<b>Book value</b> (Amounts in NOK thousand)
Statnett Transport AS	Transport and shipping	1996	Drammen	100%	100%	108,021
Statnett Forsikring AS	Insurance	1998	Oslo	100%	100%	30,200
Nord Link Norge AS	Develop and operate national transmission grid	2010	Oslo	100%	100%	1,667,865
NorGer AS	General Partner	2010/2010	Oslo	100%	100%	29,947
NorGer KS	Limited activity	2010/2011	Oslo	100%	100%	156,986
Nydalshøyden Bygg C AS	Real estate	2013	Oslo	100%	100%	8,739
Statnett Rogaland AS	Develop and operate national transmission grid	2014	Sandnes	100%	100%	149,693
Elhub AS	Datahub for electricity meetering data	2014	Oslo	100%	100%	166,492
Fifty AS	Develop and operate regulation- and market systems	2017	Oslo	100%	100%	100
Total subsidiaries						2,318,043
Associates			_			
Nord Pool AS	Markedplace	2002/2008	Bærum	28.2 %	28.2 %	36,320
eSett OY	Nordic imbalance settlement	2013		33.3 %	33.3 %	16,891
KraftCERT AS	IT security	2014	Oslo	33.3 %	33.3 %	470
Total associates						53,681
Total subsidiaries and associate	25					2,371,724
Group value of companies recon (Amounts in NOK thousand)	rded according to the equity method	l				
2017			Group value at 1 Jan.	Result for the year	Dividend	Group value at 31 Dec.
Nord Pool AS, 28.2%			88,850	12,082	-15,604	85,328
eSett OY, 33.3%			00,000 817	7,933	-15,004	8,750
KraftCERT AS, 33.3%			819	-399	-	420
Total associates			90,486	-399 <b>19,616</b>	-15,604	94,498
			30,400	13,010	-13,004	57,730

2016				
Nord Pool AS, 28.2%	80,217	6,301	-7,808	88,850
eSett OY, 33.3%	8,061	-7,244	-	817
KraftCERT AS, 33.3%	1,678	-859	-	819
Total associates	89,956	-1,802	-7,808	90,486

## Note 18 Joint Operations

The group has entered into agreements with transmission system operators in the Netherlands, Denmark, Germany and England to construct and operate subsea cables to the continent and the UK. These agreements are regarded as joint operations under IFRS.

#### Subsea cables in operation

TenneT TSO BV and Statnett SF have constructed a subsea cable to transport energy between Norway and the Netherlands, known as the NorNed cable. Each party owns its physical half of the cable, with Statnett SF owning the northern part and TenneT the southern part. The NorNed cable became operational in May 2008. Costs and trading revenues from the operation of the NorNed cable are shared equally between TenneT and Statnett.

Statnett SF owns Skagerrak cables 1-3 whereas Energinet.dk holds a long-term lease agreement for half of the cable capacity. Income from the lease is included in "Other operating revenue". At the end of December 2014, the Skagerrak Cable 4 became operational. Statnett SF and Energinet.dk each own its physical half of the cable, with Statnett SF owning the northern part and Energinet.dk owning the southern part. Costs and trading revenues related to the operation of the Skagerrak cables are shared equally between Energinet.dk and Statnett SF.

Statnett SF's assets in the cables are included in the asset group Land and subsea cables in the note related to fixed assets and intangible assets.

#### Subsea cables under construction

In the autumn 2012 Statnett SF signed a cooperation agreement with the German companies TenneT and KfW in order to realize an HVDC interconnector between Norway (Tonstad) and Germany (Wilster). The project's name is NordLink. NordLink has a transmission capacity of 1400 MW. The interconnector consists of 53 km overhead line on the Norwegian side, a 514 km submarine cable and a 55 km land cable on the German side. The ownership will be shared equally, where Statnett SF will own the northern part through the wholly owned subsidiary NordLink Norge AS and TenneT and KfW will own the southern part through a jointly owned German company. Costs and trading revenues are to be shared equally between Germany and Norway. Trading- and technical licenses were granted for the cable in October 2014. Final investment decision was taken in February 2015. The interconnector is planned to be in operation in 2020.

National Grid NSN Link Ltd (NLL) and Statnett SF plan to realize an HVDC interconnector between Kvilldal in Norway and Blyth in North-East England. The project's name is North Sea Link and the transmission capacity will be 1400 MW. The ownership will be shared equally, with Statnett SF as the owner of the eastern part and NLL the western part. Costs and trading revenues shall be shared equally between the parties. Technical license was already in place when the trading license was granted in October 2014. Final investment decision was taken in March 2015. The interconnector is planned to be in commercial operation in 2021.

The value of work performed on the subsea cables under construction is included in the line Plants under construction in the balance sheet.

## Note 19 Related parties

As at 31 December 2017, Statnett SF was wholly-owned by the Norwegian State through the Ministry of Petroleum and Energy (MPE). Statnett has the following relations with MPE both as owner and regulatory authority.

#### **Regulatory authority**

The Norwegian parliament (Storting) is the legislative authority that passes legislation based on bills put forward by the government. Regulations are adopted by the King in Council. The MPE administers its areas of responsibilities and delegates the administration of the greater part of the Energy Act to The Norwegian Water Resources and Energy Directorate (NVE). Pursuant to the Norwegian Public Administration Act, any administrative decision made by the NVE can be appealed to the MPE as the superior authority.

Other related parties:

Parent company	Subsidiary	Associate
Statnett SF	Statnett Transport AS	Nord Pool AS
	Statnett Forsikring AS	eSett OY
	Nydalshøyden Bygg C AS	KraftCERT AS
	NordLink Norge AS	
	Elhub AS	
	NorGer KS	
	NorGer AS	
	Fifty AS	
	Statnett Rogaland AS	

The subsidiaries are all wholly owned by Statnett SF, though so that Statnett SF owns 100 percent of the shares in NorGer AS and 90 percent of the shares in NorGer KS. In addition, NorGer AS owns 10 percent of the shares in NorGer KS. This entails that Statnett SF, including indirect ownership, also controls 100 percent of the shares in NorGer KS.

Statnett SF has an ownership interest in Nord Pool AS of 28.2 percent. Statnett SF has an ownership of 33.3 percent in eSett OY and of 33.3 percent in Kraft CERT AS.

Statnett SF is the borrower of the Group's external loans. The central treasury function in Statnett SF coordinates and manages financial risks related to currency, interest rates and liquidity within the Group. Loan agreements have been entered into between Statnett SF and its subsidiaries. In addition, there are agreements entered relating to services between companies within the Statnett Group. All agreements are part of normal commercial operations, and the transactions are conducted at market terms. Transactions with subsidiaries relate mainly to the following:

#### Statnett Forsikring AS

Statnett Forsikring AS is licensed to provide insurance coverage and reinsurance, though limited to companies within the Statnett Group where the ownership exceeds 50 percent. In addition, Statnett Forsikring AS operates both as a direct personal insurance company and a non-life insurance company.

#### Statnett Transport AS

Statnett Transport AS provides transportation services, transporting heavy machinery/equipment on land and at sea. Statnett Transport AS has a subordinated loan from Statnett SF and the loan ranks behind other creditors. Statnett also provides administrative services within ICT, legal, purchasing and finance.

#### NordLink Norge AS

NordLink Norge AS will build and own the northern part of NordLink, an electricity cable connecting the German and the Norwegian highvoltage electricity grids. The German companies TenneT and KfW, through a jointly owned German company, will build and own the southern part of NordLink. NordLink will be the first direct interconnector between the Norwegian and German electricity markets. NordLink will be operated by the transmission system operators, Statnett and TenneT respectively. Statnett SF is committed to providing the necessary funding for the project and has entered into a Capital Contribution Agreement with NordLink Norge AS. The funding committed is equal to NordLink Norge AS 50 percent share of the total investments costs related to the project. The drawdown will be made at intervals ensuring that NordLink Norge AS will be in a position to fulfil its own obligations.

Statnett SF has issued payment guarantees towards the main suppliers on NordLink Norge AS' behalf according to the terms and conditions in the agreements entered into with the respective suppliers. The guarantee fee is at market terms.

## Note 19 Related parties

NordLink Norge AS has no employees. Statnett SF provides project services in the construction phase in addition to certain administrative services to support the operation of the company.

#### Elhub AS

Elhub is the central datahub for metering values and market processes in the Norwegian electricity market. Its main function is automated metering processing and distribution of same, as well as processing of market processes such as change of electricity supplier, transfers and reporting. The datahub will become operational in the first quarter of 2019.

Statnett SF is committed to providing the necessary funding of the project. The drawdown will be made at intervals ensuring that Elhub AS will be in a position to fulfil its own obligations. A fee equal to 0.21 percent pa of unused credit facility will be charged by Statnett SF. Statnett SF also provides certain administrative services within ICT, legal, purchasing and finance.

#### Statnett Rogaland AS

Statnett Rogaland AS is a wholly owned subsidiary. Until 1 January 2017, Statnett Rogaland AS owned the national transmission grid in Sør-Rogaland, and Statnett SF leased the grid on terms equal to those of other national transmission grid owners. Statnett SF provided project services and certain administrative services within ICT, legal, purchasing and finance.

As per 1 January 2017, the activity regarding the national transmission grid was transferred to Statnett SF. After the business transfer, Statnett SF has the full economic responsibility regarding the transmission grid. Statnett Rogaland AS has limited operation after the transaction.

#### Nord Pool AS

Statnett SF purchases transmission losses on Nord Pool AS on a daily basis and settle at the power exchange's market prices

#### Dividend and group contribution

In 2017, Statnett SF has received dividends and group contribution from subsidiaries and associates at the amount of NOK 21 million.

Statnett SF inter-company accounts

	Trade acc	counts	Lendin	g	Borrowii	ng	Trade acc. P	ayable
(Amounts in NOK million)	2016	2017	2016	2017	2016	2017	2016	2017
Subsidiaries	11	50	1,628	3,156	198	357	11	28

#### Interest rates

Subsidiaries

Interest rates on long-term borrowing and lending have been agreed at six months' NIBOR with a mark-up in the interval 0.5 - 2.5 percent.

Statnett SF's intra-group trading

	Operating reveues re	gulated	Operating re	veues	Operati	ng costs	
(Amounts in NOK million)	2016	2017	2016	2017	2016	2017	
Subsidiaries	34	33	106	59	-163	-132	
	Financial re	evenues	Financial c	osts			
(Amounts in NOK million)	2016	2017	2016	2017			
Subsidiaries	57	89	-4	-5			
	Group contribution r	eceived	Dividend rec	eived			
(Amounts in NOK million)	2016	2017	2016	2017			

q

4

21

## Note 20 Remuneration/benefits to Group Management

#### The Board's statement regarding salaries and other remunerations to Group management 2017

The statement concerning remuneration to the President and CEO and the Group management has been prepared in accordance with the enterprise's articles of association, provisions in the Public Limited Liability Companies Act as well as the Ministry of Trade, Industry and Fisheries "guidelines for salary and other remuneration for group management in enterprises and companies with state ownership".

#### Management remuneration policy

The Group's guiding principle is to keep remuneration and other benefits for the Group management at a competitive level to ensure that the Group attracts and retains high-quality senior executives, though not taking a leading position when it comes to salary. However, the salary must be competitive for our industry and compared to other companies recruiting in the same market as Statnett. Also, the salary must reflect individual experience, area of responsibility and achieved results. The management remuneration policy is applicable for Statnett SF and subsidiaries.

#### Guidelines for salary and other remuneration

Based on the Ministry of Trade, Industry and Fisheries "guidelines for salary and other remuneration for group management in enterprise and companies with state ownership" the Board of Directors has set a framework for elements to be included in the Group's future salary and remuneration package for new members of Group management. The following guidelines are applicable:

**Fixed salary:** Fixed salary is determined based on an assessment of the specific position and the market, measured against Statnett's policy of offering competitive terms, but not taking a leading position. When the fixed salary is determined, the total remuneration should be used as basis.

Pensions: Membership in Statnett's defined contribution plan. This entails no new individual pension agreements.

**Personnel insurance:** Arrangements applicable for other employees including group life-, accident-, sickness insurance as well as occupational injury- and travel insurance, are also applicable for Group management.

Car arrangement: Car allowance can be given, and in exceptional cases company car can be offered if needed in the line of duty.

**Other remunerations:** Coverage of newspapers, mobile phone and broadband communication in accordance with established standards.

Internal board members: Internal board members do not receive remuneration, however board insurance exists for all board members.

This is applicable for Statnett SF and subsidiaries and will also be applicable for 2018.

#### Existing arrangements for Group management

The remuneration to the Group management is prepared in accordance with the guidelines describe above. The Group management may have different remuneration due to individual agreements entered before the guidelines were determined.

In addition to a fixed salary, the Group management is entitled to a company car or car allowance, pension benefits and individual pension arrangements for salary beyond 12 times the Norwegian national insurance scheme basic amount. Four members of Group management has a company car. This is in compliance with agreements entered at an earlier stage. There is no bonus scheme or other incentive based schemes for Group management. The retirement age for the President and CEO and the Group management is 65. The President and CEO has a pension agreement securing 66 percent of the pension base upon resignation. The President and CEO is entitled to 12 months' severance pay in the event of dismissal from the company, after a notice period of 6 months. No other members of Group management have agreements for salaries after the termination of their employment. The general manager in two subsidiaries are entitled six months' severance pay, after a notice period of six months.

#### **Remuneration adjustment in 2017**

The remuneration approval for Group management in 2017 was conducted in accordance with the above guidelines in Statnett and subsidiaries. There were no new remuneration agreements entered with members of Group management in 2017. The President and CEO and one member of Group management has changed from company car to car allowance. The Board of Directors approves the annual salary adjustment for the company's president and CEO, and adopts a framework that the president and CEO uses to adjust the salaries for the rest of the Group management team. The salaries for the president and CEO and Group management, were in 2017 adjusted within the same limits as the rest of the Group.

The Board of Director's assessment is that the remuneration to Group management, is in compliance with requirements in the Ministry of Trade, Industry and Fisheries "guidelines for salary and other remuneration for group management in enterprises and companies with state ownership".

## Note 20 Remuneration/benefits to Group management

#### Organisation

The Board of Directors has established a remuneration committee, consisting of two owner-appointed board members and one employee representative. The remuneration committee is an advisory and preparatory body for the Board of Directors, and will put forward proposals for salary adjustments in accordance with the guidelines specified above. Separate instructions has been prepared for the remuneration committee. The president and CEO is a regular member of the committee. The Senior Vice President Employer Relations acts as committee secretary.

Group management remuneration/benefits (Amounts in NOK)			neration
Styret		2017	2016
Per Hjorth	Chair	422,000	415,000
Synne Larsen Homble	Vice Chair	288,000	280,500
Kirsten Indgjerd Værdal	Board member	265,000	246,000
Egil R Gjesteland	Board member	285,000	281,000
Maria Sandsmark	Board member	270,000	263,500
Einar Strømsvåg	Board member	285,000	281,000
Steinar Jøråndstad	Board member *)	265,000	261,000
Nils Ole Kristensen (from June 2016)	Board member *)	230,000	135,100
Karianne Burhol (from June 2016)	Board member *)	265,000	130,500
Pål Erland Opgård (until June 2016)	Board member *)	-	133,000
Ane Meisingset Elgesem (from February 2016 until June 2016)	Board member *)	-	100,400
Total remuneration		2,575,000	2,527,000

All figures are exclusive of employer's NICs

Board members receive compensation for their participation in the audit committee, remuneration committee or project committee. Board remunerations may therefore vary.

\*) In the case of employee representatives, only board members' fees are stated.

Remuneration/benefits to the Group management/board 2017 (Amounts in NOK) Group management	Salary	Other remun- eration*)	Pension cost	Total remun- eration
President and CEO	-	-	-	-
Auke Lont	2,965,666	183,234	2,152,461	5,301,361
Executive Vice Presidents	-	-	-	-
Håkon Borgen	2,041,681	125,599	544,619	2,711,899
Øivind Kristian Rue	2,255,692	145,795	1,229,446	3,630,933
Bente Monica Haaland	1,740,886	151,370	396,512	2,288,768
Knut Hundhammer	2,380,190	120,104	746,421	3,246,715
Peer Olav Østli	1,840,780	155,875	863,229	2,859,884
Elisabeth Vike Vardheim	1,993,334	210,882	624,764	2,828,980
Total remuneration	15,218,229	1,092,859	6,557,452	22,868,540

All figures are exclusive of employer's NICs.

\*) Included value of company car or fixed car allowance, phone, news papers and personal insurance.

# Note 20 Remuneration/benefits to Group Management

Remuneration/benefits to the Group management/board 2016 (Amounts in NOK) Group management	Salary	Other remun- eration*)	Pension cost	Total remun- eration
President and CEO	-	-	-	-
Auke Lont	2,895,931	154,297	2,156,690	5,206,918
Executive Vice Presidents	-	-	-	-
Håkon Borgen	1,993,204	179,487	537,772	2,710,463
Øivind Kristian Rue	2,146,624	176,552	1,186,919	3,510,095
Bente Monica Haaland	1,700,389	144,300	378,838	2,223,527
Knut Hundhammer	2,321,637	114,923	719,992	3,156,552
Peer Olav Østli	1,797,035	136,142	851,686	2,784,863
Elisabeth Vike Vardheim	1,988,674	190,819	607,259	2,786,752
Total remuneration	14,843,494	1,096,520	6,439,156	22,379,170

#### Terms and conditions, senior executives

Title/name	Terms and conditions for retirement age, early retirement pension, retirement pension and severance pay
President and CEO: Auke Lont	<ul> <li>From the age of 65, the full annual retirement pension is 66 per cent of the pension base. The pension base is adjusted annually by the same percentage increase as in the basic amount under the National Insurance Scheme. From the age of 67, the annual retirement pension of 66 per cent will be co-ordinated with the retirement pension disbursed from Statnett SF's Group Pension Fund and the Norwegian National Insurance Scheme.</li> <li>Upon death, any surviving spouse and children under the age of 21 will receive a pension.</li> <li>Should the President become disabled before the age of 65, he will receive a disability pension. The full disability pension equals the retirement pension awarded at the age of 65. The disability pension disbursement will be reduced according to disability.</li> <li>The President and CEO is entitled to 12 months' severance pay in the event of dismissal from the company, after a notice period of 6 months.</li> </ul>
Executive Vice Presidents: Håkon Borgen Øivind Kristian Rue	The retirement age is 65, but with the right to retire with an early retirement pension after the age of 62. In the event of retirement between 62 and 65 an annual payment of 66 per cent of the pension base will be disbursed. The pension base is adjusted annually by the same percentage increase as in the basic amount under the National Insurance Scheme. In the event that income is received from others and this, together with the early retirement pension disbursed by Statnett, exceeds the final salary the early retirement pension will be reduced by 50 per cent of the amount that exceeds the final salary. From the age of 65, the full annual retirement pension is 66 per cent of the pension base. The pension base is adjusted annually by the same percentage increase as in the basic amount under the National Insurance Scheme. Upon death, any surviving spouse and children under the age of 21 will receive a pension. Entitlements to pension benefits beyond what is gained through the collective pension scheme will lapse if they are no longer employed by Statnett SF on their 62nd birthday. Should any of the above persons become disabled before reaching the age of 65, he or she will receive a disability pension. The full disability pension equals the retirement pension awarded at the age of 65. The disability pension disbursement will be reduced according to disability.

**Statnett** 

## Note 20 Remuneration/benefits to Group Management

Title/name	Terms and conditions for retirement age, early retirement pension, retirement pension and severance pay
Executive Vice Presidents: Håkon Borgen Øivind Kristian Rue	For Øivind Rue, the annual retirement pension will be coordinated with the retirement pension disbursed from Statnett SF's Pension Fund and the Norwegian National Insurance Scheme, from the age of 67. Håkon Borgen is as of 1 January 2016 transferred to the enterprise's defined contribution scheme and related compensation plan.
Executive Vice President: Peer Olav Østli	The retirement age is 65, with the right to retire with an early retirement pension at any time after 62. The full contribution period is 30 years. In the event of retirement between ages 62 and 65, an annual payment shall be disbursed of 66 per cent of the pension base, less one percentage point for each year between 62 and 65. The pension base is adjusted annually by the same percentage increase as in the basic amount under the National Insurance Scheme. Pension disbursement may be reduced if the member receives any salary, pension or remuneration from other companies in the Statnett Group.
	From the age of 65, the full annual retirement is 66 per cent of the pension base. The pension base is adjusted annually by the same percentage increase as in the basic amount under the National Insurance Scheme. From the age of 67, the annual retirement pension is covered through the National Insurance Scheme and Statnett's group pension scheme, plus 66 per cent of the part of the pension base that exceeds 12 times the basic amount, provided that there is a full contribution period (30 years).
	Upon death, any children under the age of 21 will receive a children's pension.
	If the Vice President leaves the company before retirement age, a pension rights certificate will be issued, which will secure retirement pension benefits from age 65. The pension rights certificate will be adjusted by 75 per cent of the increase in the basic amount for each year until retirement.
	Upon disability before reaching the age of 65, the Vice President will receive a disability pension. The full disability pension equals the retirement pension awarded at the age of 67, based on the pension base at the time the disability occurred. The disability pension disbursement will be reduced according to disability
Executive Vice Presidents: Knut Hundhammer Bente Monica Haaland Elisabeth Vike Vardheim	The retirement age is 65. A pension agreement has been entered into in addition to the ordinary membership in the enterprise's group pension scheme, where the pension is secured through a bank saving account balance, including interest, disbursed to Vice Presidents. Statnett will, each year until retirement or resignation, pay up to 30 per cent of the difference between the ordinary salary and 12 times the Norwegian national insurance scheme basic amount to the pension fund scheme. Upon death, the surviving spouse or spouse equivalent will receive an amount corresponding to the remaining savings balance including interest from Statnett SF. This lump sum will be taxable for the receiver.
	Knut Hundhammer og Elisabeth Vike Vardheim are in addition entitled to pension from the enterprise's defined benefit scheme from 67 years of age. Bente Monica Haaland is as of 1 January 2016 transferred to the enterprise's defined contribution scheme and related compensation plan.

No loans have been made or security provided for members of the Group Management or Board of Directors.

### Note 21 Other liabilities

Parent company/Group

	Asset retirement		
(Amounts in NOK million)	obligations	Other liabilites	Total
Liabilities at 1 January 2016	643	22	665
New or changed estimates	-23	-	-23
Amounts charged against liabilites	-93	-	-93
Reduction due to divestments	-54	-13	-67
Accretion expenses	39	-	39
Liabilities at 31 December 2016	512	9	521
Liabilities at 1 January 2017	512	9	521
New or changed estimates	115	23	138
Amounts charged against liabilites	-96	-	-96
Accretion expenses	15	-	15
Liabilities at 31 December 2017	546	32	578

There are no differences between parent company and group.

For expected timing of cash outflows, see note 15 Financial risk management.

See note 3 Accounting estimates and assumptions for an explanation of the most significant causes to uncertainty in the estimates.

### Note 22 Secured debt and guarantees

The parent company may not pledge the enterprise's assets or provide other security, apart from providing security to financial institutions in connection with day-to-day banking transactions, and providing the customary security as part of the day-to-day operations. For guarantees issued on behalf of subsidiaries, see the note on related parties for details.

### Note 23 Contingent assets

In 2014 Statnett sold its former head office at Husebyplatået in Oslo to Husebyplatået AS with a recorded gain of NOK 56 million. In 2016 Statnett sold Noreveien 26 with a recorded loss of NOK 39 million, to the same buyer. The settlement is not final, and is dependent on the utilisation of the property granted to Husebyplatået AS as part of the future construction permit.

Statnett estimates that the entity will receive payments of approximately NOK 800 million during the period 2021 – 2026 if the construction plans for Husebyplatået are realised. These expected payments are not recognized, and the estimates are uncertain.

### Note 24 Other operating costs

Parent co	mpany			Group
2016	2017	(Amounts in NOK million)	2017	2016
64	69	Lease rental payable	72	73
308	378	Contracted personnel/consultants/ purchase of services	431	369
82	97	Insurance	31	32
284	409	Materials and subcontractors	408	293
220	243	Property tax	248	222
120	136	IT costs	143	124
364	411	Miscellaneous	325	261
1,442	1,743	Total other operating costs	1,658	1,374

#### Operational lease agreements (maturity less than one year from balance sheet date)

Parent co	mpany			Group
2016	2017	(Amounts in NOK million)	2017	2016
34	40	Buildings	42	43
20	20	Contracted communication	20	20
10	9	Miscellaneous	10	10
64	69	Total lease rental payable	72	73

Operational lease agreements due later than one year from balance sheet date

The Group has entered into several minor lease agreements for buildings, communication and other operating equipment relating to ordinary onsite operations and implementation of projects. The leases vary from a few months to 15 years. Leases are paid and carried to expense in accordance with the terms of each contract.

#### Auditor's fee

Parent o	company			Group
2016	2017	(Amounts in NOK million)	2017	2016
897	1,131	Statutory audit	1,462	1,228
325	280	Other attestation services	362	351
205	63	Tax-related assistance	64	205
334	840	Other assistance	844	334
1,761	2,314	Total fees (excl. VAT)	2,732	2,118

## Note 25 Other comprehensive income

Parent company/Group (Amounts in NOK million) Carrying value 1.1.16	Fair value of held-for-sale investments 7	Fair value of cash flow hedges -166	Total Other compre- hensive income recorded in Other items -159	Estimate deviations of pension liabilities -70	Total Other compre- hensive income recorded in Other equity accrued -70	Total Other compre- hensive income -229
Changes	-	-23	-23	95	95	72
Tax effect	-	3	3	-24	-24	-21
Carrying value 31.12.16	7	-186	-179	1	1	-178
Carrying value 1.1.17	7	-186	-179	1	1	-178
Changes	-6	-110	-116	-293	-293	-409
Tax effect	-	23	23	67	67	90
Carrying value 31.12.17	1	-273	-272	-225	-225	-497

#### **Statnett**



Statsautoriserte revisorer Ernst & Young AS

Dronning Eufemias gate 6, NO-0191 Oslo Postboks 1156 Sentrum, NO-0107 Oslo Foretaksregisteret: NO 976 389 387 MVA Tif: +47 24 00 24 00

www.ey.no Medlemmer av Den norske revisorforening

#### INDEPENDENT AUDITOR'S REPORT

To the General Meeting of Statnett SF

#### Report on the audit of the financial statements

#### Opinion

We have audited the financial statements of Statnett SF, which comprise the financial statements for the parent company and the Group. The financial statements for the parent company and the Group comprise the balance sheet as at 31 December 2017, the statements of comprehensive income, the statements of cash flows and changes in equity for the year then ended and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the financial statements have been prepared in accordance with laws and regulations and present fairly, in all material respects, the financial position of the Company and the Group as at 31 December 2017 and their financial performance and cash flows for the year then ended in accordance with International Financial Reporting Standards as adopted by the EU.

#### Basis for opinion

We conducted our audit in accordance with laws, regulations, and auditing standards and practices generally accepted in Norway, including International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the Auditor's *responsibilities for the audit of the financial statements* section of our report. We are independent of the Company and the Group in accordance with the ethical requirements that are relevant to our audit of the financial statements in Norway, and we have fulfilled our ethical responsibilities as required by law and regulations. We have also complied with our other ethical obligations in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### Key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements for 2017. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.

We have fulfilled the responsibilities described in the Auditor's responsibilities for the audit of the financial statements section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the financial statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the financial statements.

#### Tangible fixed assets and plants under construction

As at 31 December 2017, the carrying value of tangible fixed assets were MNOK 35 653 for the Group and MNOK 35 335 for the Parent Company. The carrying value of plants under construction were MNOK 13 393 for the Group and MNOK 8 519 for the Parent Company. Total additions to plants under construction in 2017, including capitalized construction interest, amounted to MNOK 9 139 for the Group and MNOK 6 239 for the Parent Company. The considerations for determining the capitalization date and lifetime, and whether the criteria for capitalization had been met, require that management exercise judgment.

Statnett's revenues are regulated by the authorities represented by the Norwegian Water Resources and Energy Directorate (NVE), and the accounting of tangible fixed assets and construction projects



significantly impact the determination of the revenue cap. Due to the assets' size and inherent complexity, the degree of judgmental assessments and the effect on future revenue cap, this issue was considered a key audit matter.

We assessed the design of managements' internal controls related to capitalization and choice of depreciation method and tested whether they functioned effectively. We tested a sample of additions and considered the date for capitalization, estimated lifetime and whether the criteria for capitalization were met, by assessing whether the subsequent expenses were upgrades or maintenance, as some examples. We also reviewed a selection of project reports and project accounts against underlying documentation and discussed them with Statnett. We carried out analytical audit procedures, both of our own and by controlling analyses performed by Statnett.

The financial statements' notes 8 and 9 have additional information.

#### Hedge accounting

Statnett uses financial derivatives to reduce risk related to interest and foreign currencies. The fair value of these derivatives can fluctuate considerably in line with changes in market prices. Financial instruments hedging interest and foreign currencies are subject to complex accounting rules, and assessing the accounting treatment requires the use of judgment. The Company applies hedge accounting for cash flow hedges and fair value hedges. The complexity of the financing activities with related hedges, substantial amounts involved, complex accounting rules and degree of judgments make this a key audit matter.

We assessed the design of management's internal controls related to financial derivatives and hedge accounting, and tested whether they functioned effectively. Our audit procedures included tests of the existence and completeness of, as well as the terms for, the financial derivatives against third-party confirmations, consideration of valuation method and tests of valuation and hedging relations, in addition to assessing whether the hedging documentation was adequate and compliant with current accounting rules and regulations. We carried out analytical audit procedures and reviewed management's own analyses.

The financial statements' notes 10, 11 and 12 have additional information.

#### Other information

Other information consists of the information included in the Company's annual report other than the financial statements and our auditor's report thereon. The Board and Chief Executive Officer (management) is responsible for the other information. Our opinion on the 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 financial statements, our responsibility is to read the other information, and, in doing so, consider whether the other information is materially inconsistent with the 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 management for the financial statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with International Financial Reporting Standards as adopted by the EU, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Company'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 management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Independent auditor's report - Statnett SF



#### Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the 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 financial statements.

As part of an audit in accordance with law, regulations and generally accepted auditing principles in Norway, including ISAs, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- identify and assess the risks of material misstatement of the 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
  Company's internal control;
- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management;
- conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern;
- evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the 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 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 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

### Opinion on the Board of Directors' report and on the statement on corporate social responsibility

Based on our audit of the financial statements as described above, it is our opinion that the information presented in the Board of Directors' report and in the statement on corporate social responsibility concerning the financial statements, the going concern assumption and proposal for the allocation of the result is consistent with the financial statements and complies with the law and regulations.

#### Opinion on registration and documentation

Based on our audit of the financial statements as described above, and control procedures we have considered necessary in accordance with the International Standard on Assurance Engagements (ISAE) 3000, *Assurance Engagements Other than* Audits or *Reviews of Historical Financial Information*, it is our opinion that management has fulfilled its duty to ensure that the Company's accounting information is properly recorded and documented as required by law and bookkeeping standards and practices accepted in Norway.

Oslo, 12 April 2018 ERNST & YOUNG AS

Finn Espen Sellæg State Authorised Public Accountant (Norway)

(This translation from Norwegian has been made for information purposes only.)

Independent auditor's report - Statnett SF

4

# Corporate social responsibility

Statnett's mission is to ensure a stable and secure supply of electricity, contribute to value creation in society through an efficient and well-functioning power system and facilitate the use of electricity as a means for Norway to realise its climate objectives. The mission shall be fulfilled in a responsible manner and in the best interests of society. This means the integration of social and environmental considerations into the Group's development and operational activities in a way that exceeds statutory requirements.

At Statnett, corporate social responsibility (CSR) is about understanding and relating to social expectations in a way that generates mutual trust and respect. In this manner CSR will contribute to Statnett's influence and implementation capabilities, and by this strengthen the ability to follow through on Statnett's primary objectives.

#### Managing corporate social responsibility

Statnett is a state enterprise owned by the Norwegian state through the Ministry of Petroleum and Energy, and has a group organization. State-owned enterprises must work systematically and be at the forefront of CSR as well as environmental and climate work. Statnett generates positive results based on the Group's ethical standard.

The Board has overarching responsibility for Statnett's CSR. The Board has established a management policy founded on principles designed to ensure the success of Statnett's CSR work. Furthermore, the Board is responsible for ensuring that CSR is integrated into Statnett's strategy and objectives, in addition to being a key part of Statnett's performance review and follow-up processes. Statnett's CEO regularly informs the Board of matters relating to financial, environmental and social issues. HSE performance reports are prepared quarterly and Statnett includes environmental performance and compliance reports in the annual report.

The CEO is responsible for ensuring that Statnett's CSR framework is updated and integrated into corporate governance. All levels of management are responsible for familiarising the organisation with CSR principles and frameworks and for ensuring compliance. Statnett integrates CSR by setting objectives for the company and through quarterly internal performance reviews. Both Group management and Statnett's Board approve Statnett's annual CSR report and ensure that all important topics are included in the report.

All employees in Statnett are responsible for familiarising themselves with Statnett's management system and Code of Conduct. In addition, they must comply with relevant principles and requirements in their daily work.

#### About the report

Statnett reports on CSR in accordance with the guidelines published by the Global Reporting Initiative (GRI). In addition Statnett reports on the relevant indicators for the energy industry (GRI Sustainability Reporting Guidelines & Electric Utility Sector Disclosures). Statnett believes that its CSR reporting is essentially consistent with GRI's reporting principles and that reports comply with the "Core" level in version G4 of the GRI Guidelines. The GRI table provides references to where information about the various GRI indicators can be found in the annual report and any omissions. Indicators that begin with "EU" are specific to the energy industry.

Statnett believes that its CSR reporting activities fulfil the requirements set out in the expanded text of Section 3-3(c) of the Norwegian Accounting Act, adopted in 2013. Statnett's CSR report covers all of Statnett's business activities, including wholly owned subsidiaries and partly owned entities where Statnett has a controlling interest. Statnett gathers and collates data with a view to creating a uniform presentation of relevant CSR information. While it is placed great emphasis on ensuring that all information is complete and correct, there may still be some uncertainty associated with some of the data.

#### Materiality matrix

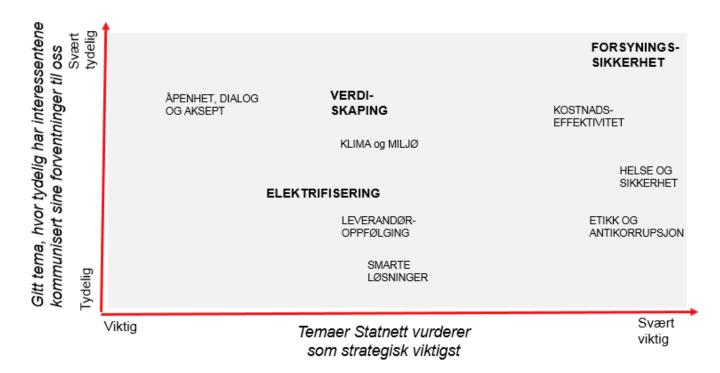
In June 2017, Statnett adopted an updated Group strategy for the period 2017–2021. As part of the strategy process, Statnett carried out a materiality analysis. The object of the materiality analysis is to define the factors that Statnett considers to be the most important today and which society considers important focus areas for Statnett. The analysis is based on an overall assessment of stakeholders based on the results of Statnett's customer survey and dialogue in general. The materiality matrix below presents the results of the analysis and includes only those issues deemed most important.

The matrix contains mostly the same priority areas as in the previous report. The distinction between what Statnett is doing to help achieve Norway's climate objectives where "electrification" is the focus area and the impact of the company's activities on the climate ("climate and environment") have been clarified. This is in line with

expectations set out in the White Paper on state-ownership policy. There is an increased attention to smart and cost effective solutions. The magnitude of the construction activities demands close attention by Statnett to the compliance of contracts and work standards by contractors. Furthermore, it is important for a company that manages public funds and does considerable investments that there is transparency regarding how business is conducted and the application of those funds.

#### Stakeholders

Statnett has a number of stakeholders throughout Norway and in Europe. The stakeholders range from the Norwegian Parliament and the Norwegian Government to all the endusers of Statnett's services in local communities, as well as public bodies and councils in the Nordic region and the EU. The overview on the following page addresses the most important groups of stakeholders.



Statnett's stakeholders	Explanation	Interests	Involvement
The Storting	The Norwegian Parliament, i.e. the Government and the opposition parties	Legislative body	Statnett attends meetings when invited and invites the Standing Committee on Energy and the Environment for information meetings
Sametinget	The parties and leadership of Sametinget	The High North, interests concerning reindeer and nature conservation	Closely involved in licensing processes involving Sami areas and especially reindeer husbandry
Authorities	Ministry of Petroleum and Energy (MPE), Norwegian Water Resources and Energy Directorate (NVE)	The MPE is the owner, the NVE and the MPE make decisions on licences and other complaints	Owner meeting and owner follow-up (MPE), all licensing processes involve the NVE and the MPE is the appeals body
Customers	Producers, distribution system operators and industry	Producers are concerned with available capacity and market solutions, the distribution system operators are concerned with security of supply in their area and industry is concerned with good security of supply at the lowest cost	All of these are involved regularly through the Market and Operations Forum, regional customer meetings, individual customer meetings, and in licensing processes
Local authorities	Municipal and county authorities	The municipalities are concerned with how Statnett influence local conditions and how Statnett relates to municipal plans, as well as local value creation and property taxes. The counties have environmental responsibility	Involved in a consultative capacity in all licensing processes and the development of environmental and transport plans for the various projects
Organisations	Trade organisations, The Norwegian Confederation of Trade Unions (LO), The Confederation of Norwegian Enterprise (NHO), etc.	These organisations focus on different special interests	These organisations normally participate in consultative hearings on licensing and the industry organisations are also members of the Market and Operations Forum
International stakeholders	E.g. The EU, Nordic TSOs, the Nordic Council, ENTSO-E, European TSOs		Statnett has formal roles and cooperates with Nordic and European TSOs and answers enquiries and delivers the Nordic Grid Development Plan to the Nordic Council
Trading companies and power exchanges	Nord Pool, EPEX SPOT and various trading companies	The trading companies and power exchanges are concerned with well- functioning markets	There is regular contact in connection with the development of new market solutions
Environmental and climate organisations	NGOs that focus on the climate and the environment	Regard the environment and climate as key issues and are concerned with the electrification of society	Involved in a consultative capacity in all licensing processes. Annual contact meetings are also held
Suppliers	All who supply goods and services to Statnett	Are concerned with the project portfolio, future market opportunities and wish to see high activity levels. HSE and supplier partnerships are also key	Involved through prequalification processes and tender processes in the projects. Followed up through deliveries and contracts
Academic and research communities	Universities and other research communities	Have an interest in R&D and the development of new technology, as well as commissioned research	Contact through various research programmes, R&D work and through consultancy services paid for by Statnett
Media	Trade journals, national media, local media	Have the public interest in focus and expect good and objective information from Statnett	The Freedom of Information Act and open government are central to the involvement of the media. Followed up on an ongoing basis by a media relations contact
Landowners	Landowners directly affected by Statnett's construction work and facilities	Have interests as landowners. Also interested in how Statnetts projects affect them	It is natural to involve them in a consultative capacity in licensing processes and they are closely involved in the development of projects and when selecting power line routes
The general population	All residents of Norway	Interested in good security of supply and lowest possible tariffs	Involved through local public meetings in relation to projects and kept informed on an ongoing basis through Statnett's various communication channels
Own employees	Managers and employees at Statnett	Are closely involved in Statnett on a day- to-day basis and are concerned with Statnett as an employer and social actor	Involved through internal communications, internal meetings and communication from management

### Security of supply

As the TSO in the Norwegian power system, Statnett has the principal responsibility for security of supply in Norway. Security of supply describes the power system's ability to continuously supply end-users with electrical power of a specified quality and includes energy security, operational reliability, reliability of supply and voltage quality. Statnett must be prepared to deal with various faults and errors, in addition to ensuring that facilities are properly designed and maintained and that the ICT infrastructure is secure.

#### System responsibility

Statnett shall ensure security of supply through among other things balancing production and consumption at all times, ensuring that the voltage is correct and that there is a low frequency of interruptions due to transmission grid conditions, and that there are sufficient reserves.

#### Statnett's approach

The frequency is determined by the instantaneous balance between production and consumption, and is an important indicator of the state of the entire power system. In the Nordic power system, Statnett and Svenska Kraftnät have the main responsibility for keeping the frequency within normal values. At the same time each country has requirements for how much automatic and manual reserves must be available to deal with imbalances. In order to improve frequency quality Statnett works on developing tools to deal with imbalances and the further development of market solutions for reserves.

Statnett monitors the voltage quality of the power system according to the "Regulation relating to the quality of supply in the Norwegian power system", and can show satisfactory margins in most places relative to the threshold values specified in the regulation. Developing the power system to be more closely integrated with other countries and more new stakeholders and new demands concerning both production and consumption represents a challenge in terms of controlling the operating voltage. Statnett works continuously to develop solutions to ensure adequate voltage quality. Reliability of supply (the availability of electric power to end-users) is affected by weather conditions such as snow/ice and lightning. Statnett wind. works systematically to detect and improve exposed power station components and wiring to avoid errors and ensure that the impact is as small as possible in the event of a fault. This is achieved through systematic maintenance, analysing faults and subsequent improvement work, such as standardisation and quality assurance of assets, targeted reinvestment in ageing facilities and preventive maintenance. Close cooperation with industry players contributes to increased security of supply by reducing the number of failures at industrial plants and power plants following operational interruptions in the grid.

Statnett performs improvement work based on analyses of individual events and statistics, as well as based on data from strategically placed measuring instruments. Digitalisation and relevant R&D projects will contribute to increased security of supply in the long term.

#### Results

Following a downward trend from 2011, the number of minutes with frequency variances beyond threshold values has been higher in the last two years. The reasons for this are complex, but are associated with a higher proportion of unregulated production, greater exchange between countries and higher utilisation of the system, which provides less flexibility to deal with imbalances. Compared with 2016, more secondary reserves were available in 2017. This is one of the reasons why the number of minutes with frequency variances beyond threshold values fell in 2017.

Voltage quality is still good in most of Statnett's facilities. For many years, there have been challenges of varying degrees relating to flickering in Nordland, and in some recent years, with resonance in the SKL ring (Sunnhordland). Both of these conditions are currently being corrected.

Reliability of supply in the power system has improved in recent years, measured by a reduced amount of nondelivered energy and a reduced number of operational disturbances.

	Unit	2017	2016	2015	2014
Frequency variances	Minutes	12,018	13,647	10,616	10,232
Non-Delivered Energy (NDE)	MWh	772	823	1,279	1,232

#### Security and emergency preparedness

Statnett's security and emergency preparedness plans shall prevent extraordinary unwanted incidents from causing supply failure. However, in the event of a supply failure, the company's emergency preparedness plans shall ensure that public supply is quickly returned.

#### Statnett's approach

The company conducts systematic improvement work. Statnett analyses vulnerabilities, threats and risks, implements preventive measures, plans and organises resources to handle incidents and conducts drills. Also evaluations are emphasized for the purpose of learning.

Statnett's activities relating to security and emergency preparedness planning are regulated by the Norwegian Energy Act's Regulations relating to Preventive Security and Preparedness in the Energy Supply. Statnett has a systematic approach to the requirements that provides the basis for compliance. The Norwegian Water Resources and Energy Directorate (NVE) oversees the company's compliance. Since 2009, NVE has carried out 30 inspections.

#### Future ambitions and objectives

Statnett considers it important to handle security and emergency preparedness such that these are in line with society's expectations, with a view to meeting challanging risks, caused by among other things increased digitalisation. Statnett has a strong focus on digital security, including the establishment of dedicated functions for the prevention, monitoring and management of digital threats. At the same time, Statnett attaches importance to its ability to deliver power in the event of the loss of critical digital services.

### **Digital security**

Statnett uses a variety of critical information systems and must deal with an ever more complex digital environment. This makes it critical for Statnett to have robust digital security systems to safeguard operations, digital assets, personnel and Statnett's reputation. Digital security is increasingly being challenged by a variety of forces in general and threat actors in particular; Statnett must take this into account when conducting business.

#### Statnett's approach

Statnett is working in a goal-oriented manner on measures in four areas: anticipation, detection, prevention and responding. Statnett's security barriers

are continuously improving and new ones are established to adapt to changes in the risk situation.

Statnett is a co-owner and co-founder of KraftCERT, the power industry's joint competence centre whose responsibilities include incident handling. To ensure that Statnett focuses on a proper level of security, the company must have knowledge of potential threat actors. This is done by increasing the effort mapping threats, both internally and in cooperation with external partners.

#### Future ambitions and objectives

Statnett will make further investments to ensure a proper focus on managing digital risk. This means continuing the company's work on mapping, valuation and classification of digital assets, as well as identifying and managing vulnerabilities. Furthermore, Statnett will boost the company's knowledge of digital threats in collaboration with relevant actors.

Increased digitalisation is an important part of Statnett's strategy, and implementing new technology brings with it new vulnerabilities that can have a negative impact on risk. This means that the work on digital security must be continuous, systematic, structured and be subject to sound management.

### Value creation

Statnett's business creates value for society both directly and indirectly. Direct value creation is shown in the Group's financial statements and distributed to the owner, authorities, employees and lenders as shown in the table on the following page. Indirect value creation takes place through Statnett's expansion of the power grid and facilitates the production, transport and consumption of power, all of which underpin the value creation of manufacturers, consumers and suppliers.

Statnett shall operate and develop the transmission grid in a cost-efficient manner and ensure that all development is in the best interest of society. Statnett contributes to value creation by providing well-run and efficient market-based solutions, and by facilitating power trading. Trade with foreign enterprises creates value through congestion revenues.

Furthermore, Statnett facilitates value creation by ensuring that there is sufficient capacity and security of supply in the power system, so that business in relation to power generation and power-intensive industry can be maintained and further developed.

On the market side, there is continuous development in facilitating balancing in the Nordic countries and markets with a finer time resolution. This work contributes to improved operations and increased automation in the markets, which largely revolve around smart solutions for an efficient power system.

In 2014, Statnett received an equity injection of NOK 3.25 billion, with the aim of securing a minimum 25 per cent equity ratio at the end of 2017. Following the injection, the company's equity is adapted to the Group's business and risk profile during the period. Linked to this decision, no dividend was paid for 2013, and dividends for the financial years 2014–2016 equated to 25 per cent of the established basis. For the 2017 financial year, dividends are set at 25 per cent in line with the Government's proposal in the 2017 state budget to maintain a 25 per cent dividend for another two years. Proposed dividend for the 2017 financial year is NOK 326 million.

### Electrification

A key element of Statnett's mission is to facilitate climatefriendly solutions and to help Norway achieve its climate objectives. The company's main contribution is to facilitate the electrification and decarbonisation of Norway, and Europe through cable connections. This is a focus area internally, among NGOs and for Statnett's owner.

This will be taken into account during planning process when Statnett assesses new projects.

The degree of success is difficult to measure directly. However, Statnett will have an idea that the company is making the right decisions if Norway can continue to decarbonise while maintaining security of supply at today's level and facilitating further value creation.

The most important projects in this context are international connections to the UK and Germany, and the Vestre korridor, which will facilitate these international connections, and increased production of renewable energy in Norway. One example of the latter is the ongoing grid development to receive wind power at Fosen. The electrification of the Norwegian continental shelf will also help Statnett to achieve such an objective, in the same way as facilitating carbon-free transport. In its current form, the transmission grid will be able to handle the future full electrification of all Norwegian vehicles.

### Cost efficiency

Statnett is responsible for operating and developing the transmission grid in the best interests of society. Statnett shall follow business principles in all other respects, and emphasise commercially profitable decisions that ensure high cost efficiency.

Efficient resource utilisation and cost-effectiveness are central to the financial regulatory system Statnett is subject to. Tariffs to end-users will be limited, through efficient operation and development.

#### Statnett's approach

Statnett has an extensive efficiency programme and a target of achieving a 15 per cent increase in efficiency from 2013 to 2018. The target includes all activities of the company meaning more efficient operation of existing facilities, development projects and support functions.

A process-oriented management system ensures interaction between different disciplines and clarity concerning roles and responsibilities and is an important foundation for efficient operation. Furthermore, Statnett is actively working to ensure that new technologies are phased into both development projects and operations. There is established a roadmap for technology with a view to ensuring implementation trough the various development projects in Statnett's project portfolio. This is expected to contribute to considerable savings in construction costs. The work on procurement has become more targeted and professionalised, and Statnett works systematically on improvements related to more cost efficient projects. The operations division can, due to internal improvements, a strong focus on asset management and efficient maintenance, show results of significant cost reductions compared to the total number

Distribution of value creation	Unit	2017	2016	2015	2014
Employees – Salary and social benefits <sup>1)</sup>	MNOK	1,521	1,364	1,011	1,141
State and municipal taxes and fees 2)	MNOK	620	548	707	613
Interest expenses	MNOK	616	527	514	527
Owner – dividends 3)	MNOK	326	350	357	321
The company – Retained equity	MNOK	402	264	940	98

<sup>1)</sup> Payroll costs (excl. employer's national insurance contributions).

<sup>2)</sup> Tax expense, property tax and employer's national insurance contributions.

<sup>3)</sup> Proposed dividends for 2017.

of assets. Comparing costs to the total number of assets has become a central factor in the work on improvements and is used for comparisons and learning across different divisions in the Statnett. Furthermore there is an increased focus on a number of cost elements, and the work on improvements done by the support functions have given important contributions to a more efficient company.

#### Future ambitions and goals

It is expected that the efficiency programme will achieve the target by the end of 2018, which is the last year of the programme. The programme will be followed by new targets, which will include more comparisons with other companies and a target in relation to levelling out tariffs. This is in order to increase the relevance to the comparisons with European TSOs that underlie how NVE determines Statnett's efficiency score in the regulatory system. It will also help to ensure that the overall power system remains competitive in relation to alternative energy solutions, in particular for general consumption.

#### Results

The "15 per cent programme" contributes to a continuous focus on costs and effectiveness in implementing initiatives, ongoing measurements and management follow-up. This work has generated significant savings and indicators show substantial improvement over the period of the programme. It is expected to produce a positive accumulated effect on tariffs of around NOK five billion over the decade 2016–2025.

### **Smart solutions**

Statnett wants to develop and use smart solutions regarding both new technologies and new collaboration methods in Norway and in the Nordic region.

There is an expectation that Statnett as the TSO is a driving force for the development of new solutions and technologies of relevance to the industry. The Nordic power grid is increasingly integrated, and Statnett is actively pursuing common solutions with the other Nordic TSOs.

In 2017 Statnett led the Nordic R&D-collaboration between Statnett, Fingrid, Svenska kraftnät, Energinet and Landsnet. The R&D division at Statnett is also a member of European Network of Transmission System Operators' Research, Development and Innovation Committee (ENTSOE-RDIC) where among other things new EU-projects are planned, discussed and followed up.

#### Innovation and technology development

The main purpose of the focus on research and development in the energy area is to contribute to increased value creation, and safe, cost-effective and sustainable utilisation of Norwegian energy resources.

Statnett has allocated the R&D activities to three programmes, which are due to run until the end of 2019 (see table next page). The programmes are led by a Programme Board which reports to the R&D Director. Many projects make extensive use of digitalisation, from robot development to machine learning, and many also contribute to increased HSE activities. See www.statnett.no for a more detailed overview of the results.

#### Statnett's approach

By facilitating smart solutions in all area of the business, Statnett wishes to help to raise the quality and reduce the cost of the company's deliverables.

Statnett's project model requires all new technology to be evaluated before making an investment decision. There is prepared a technology roadmap identifying projects for which the new technology is relevant, as well as the benefits to be derived. Group management has overarching responsibility for the technology roadmap. Another measure is implementation of a hybrid organisation giving employees temporary part time positions in R&D projects.

Statnett not only strives to identify smart solutions, but also to ensure that new solutions are used. To achieve this Statnett's expertise resource pools participate in R&D projects. For instance, Statnett's R&D organisation and various disciplines collaborate closely on technology qualification for relevant projects.

One way to achieve this is through the company's R&D Proposals Portal. In 2017 there was put forward 179 project proposals from internal and external contributors.

#### Results

Statnett's R&D initiatives have generated savings estimated at more than NOK 8.5 billion over the last twenty years. This figure is based on the estimated savings on concluded projects. At the end of 2017, Statnett had 86 ongoing R&D projects.

#### Digitalisation

Extensive technological developments, coupled with major changes in the power system, are generating both an increased need and new opportunities for smart, digital solutions. Statnett's digitalisation initiatives focus on both interaction with other organisations, as well as internal simplifications and improvements.

#### Statnett's approach

Statnett aims to be a clear leader in the use of digital technology. Statnett has a high innovation rate, in particular in system operation, market operations and facility management and works closely with the rest of the industry in this context. The establishment of Elhub is an important efficiency-improvement and digitalisation project for the whole sector. The solution will collate and process consumption data from almost three million consumers and producers on a daily basis when launched in 2019.

Another key driver is increased Nordic harmonisation, which will pave the way for joint Nordic solutions. In January 2015, the system operators in Denmark, Finland, Norway and Sweden agreed on a model for future balancing of the power system (MACE), and have entered into an collaboration agreement on balancing principles. The agreement also regulates roles in the balancing process and use of the Norwegian-Swedish IT company Fifty to develop shared IT solutions. The agreement ensures implementation of European roles and facilitates the phasing-in of more renewable production.

Digitalisation will contribute to improving cost-efficiency through the improvement of commercial processes. There is established a Data Science unit which will facilitate better analyses and decision-making support. Statnett is also developing a solution to improve the efficiency and the quality of collection and sharing of information about infrastructure data in the facility database Fosweb.

#### Future ambitions and objectives

Elhub is intended to ensure safe and efficient handling of meter data from smart electricity meters (AMS) that are due to be installed at all electricity customers by 2019. The annual socio-economic savings are estimated at NOK 200 million.

DIGITALNORWAY - Toppindustrisenteret AS was established in 2017 as a business initiative to digitalise Norwegian industry. The purpose of the initiative is to

GARPUR and development of tools for probabilistic delivery reliability	Long-standing European research project that was concluded in 2017, whose results include the establishment of a socio-economic framework to assess various reliability criteria. New analysis methods based on larger and higher-quality data volumes make it possible to plan grid development more accurately than is possible using current methods.
Alternatives to expanding the power grid	Joint project with Enova examining the entire spectrum of potential measures to cover customers' needs other than grid construction. The results reveal major potential for reducing maximum consumption in conurbations, in particular in commercial buildings.
Innovative technology	
Alumast	New-design aluminium tower weighing five tonnes – six tonnes lighter than a similar steel tower. This makes it possible to reduce the number of helicopter trips per tower for installations, resulting in environmental gains and lower HSE risk. Initial testing of the tower was carried out in November.
R&D Digital Station	In 2017, Statnett worked closely with various suppliers on its Digital Station R&D project. The purpose of the project is to design the next generation of control facilities. In September, the R&D Digital station was installed in a Statnett substation, tested and connected to the facility.
Smart grids	
SPANDEx (Synchrophasor/PMU Application Integration and Data Exchange)	This project is examining the potential benefits for operating centres of obtaining data from Phasor Measurement Units, a new type of meter with 500 times better resolution than the current system. In 2017, the project configured the PhasorPoint PMU tool and installed PMUs in four new substations to test an application for voltage stability.
IMPALA (Imbalance Predictions with Machine Learning)	Statnett is using IMPALA to research how machine learning can be used to predict imbalances between consumption and production in the power system. Last year the project constructed a prototype that utilises external data such as weather, prices and historical imbalances to determine how imbalances will develop, with highly promising results.

#### Sustainable system development

construct, link and spread digital skills among companies and industries throughout Norway, and to drive digitalisation projects. Statnett is one of 15 owners of the non-profit limited company and plays an active role in further developing this network.

#### Competence

Statnett's employees have dynamic career paths. The company's workforce requires new skills to introduce new technologies safely and efficiently, to utilise new systems and to leverage gains from standardised work processes.

#### Statnett's approach

The most important way employees learn is to perform new tasks, participate in projects or to change roles internally. Statnett also provides an extensive internal training offering through its Project Academy, HSE activities and a broad portfolio of manager development measures.

The company has adopted a fixed template for skills development for many years, and attach importance to ensuring dialogue between employees and managers about the company's needs and employees' wishes regarding future career paths. Over the last two years, Statnett has established career paths for individual disciplines, projects, first line and manager careers with competence requirements for position levels. This helps to establish more specific skills-development plans for individual employees.

In January 2018, Statnett launched the Competence Portal to collate these measures. The Portal demonstrates how new and powerful HR technology can help to ensure that competence requirements for a wide range of roles moving forward are met. The focus on competence systems is of particular value to the operations part of the organisation. Monitoring of statutory HSE training will help make Statnett a safe place to work. The Competence Portal is constantly developed.

The company wishes to develop managers within the organisation, and in recent years all managers have participated in a joint management development programme. The annual organisation survey as before showed Statnett to be a forward-looking organisation with highly engaged employees. Support from managers and openness about improvement areas, along with employees' ability to both influence and acquire the necessary skills to perform their work all scored highly in

the survey. At the same time, employees also expressed a wish to be more involved in discussions about the competence and development requirements for different teams moving forward.

#### Future ambitions and objectives

In the coming years Statnett expects to face changes gradually. Resources used for construction projects will be reduced. Digitalisation will enable utilisation of better decision-making data and automation of processes. Generally there is an expectation of even more efficient ways of working. Several divisions have already commenced work to clarify the future direction of development of competencies. Use of the Competence Portal will facilitate ongoing knowledge development.

#### Results

In 2017, only 32 employees decided to leave Statnett, which equates to a staff turnover rate of 2.4 per cent. A further 100 employees relocated to another area of the company, while 75 per cent of all managers were appointed internally.

### Health and safety

Statnett has an ambitious goal of being a leader within HSE and contributing to positive HSE development in the power industry. Statnett's activities entail a risk, and Statnett must have full control of this risk in the respective roles as employer, construction client and asset owner. The paragraph Climate and the Environment covers the environment.

#### Statnett's approach

Statnett takes a systematic approach to HSE management and strives to promote a proactive HSE culture. The focus is on how HSE is integrated into the decision-making phases, clear roles and responsibilities, good reporting procedures, and systematising learning from incidents. The HSE culture shall be characterised by continuous learning and improvement through among other measures sharing best practices both internally and externally.

In 2014 two HSE rewards, one internal and one external, was instituted to shed a light on and recognize good performance. In 2017 the external reward was given to the Norwegian contractor Consto for their HSE work on a contract in one of Statnett's projects.

Statnett's ongoing "Safe Programme" is an initiative that strengthens the company's internal HSE culture and

involves all employees. The object is to establish a common safety culture and a common understanding of objectives, responsibilities and consequences, based on the individual's behaviour and clear leadership. The safety programme continued into 2016 and 2017 and is due to be completed in its current form in 2018.

Statnett endeavours to identify technical solutions and measures that will reduce the likelihood of accidents during work operations and on construction sites. One example of this approach is robotic installation of aircraft warning spheres to reduce the risk to personnel during installation work, an initiative started in 2017.

The HSE Action Plan, launched in 2016, is a strategic initiative to prevent serious HSE incidents, in particular relating to the project portfolio. Statnett made a number of specific improvements to the HSE Action Plan in 2017, and will continue implementation measures to ensure full compliance across the organisation in 2018. The HSE Action Plan includes a set of specific improvement areas. One important result of the work was clarification of the role of construction client. The focus on HSE is strengthened in the early phase of projects through holistic risk management of HSE during project planning. Statnett has also adopted nine life-saving rules applicable to all work performed at and for Statnett. Everyone is expected to comply with these rules, and thus help to strengthen the HSE culture. The process for qualifying suppliers for project contracts is improved, contract monitoring is reinforced and HSE requirements stated in contracts are simplified and clarified. Statnett has also aligned the scope and rate of construction activities to available resources following a review of the Group's capacity and project portfolio.

To secure a broader overview and more proactive measurement of HSE conditions, in 2017 Statnett introduced a new indicator, Serious Incident Frequency (SIF). The SIF indicator provides important information about where the Group should direct the HSE initiatives (risk-based prioritisation) in order to prevent incidents occurring. It also states the frequency of incidents with serious consequences or the potential for such.

In 2017, the measurement principles for LTIF<sup>1</sup>, TRIF<sup>2</sup> and SIF<sup>3</sup> were changed. A percentage reduction measures the effectiveness and improvement potential of HSE work. This type of measurement reflects the dynamic nature of HSE-related issues and shows that HSE results are a product of the measures implemented. Figures are followed up monthly, while percentage

changes are measured quarterly. In accordance with Energi Norge's targets, Statnett aims to achieve an annual reduction of 15 per cent in lost-time injuries and serious incidents.

Statnett keeps constantly up to date with research into the potential health effects of electromagnetic fields from high-voltage lines. See the section on Climate and the Environment for more information on electromagnetic fields.

#### Future ambitions and targets

Statnett will further enhance the company's HSE culture moving forward. Simplification and further development of systematic HSE initiatives, together with digitalisation of tools and systems, will play a key role in this context. In 2017, Statnett launched a project to improve the internal controls for handling chemicals. This involves establishing guidelines, training, and a new system for electronic records of substances and products. Planned activities, among others to perform more analyses of trends in Statnett's areas of work operations, and more detailed investigations will help to identify the causes of accidents. Statnett communicates these results and training measures both internally and with the rest of the industry.

#### Results

Statnett aims to achieve an expected 15 per cent longterm reduction in annual incident frequency for H1, H2 and SIF. The Group achieved this target for H1 and SIF in 2017, with year-on-year reductions of respectively 36 per cent and 55 per cent. However, the H2 indicator improved by a smaller percentage, and there will be prepared measures to address this in 2018. There were no third-party injuries or fatalities in 2017.

	Target 2018	2017	2016	2015	2014
Absence due to illness (%)					
Short-term, 1–16 days		2.0	1.5	1.6	1.3
Long-term (>16 days)		1.4	1.7	1.7	1.8
Women		5.4	4.8	5.1	4.6
Men		2.8	2.7	2.7	2.7
Total	3.0	3.4	3.2	3.3	3.1

Serious Incident Frequency (SIF)	SIF value	Number	SIF value	Number	SIF value	Number	SIF value	Number	SIF value
Total	5.1	33	5.9	65	13	85	19	83	20
Lost-time injuries (LTIF)	LTIF value	Number of injuries	LTIF value	Number of injuries	LTIF value	Number of injuries	LTIF value	Number of injuries	LTIF value
Internal		4	1.6	9	3.6	11	4.9	4	1.9
External		16	5.3	19	7.6	17	7.9	15	6.8
Total	3.1	20	3.6	28	5.6	28	6.4	19	4.4

Injuries (TRIF)	TRIF value	Number of injuries	TRIF value	Number of injuries	TRIF value	Number of injuries	TRIF value	Number of injuries	TRIF value
Internal		9	3.5	18	7.1	15	6.7	6	2.9
External		46	15.0	36	14.5	42	19.4	26	11.8
Total	8.3	55	9.7	54	10.8	57	12.9	32	7.5
Total fatalities	0	0		2	2	0		0	1
Lost day rate (LDR)	LDR value	Number of lost days	LDR value	Number of lost days	LDR value	Number of lost days	LDR value	Number of lost	LDR value

Lost day rate (LDR)	LDR value	of lost days	value							
Internal		92	36.0	95	38.0	141	63.0	331	161.0	
External		426	140.0	423	170.0	234	108.0	209	95.0	
Total	78.2	518	92.0	518	103.0	375	85.0	540	127.0	

Total recordable injuries (TRIF) and lost-time injuries (LTIF) are not differentiated by gender or region. The lost-time injuries frequency (LTIF) shows the frequency of work-related lost-time injuries per million working hours. The total recordable injury frequency (TRIF) shows the total number of work-related injuries per million working hours. The serious incident frequency (SIF) indicator captures the most serious incidents/conditions involving injuries, near misses, environmental harm and recorded hazardous conditions per million working hours relating to electrical safety and working at height. Absence days are defined as lost working days in relation to the total number of work related or the first day after the work injury occurred. Lost day rate shows the absence rate or the frequency of absence due to the work injury per million hours worked. A fatal accident is considered as 365 days absence, two fatal accidents from 2016 have been added to the F-value, which gives high values in 2017.

1) Frequency of work-related lost-time injuries per million hours worked.

2) Frequency of the total number of work-related injuries with or without absence per million hours worked.

3) Frequency of the number of actual and potential unintentional serious incidents per million hours worked

### Climate and the Environment

Statnett shall be an environmentally responsible constructor and owner of the transmission grid. Continually striving to minimise the climate and environmental footprint from the Group's operations is a key element of Statnett's corporate social responsibility remit.

Statnett shall also play a leading role in ensuring that the Norwegian and Northern European power system becomes more climate-friendly moving forward. This will be achieved by constructing and operating infrastructure that helps to boost the share of renewable energy and through technology and market development. It is also important that Statnett maintains biodiversity and other local and national environmental values to the greatest extent possible when developing the power system.

Instructions for Statnett's work on the climate and the environment are established in the White Paper on stateownership policy. This is incorporated into the Group strategy for the period 2017–2021 through the ambition to spearhead developments in climate and environmental work.

#### Environmental impact of Statnett's operations

**Environmental topic** 

Statnett accords the climate and the environment the same importance as technical and financial

Targets

considerations in internal decision-making. Statnett's environmental policy is part of the internal policies for corporate social responsibility and HSE, and describes how climate and environmental policies should be upheld. Statnett adopts a number of environmental targets, the most important of which relate to impact on the climate, landscape and biodiversity (see Environmental topic table).

Group management has overarching responsibility for the environment. Managers at all levels are responsible for environmental issues within their own unit. Statnett systematically develops preventive environmental measures to reduce the risk of serious incidents – from initial planning of facilities, through the construction phase, to the operating phase.

Environmental experts contribute to both the planning and construction phase of major construction projects. Statnett assesses the impacts of the various solutions during the early planning phase, when selecting concepts and technical solutions, based on scope and degree of severity. During the licensing process, there is established requirements for detailed investigation of the scope and consequences for nature and biodiversity. This includes studies of habitat types and species distribution. Statnett always seeks to identify solutions that provide a best possible aesthetic fit with the environment.

Climate	Enable Norway to achieve its climate targets.
	Minimise the climate-related footprint from our own operations.
Landscape and non- encroachment on nature areas	Identify solutions that provide a good aesthetic fit with the environment and avoid encroaching on unspoiled nature.
Biodiversity	Identify solutions that do not involve encroachment on protected areas and that safeguard important areas for wildlife, with a particular focus on endangered species.
Cultural heritage sites	Identify solutions that safeguard cultural heritage sites and the cultural landscape.
	Comply with the authorities' principle of prudence in relation to electromagnetic fields and health.
Homes, exposure and electromagnetic fields	Review solutions where the average magnetic field over the year from new facilities is kept below 0.4 $\mu$ T (microtesla) when constructing permanent dwellings.
Outdoor recreation	Identify solutions that safeguard outdoor recreation.
	Transmission facilities should be designed and constructed to minimise emissions to the environment as a result of production, operations, maintenance/restoration, fault situations and decommissioning.
Pollution, noise and waste	Help ensure that new power lines and substations are designed so that they consider the impact of noise on the environment.
	Reduce waste volumes, by selecting appropriate materials, optimal maintenance to extend service lives and considering upgrades before demolition and new construction.

Consideration of affected local parties is incorporated into environmental management in construction projects. Environmental considerations and preventive measures during the construction and operating phase are described in a separate Environment, Transport and Construction Plan (ETCP) for major projects. These could, for example, involve measures to safeguard soft road users, cultural heritage sites and vulnerable nature areas. Licence applications and the ETCP are prepared by environmental experts in accordance with the procedures in Statnett's management system. The Norwegian Water Resources and Energy Directorate (NVE) follows up requirements in both licences and ETCP plans, in part through monitoring during the construction phase and after completion.

Statnett's target is to experience zero major emissions or environmental harm. Environmental incidents are registered in project reporting to project owners and in HSE reporting to Group management. Five incidents of major environmental harm were registered in 2017 – two cases of SF<sub>6</sub> emissions and three cases of significant damage to the ground. These types of incidents must be managed in a way that results in permanent changes in routines for all projects and infrastructure during operation. One tangible result of this approach is a handbook on ground management, which is now part of all construction project contracts and establishes principles for ground adaptation and preparation of roads and tower locations.

A total of 631 environmental incidents were reported in 2017, compared with 451 in 2016. The increase is primarily attributable to significant construction activities, along with increased awareness and reporting of incidents. Causes of and measures to manage the incidents are discussed at monthly meetings. There were several incidents involving minor emissions of oil and fuel, and breaches of requirements and related regulations. These included leaks from hydraulic hoses, concrete spills, defective labelling of fuel canisters and inadequate absorption materials on construction machinery. All incidents involving this type of emission or breach of requirements and regulations must be cleared up as soon as they are identified. Depending on the type of incident, and in particular in the case of recurring incidents, it may be necessary to change routines on construction sites.

Statnett SF's environmental management system is certified to ISO 14001:2004. In 2017, Statnett reinforced its environmental management to be able to achieve

certification with the 2015 version of the standard during 2018. Statnett has carried out an audit on the company's key environmental areas, i.e. the various potential climate and environmental impacts of the operations. This will be used as a basis for revising environmental targets and measures to enable Statnett to continually improve environmental work across the Group's business. Statnett has also started work to better incorporate lifecycle considerations for climate and environmental impacts in internal decision-making.

#### Biodiversity

Statnett considers habitat types and species distribution when planning and selecting solutions, and during construction and operation of facilities, focusing in particular on protecting endangered and vulnerable species, and protected areas. The company follows this work up through internal and external reviews when planning new facilities, and through environmental monitoring during the construction and operating phase. The results of these surveys are used to select solutions that have the least possible impact on biodiversity.

The greatest impact on wildlife is assumed to occur in the construction phase due to disruption from intense activity and noisy building work. To protect biodiversity to the greatest extent possible, Statnett considers the need to restrict construction activities during particularly sensitive periods, for example, during the nesting season for endangered and vulnerable bird species and the calving season for reindeer. The same restrictions can also apply during the operating phase, with the exception of in emergency situations when infrastructure needs to be rapidly restored. To reduce impacts in important nature areas there can be among other, restrictions to the felling of trees and ground transportation to be limited or avoided completely.

Grid infrastructure is often built in remote areas with no existing road access. This can be done intentionally due to significant engagement on the part of stakeholders concerning the location of new grid facilities. When construction takes place in these kind of areas this results in encroachments on nature with consequences for the landscape and biodiversity. In addition to gridfacilities, it may also be necessary to construct permanent or temporary roads and to erect rigging areas. The siting of grid infrastructure away from public highways also involve a high degree of transportation over unprepared ground. The facilitation of temporary roads, rigging areas and any damage to the ground as a consequence of this must comply with the principles issued in the handbook on ground management consistently across all projects. In addition to road construction and driving off road, transportation over great distances contributes to climate gases and environmental emissions.

There are 2,702 protected areas in Norway. Statnett's power lines cross or are located close to 98 of these areas and the restricted safety zone impacts on a total area of 18 km<sup>2</sup> in or near to protected areas – which make up around 0.03 per cent of protected areas in Norway. (See Form of protection table.)

There has been an increase in the affected areas in recent years, primarily due to the establishment of new protected areas around existing power lines. In 2016, two new nature reserves were established close to Statnett's power lines. These are included in the reporting for 2017 and explain why the indicator for the affected area in or close to protected areas has increased, while the number of kilometres of power lines in protected areas has remained the same as last year. Statnett aims to avoid encroaching on protected areas when constructing new power lines and substations and takes these matters into account in the early planning stage of new facilities.

#### Landscape

Statnett endeavours to identify solutions that provide a good aesthetic fit with the environment throughout the planning stage. Statnett uses laser scanning and threedimensional terrain modelling to select options that take account of the form and qualities of the landscape. The choice of routes is the simplest and most effective way of softening the visual impact of power lines in the landscape.

As part of Statnett's environmental strategy, Statnett always endeavour to construct new transmission capacity with limited encroachment on new nature areas. It is also considered the possibility to achieve the above through improved utilisation of existing power facilities, including voltage upgrades. In addition to a limited need for impacting new nature areas, voltage upgrades reduce energy losses per transported MW and make an important contribution to electrification.

Statnett owns and operates power lines with a voltage level in the range of 22 kV to 420 kV. The number of kilometres of 420 kV power lines increased in 2017, while the number of kilometres of power lines with voltage levels of 132 kV and 300 kV fell. The changes are attributable to voltage upgrades, construction of new, and the demolition and removal of, existing power lines, and purchases and sales of power lines. As of 31 December 2017 Statnett operated 3,803 kilometres of 420 kV power lines (see table for details on power lines by voltage level).

Statnett assesses whether it is possible to restructure or remove older transmission grids when planning and developing the power system. When power lines are demolished, they are taken down and towers are removed, and after a few years the forest regrows. Statnett has decommissioned around 650 kilometres of power lines since adopting this strategy around 15 years ago. During the same period, there is constructed 1,300 km of new power lines. In 2017, Statnett commissioned 189 km of new power lines and demolished 54 km of existing power lines (see transmission lines and cables in operation table).

Statnett has prepared a standard for forest clearance for power line routes to reduce the visual impact of power lines in forests. This takes into consideration both security of supply and personal safety and applies to everyone who clears forests for Statnett. The standard establishes that vegetation must be preserved wherever possible, for example in river gorges and in areas of dwarf forest ecosystems in mountainous regions.

- - . -

		2017			2016	
Form of protection	Number of protected areas	Kilometres of power lines	Areal (km2)	Number of protected areas	Kilometres of power lines	Areal (km2)
Biotope protection under the Norwegian Wildlife Act	4	85	4	4	85	4
Animal protection area	11	42	2	11	42	2
Landscape protection area	15	132	7	15	132	7
National Park	1	0	0	1	0	0
Nature reserve	66	92	5	64	92	4
Protected plant area	1	0	0	1	0	0
Total	98	351	18	96	351	17

Statnett employs its own forestry experts to coordinate forest clearance operations. Environmental personnel employed on construction contracts help to assess how much forestry needs to be cleared.

Additional measures may be required to reduce the visual impact on some sections, for example camouflaging wires, towers and insulators, the demolition and removal of old facilities and developing new types of tower. In 2017, Statnett camouflaged the power lines between Kvandal and Balsfjord and between Lyse and Tjørhom by painting some towers green and softening the impact of the wires. Another measure could involve designing towers as sculptures or design elements. In 2017, Statnett erected a design tower on Øygardstølen at Lysefjorden.

For reasons of aircraft safety, Statnett are by regulation required to increase the visibility of certain towers and power lines. This could involve painting towers red and white, or installing aircraft warning spheres on some lines.

#### **Material consumption**

Statnett performs major construction activities that use high volumes of construction materials such as concrete and steel for substations, cables and power lines.

In 2017, Statnett ordered 6,225 tonnes of steel, 4,680 tonnes of which were for towers (see Purchased materials table). The remainder was steel for foundations. This was less than in 2016, when there was purchased steel for towers for more projects. In 2017, there was purchased 4,176 tonnes of steel for towers for

the new 420 kV line between Lyse and Sauda and for some smaller projects for power lines already in operation. In 2016, Statnett purchased steel for towers for the Namsos-Åfjord, Snilldal–Surna, Balsfjord– Reisadalen–Skillemoen (Alta), Ertsmyra–Fjotland and Ertsmyra–Lyse–Duge lines.

Statnett is testing pre-fabricated steel foundations on the Balsfjord–Skillemoen line. The steel foundations are transported on winter roads, which reduces the use of helicopters and causes less damage to the ground compared with driving over snow-free ground during the summer. Most tower foundations are cast in concrete on the site where the towers will be erected. There was purchased less concrete for foundations in 2017 than in 2016 due to the fact that Statnett purchased concrete foundations for five different power line projects in 2016, but essentially only for the Lyse–Sauda line in 2017.

More phase wires and overhead wires were purchased in 2017 than in previous years. This is primarily due to the fact that wires for major projects were purchased in 2017 and steel for towers and foundations in 2016. Statnett also bought in 25.2 kilometres of aluminium underground cable and 900 metres of copper underground cable in 2017.

Construction of substations is often outsourced as a design and build contract, where the contractor procures the construction materials. Statnett purchases transformers, reactors and p-coils. Fewer transformers were purchased in 2017 than in the previous year.

#### Power lines divided into voltage level<sup>1)</sup>

Voltage level	Enhet	2017	2016	2015
AC 132	km	2,411	2,468	2,686
AC 300	km	4,387	4,601	4,595
AC 420	km	3,803	3,276	3,138

<sup>1)</sup> In 2017 Statnett also operated power lines at following voltage level: 22 kV: 38 km, 66 kV: 35 km, 150 kV: 11 km, 220 kV: 87 km, 250 kV: 56 km, 350 kV: 28 km.

Transmission lines and cables in operation <sup>2)</sup>	Unit	2017	2016	2015	2014
Power lines in operation	km	10,855	10,600	10,295	10,149
Underground cables and subsea cables in operation 1	km	1,287	1,282	1,268	1,212
New operational power lines	km	189	149	162	49
Demolished facilities	km	54	25	80	47

<sup>2)</sup> The principles for reporting were amended in 2016. Values have been updated for all years. The figures show installed running metres of cable, not route kilometres

Statnett is currently mapping the climate and environmental impacts of the company's power lines. When developing new types of towers, Statnett includes lifecycle analyses as part of the decision-making basis. Lifecycle analyses show that production of raw materials and the actual towers have a major impact on the climate and the environment over a lifecycle of around 70 years compared with other activities such as transport, installation and maintenance. Statnett will use this knowledge to establish requirements for procuring different categories of materials.

#### Climate risk and adaptation

Statnett's climate risk is split into two main areas: Direct risk relating to the physical impact of changes in climaterelated stresses on the company's infrastructure, and indirect risk relating to climate-policy measures due to society's growing awareness of climate changes.

The overarching risk profile relates to more extreme weather and an increased focus on climate policy, and ensuing more stringent legal requirements in Europe and Norway. The European power system must be updated in line with the EU's climate targets and Statnett is heightening its requirements for securing grid infrastructure of all voltage levels.

While knowledge of the physical impact of the weather and the climate on the company's infrastructure has always been important for Statnett's planning, construction and operation of the power system, these issues are expected to become even more relevant given that climate changes are expected to increase in the coming decades. The Norwegian Meteorological Institute's report, *The importance of climate changes for*  Statnett's transmission infrastructure (2016) indicates that increased risk of earth slides and floods and more frequent extreme weather is likely. Statnett is addressing these challenges by collaborating with other actors and experts in meteorology, geology and climate change.. Statnett continually develops methods and technology to mitigate climate risk for new and existing facilities, and uses climate models as a basis for planning and designing new power lines and substations.

In 2017, Statnett systematically mapped the potential impact of climate-policy-related measures on the company's operations. Statnett assumes that it will face more stringent climate requirements and report more extensively on the achievement of targets in future, and have started work to identify what is needed to be able to spearhead developments in this area.

Construction sites are increasingly expected to be fossilfree, i.e. it should be possible to operate machinery and equipment without recourse to fossil energy carriers such as conventional petrol and diesel. Statnett has initiated an R&D project to assess how to plan and implement projects to achieve this goal. The results of the project will be implemented across the organisation in order to enable establishing requirements for fossil-free construction sites in future projects. In 2017, Statnett requested one contractor to achieve this by stipulating requirements to "as far as possible use fossil-free construction machinery" in the construction of Sogn substation. Statnett is also investigating whether contractors can use fossil-free construction machinery through market surveys and by participating in the SINTEF-led "Green Construction Sector" network. Statnett aims to start its first project with a fossil-free

Purchased materials	Unit	2017	2016	2015	2014
Concrete (foundations)	tonnes	4,048	18,643	2,547	Ikke rapp
Of which rock foundations	tonnes	3,298	12,658	2,059	"
Of which earth foundations	tonnes	750	5,985	488	"
Steel	tonnes	6,225	18,500	9,803	"
Of which steel foundations	tonnes	1,545	1,740	0	"
Wires	tonnes	6,743	2,485	3,378	"
Of which phase lines	tonnes	6,189	2,324	3,200	"
Of which overhead ground wires	tonnes	554	161		"
Transformers	tonnes	900	3,000	4,500	"
Transformer oil	tonnes	192	640	N/A	"
P-coils	tonnes	180	120	0	"
Reactors	tonnes	675	225	450	"

construction site in 2018. Statnett is also carrying out further work to identify which zero-emission solutions can be used on the construction sites.

Statnett is continually mapping climate risk and developing measures to manage these risks. The company is enhancing its expertise and methodology to be better able to leverage the opportunities offered by early adaptation to expected climate changes.

# Greenhouse gas emissions from Statnett's operations

In 2017, Statnett SF's total emissions of  $CO_2$  amounted to 55,576 tonnes (see Greenhouse gas emissions table). This represents a decrease of 6,218 tonnes (11 per cent) compared with 2016.

Statnett transported around 98 TWh of electricity in 2017. This equates to an emission intensity of 0.57 grams of  $CO_2$  per kilowatt hour transported in the transmission grid, down from 0.62 grams per kilowatt hour in 2016.

The reduction in greenhouse gas emissions is primarily attributable to lower energy losses from transportation in the grid. This is the greatest source of greenhouse gas emissions at Statnett SF, accounting for 70 per cent of total emissions. Transmission and distribution losses in 2017 totalled 2,363 GWh, compared with 2,611 GWh in 2016, which represent respectively 2.4 and 2.5 per cent transported power in the grid. In addition, the CO<sub>2</sub> factor for electricity was slightly lower in 2017 than in 2016. This factor is affected by purchases and sales of guarantees of origin in Norway, which generate a higher percentage of CO<sub>2</sub> per GWh than Norwegian power production. The combination of a reduction in grid losses and lower CO<sub>2</sub> factors generated a total decrease in CO<sub>2</sub> emissions from grid losses of 6,595 tonnes.

Energy losses from transport in the power grid are impacted by factors such as the volume of generated power, the volume of transmitted power, power consumption and the volume of imported and exported power. They are also affected by the voltage level in the power grid. Transmission and distribution losses generally fall as the voltage level rises. Voltage upgrades of existing power lines and substations, which are an important tool in the environmental strategy, will help to reduce transmission and distribution losses. In 2017, slightly less power was generated and transported between and out of the three price areas in southern Norway (NO1, NO2 and NO5). This resulted in lower overall transmission and distribution losses. Greenhouse gas emissions are calculated in accordance with the GHG protocol using a location-based method. Applying a market-based method, which reflects the  $CO_2$ emissions from power production across the whole of Europe adjusted for guarantees of origin, emissions from transmission and distribution losses would equate to 1,251,860 tonnes of  $CO_2$ .

Statnett has experienced an increase in greenhouse gas emissions due to emissions of SF<sub>6</sub>. The gas's extremely good insulating properties make it ideal for use in transformer stations, including where there is a need to construct compact, indoor substations. This could be either due to lack of space or to avoid operational stoppages and corrosion in coastal areas. SF<sub>6</sub> is the greenhouse gas with the highest GWP (global warming potential). In 2017, Statnett performed lifecycle analyses of gas- and air-insulated substations. These revealed that gas-insulated substations generate higher greenhouse gas emissions throughout their lifecycle, despite the fact that air-insulated substations involve wider area encroachments and thus produce higher greenhouse gas emissions during the construction period. These environmental values are weighed against each other when planning new substations.

In 2017, SF<sub>6</sub>-related emissions increased by 639 tonnes of  $CO_2$  compared with 2016. The emissions of SF<sub>6</sub> gas are primarily "fugitive" emissions, which involve fewer emissions from leakages.

Greenhouse gas emissions are impacted by both the age of infrastructure and total levels of SF<sub>6</sub>. In 2017, Statnett's SF<sub>6</sub> facilities experienced a leakage rate of 0.27 per cent, compared with 0.26 per cent in 2016. Total levels of the gas increased from 2016 to 2017. There were three major emissions of SF<sub>6</sub> not involving fugitive emissions during the year. Two of the emissions were discovered when refiling SF<sub>6</sub>, and one was attributable to a failure in routines. As a result of the emissions, Statnett updated and coordinated the routines for maintenance and planned replacement of infrastructure parts.

There is currently no effective alternative to  $SF_6$  for the highest-voltage facilities. In 2017, Statnett started a qualification programme to evaluate alternatives to  $SF_6$  in partnership with various suppliers. The purpose of the project is to reduce the use of  $SF_6$  in Statnett's facilities due to the gas's high GWP.

The authorities impose stringent requirements for handling the gas. In addition, Statnett constantly

examines opportunities to switch to facilities and components with lower emissions wherever possible. Despite this, the number of stations insulated with SF<sub>6</sub> is expected to rise over the next few years as a result of new constructions in both densely populated residential and topographically demanding areas. Statnett will assess alternatives to SF<sub>6</sub> for relevant projects where this

is stipulated prior to the start of construction. Rising levels of  $SF_6$  have been identified as a specific risk area requiring continuous improvement of gas-handling procedures and replacement of older equipment.

Greenhouse gas emissions from Statnett's back-up power plants, Tjeldbergodden and Nyhamna, fell from

Emission intensity	Unit	2017	2016	2015	2014
Total greenhouse gas emissions	tCO <sub>2</sub>	55,576	61,794	41,465	35,220
Total power transmission in the main grid	TWh	98	99	94	92
GHG emission intensity	tCO <sub>2</sub> /TWh	568	624	441	383
Greenhouse gas emissions <sup>1)</sup>	Unit	2,017	2016	2015	2014
Direct emissions (scope 1)	tCO <sub>2</sub> equivalents	11,898	12,190	10,676	8,868
From fuel consumption <sup>2)</sup>	tCO <sub>2</sub> equivalents	2,302	2136	1,907	1,442
From company car travel <sup>3)</sup>	tCO <sub>2</sub> equivalents	158	198	190	201
From helicopter use (Statnett) <sup>4)</sup>	tCO <sub>2</sub> equivalents	800	640		
From fugitive emissions (SF6) <sup>5)</sup>	tCO <sub>2</sub> equivalents	8,446	7,807	6210	5,497
From reserve power facilities (natural gas)	$tCO_2$ equivalents	192	1,409	2,369	1,728
Indirect emissions (scope 2) <sup>6)</sup>	tCO <sub>2</sub> equivalents	38,007	44,642	25,075	24,710
Electricity	tCO <sub>2</sub> equivalents	215	255	135	160
Grid losses	$tCO_2$ equivalents	37,792	44,387	24940	24,550
Other indirect emissions (scope 3)	tCO <sub>2</sub> equivalents	5,671	4,962	5,714	1,642
From company air travel <sup>7)</sup>	tCO <sub>2</sub> equivalents	2,426	2,311	1875	1,642
From helicopter use <sup>4)</sup>	tCO <sub>2</sub> equivalents	3,245	2651	3,839	N/A
Total emissions	tCO <sub>2</sub> equivalents	55,576	61,794	41,465	35,220

<sup>1)</sup> Greenhouse gas emissions relate to Statnett SF, with the exception of helicopters (contractors). Emissions are reported based on operational control approach. The figures in the table are calculated in accordance with the GHG protocol and show emissions using the location-based method of calculation. In 2017, total emissions for scope 2 using the market-based method, which is adjusted for sales of guarantees of origin, amounted to 1,276,557 tonnes of CO2 (emission factor per NVE equates to 530 tonnes CO2/GWh)

<sup>2)</sup> Emission factor: SSB Sales of petroleum products and gov.uk Greenhouse gas reporting

<sup>3)</sup> Emission factor: OFV AS

<sup>4)</sup> Emission factor JET A-1 (Kerosene): Asplan Viak report "Notodden airport - GHG emissions". The emissions for helicopter use are based on estimated average hourly usage per kilometer line section, which means there is some uncertainty in the numbers.

<sup>5)</sup> Emission factor: United Nation GWP potential

<sup>6)</sup> Emission factor: NVE electricity disclosure 2016. District heating and cooling are not included.

7) Source: Via Egencia

Levels and emissions, $SF_6$	Unit	2017	2016	2015	2014
Levels as of 31Dec	kg	129,281	126,648	119,559	121,603
SF6 emissions	kg	353	327	260	230
Number of substations with gaseous components		141	138	137	137
Of which number of gas-insulated substations		30	29	26	28

1,409 tonnes  $CO_2$  in 2016 to 191 tonnes in 2017. This was due to the decision to only run these facilities for maintenance purposes. Emissions from the reserve power plants are subject to quotas, which are reported each year to the Norwegian Environment Agency. Statnett does not have any free quotas and pays for emissions in accordance with EU ETS regulations.

In 2017,  $CO_2$  emissions from helicopter use increased for both Statnett and contractors compared with 2016. This was primarily due to high levels of construction, and the fact that more of the construction project activities required the use of helicopters in 2017, for example installation of towers and wires.

Emissions from fuel consumption for Statnett SF rose slightly against 2016 due to high levels of construction and the purchasing of more vehicles. These vehicle purchases have effected the extent to which the employees use their own cars while travelling on business. This resulted in a slight decrease in emissions from company vehicle travel compared with previous years (see Greenhouse gas emissions table).

In 2017, Statnett reinforced its climate work as part of initiatives to improve the overarching environmental system (see Environmental impact from own operations). Some recorded sources of emissions are for various reasons not included in the emissions accounts. These include greenhouse gas emissions over the lifecycle of various towers and wires, encroachments on natural carbon sinks such as forests and bogs, and construction activities. In 2018, Statnett intend to prepare measures and methods to measure and reduce these emissions.

It was carried out a lifecycle analysis of three different types of tower including conductors and fittings in 2017. This showed production of materials to be clearly the largest contributor to overall greenhouse gas emissions over a 70-year lifecycle. Statnett can reduce these emissions by making more stringent requirements of suppliers and aims to prepare and implement appropriate measures during 2018.

The ongoing improvement initiatives for the environment and climate are expected to result in revised climate and environmental targets during 2018.

#### New renewable energy

One of Statnett's three main strategic objectives is to facilitate the electrification and construction of renewable

energy. This is necessary to enable Norway to achieve its climate objectives. An environmentally friendly energy system of the future will require fossil energy sources to be phased out and replaced with renewable energy sources. Statnett is contributing to this shift by developing the transmission grid to allow new renewable energy from Norway and its neighbouring countries to be connected to the power grid. Around 8 per cent of Statnett's planned grid investments of NOK 35–45 billion over the next five years relate to the construction of new renewable energy. The largest current investment projects commissioned to connect new renewable energy relate to grid expansion for wind power in Central Norway.

A number of projects are partly commissioned in order to construct new renewable energy. The development of the interconnectors to Germany and the UK, which account for around 30 per cent of planned grid investments over the next five years together with The Vestre corridor project, will help to improve security of supply and even out around-the-clock imbalances in German and UK renewable power production.

#### Drones

Statnett mainly uses drones to inspect and maintain power lines and substations, work that would otherwise be carried out using helicopters. Statnett wishes to extend the use, and over the long term, the application area of drones. In 2017, Statnett only used electric drones, which means that, assuming this trend continues, using drones instead of helicopters will reduce future greenhouse gas emissions. In the year under review, the drones used an average of 0.14 kWh of electricity per flying hour, which equates to  $CO_2$  emissions of around 0.002 kg per hour.

In 2017, Statnett's drones were airborne for a total of 38 hours. Greenhouse gas emissions from the electric drones totalled less than 1 kg and are consequently not reported in Statnett's climate accounts.

#### Pollution and waste

Statnett's facilities must be planned and built so as not to pollute the environment. A standard 420 kV power line occupies an area 40 metres wide and stretches over large distances. This gives rise to specific requirements for handling waste and other pollution in order to avoid the spread of environmentally hazardous substances. Statnett requires contractors to operate in a manner that minimises the risk of leakages and emissions. Emergency preparedness procedures have been drawn up to reduce the consequences for the environment of accidents that result in emissions. Waste management must be described in a dedicated plan and be approved by Statnett before project start. Statnett implements controls to ensure that waste is removed from construction areas.

While the risk of pollution is greatest in the construction phase, there can can also be implemented measures to reduce the risk of pollution once facilities are in operation. All substations have oil pits to limit the negative consequences of any leakages of transformer oil. In 2017, Statnett revised the instructions for waste and chemical handling. These provide an overview of the requirements that apply to handling waste and chemicals. There is also prepared a guide and checklist for waste management.

Statnett has entered into a framework agreement for waste management which must be used by all units. This will, together with the revised instructions for waste management streamline and reduce uncertainty in the reporting of different types of waste, which up until now has been performed manually by individual units.

Statnett estimates that 85 per cent of the waste is reported, but there is some uncertainty regarding the exact number.

A programme to replace all facility components and luminaires containing PCBs is already completed. However, materials containing PCBs might still be in use for instance in buildings, and in 2017 Statnett delivered 56 kg of insulating glass containing PCBs to approved disposal depots. Mapping of pollution sources such as PCBs and asbestos is one element of the programme to assess the condition of all power facilities in future years. This will provide an overview of equipment and materials containing PCBs and make clear what measures potentially needs to be implemented.

Statnett aims to reduce total waste volumes and ensure that as much waste as possible can be utilised either as material or energy resources. Waste from all construction projects, operating facilities and office buildings is source-separated, appropriately managed and delivered to approved disposal depots. In 2017, Statnett SF's sorting rate was 87 per cent (see Waste type table).

#### Electromagnetic fields

All electrical installations are surrounded by electrical and magnetic fields, which are collectively known as electromagnetic fields. The Norwegian Radiation Protection Authority is the government's expert authority on electromagnetic fields from electrical installations. Legal regulations are established in the Norwegian Radiation Protection Act and the Norwegian Radiation Protection Regulations. Statnett complies with the requirement of the latter to maintain all human exposure as low as possible in accordance with good practice.

The threshold for the general public's exposure to electric fields is 5 kV/metre; however, this can be exceeded beneath Statnett's lowest-hanging 420 kV power lines. The Norwegian Radiation Protection Authority deems it acceptable for thresholds to be exceeded in individual cases, but only for a short time, for example, when passing under power lines. Electrical fields of this level can feel uncomfortable, but are not deemed to be

Waste type <sup>1)</sup>	Unit	2017	2016	2015	2014
Wood	tonnes	1,723	1,040	596	853
Metals	tonnes	1,721	2,844	2,835	763
EE waste	tonnes	181	165	14	84
Other fractions <sup>2)</sup>	tonnes	725	921	1,266	120
Cardboard and paper	tonnes	31	26	8	54
Plastics	tonnes	14	30	4	3
Hazardous waste	tonnes	314	114	251	581
Total source-separated waste	tonnes	4,709	5,140	4,974	2,458
Residual waste	tonnes	634	605	1,365	322
Source separation rate	per cent	87	88	73	87
Estimated reported	per cent	85	95	70-80	60-70

<sup>1)</sup> Statnett reports waste by type, not method

<sup>2)</sup> Other fractions: concrete, gypsum, batteries, glass, insulators, organic waste

injurious to health. Electrical fields are shielded by vegetation and buildings. Statnett designs new power lines so that the threshold for electrical fields is not exceeded where people are expected to pass nearby.

The World Health Organisation (WHO) has classified magnetic fields from high-voltage lines as potentially cancer-inducing. While no causal connection has been documented between proximity to high-voltage facilities and a risk of cancer, the authorities have decided to adopt a prudent approach and have established an assessment level (0.4 microtesla,  $\mu$ T). The assessment requirement applies to the planning of new power lines and to new buildings where children spend a lot of time such as homes, schools and kindergartens.

Statnett assesses and evaluates alternative solutions in accordance with the requirement whenever the annual average is above 0.4  $\mu$ T. One measure can be to adjust power line routes. However, in some case this can result diverting routes through or close to valued nature and outdoor recreation areas. The final decision on the choice of route is taken by the licence-issuing authority.

Statnett keeps constantly up to date with research into the potential health effects of electromagnetic fields from high-voltage lines. In 2017, Statnett carried out an R&D project to procure data on electromagnetic field values at the company's facilities. Measurements were taken of substations of all ages, below live power lines and on towers and on traverses. Needs to take action were identified and implemented.

#### Climate and the environment in R&D work

Statnett's R&D work on the climate and the environment continually provides important new knowledge about the impact of power lines on nature, biodiversity and the climate. Statnett balances various considerations such as the environment, climate and costs and security of supply in the best interests of society in constructing, operating and maintaining the power grid. This requires Statnett to have up-to-date knowledge about various solutions and measures, including environmental impact, risk and costs. In 2017, Statnett initiated a number of R&D projects to obtain and develop methods for more effective integration of the climate and the environment into the decision-making processes. Statnett also continued a number of R&D projects with a primary focus on biodiversity.

The subproject Footprint, Climate and Environment encompasses the following projects:

Land use affecting reindeer: Statnett has participated in projects to study land populated by domesticated and wild reindeer around power lines and other infrastructure for many years. The new 420 kV power line currently being constructed between Namsos and Surna passes through the Fosen reindeer husbandry district. Statnett has collected GPS data from reindeer herds here since 2008, and learned much about the movement and habits of reindeer in the area prior to the start of construction. Collection of GPS data is continuing in the construction phase, and will continue for several years following completion of the power line. Statnett hopes this will provide valuable additional knowledge about reindeer and power lines, which can be used as a guide for land management and to establish requirements for preventive measures.

**Birds and power lines:** Bird collisions are a problem near power lines. There is a need to find out more about which species are particularly at risk, which areas represent particular problem areas, and where bird markers can be placed on lines as effective preventive measures. In spring 2017, there was installed a mobile radar to monitor bird migration along the River Søa in Hemne municipality. The Research Council of Norway has now approved funding for BIRDPOL, a project that will continue these radar surveys to determine whether a new 420kV power line that crosses the valley and the River Søa will have any noticeable impact on bird migration. The effect of bird markers will also be analysed with a view to developing better methodology for establishing when to use preventive measures.

Using goats to control vegetation: There is a need to regularly clear trees from power line routes to avoid trees falling onto power lines and flash-overs from live conductors to surrounding vegetation. Goats are known for being voracious grazers of both trees and bushes, and for ring-barking young trees so that they wither and die. In 2017, a trial project was carried out using goats to graze on part of the power line route in Isfjorden in Rauma municipality. The power line route was demarcated as a grazing area for the goats using NoFence brand GPS collars. The trial project successfully showed that goats fitted with these collars keep most vegetation under the desired level of control. More knowledge is required about the long-term effect and costs before using goats can be compared with manual cutting/felling, and Statnett will assess continuation of the project in 2018.

New framework for greener nature encroachments and reduction in greenhouse gas emissions in construction work: The Research Council of Norway approved funding for a new innovation project in December 2017. The project is intended to further develop the planning and implementation of preventive measures in construction projects so as to keep the total scope of encroachments on nature and greenhouse gas emissions from bogs and wetlands as low as possible. The project is due to start in the second quarter of 2018.

**Fossil-free and zero-emission construction site:** Statnett wishes to reduce greenhouse gas emissions and negative environmental impacts from the company's construction activities. In 2017, Statnett reviewed ways of planning and operating fossil-free construction sites, and has already used the knowledge gained on some construction projects. The survey project will continue in 2018 with the objective of mapping which types of zeroemission solutions and machinery can be used on the company's construction sites.

### Ethics and anti-corruption

Statnett's role in the Norwegian power system demands that the company adopts high ethical standards to safeguard the company's neutrality, credibility and integrity. Statnett exercises zero tolerance for corruption.

#### Statnett's approach

The Board of Directors adopts the Group's Code of Conduct. Managers are responsible for circulating and ensuring compliance with these guidelines. Statnett has an ethics representative who is responsible for strengthening legal rights and helping to identify censurable conditions in the company. Statnett employees who notify censurable conditions, shall be able to take up issues that they wish to address with the ethics representative in full confidence. The ethics representative also acts as a notification channel for Statnett's cases involving harassment. ethics representative scheme has raised the profile of ethics among all Statnett employees and in the company as a whole. The ethics representative contributes to all induction courses for new recruits, and the representative scheme is communicated via the intranet and website. The ethics representative scheme also includes internal dilemma training organised by the ethics representative. Many of the Group's employees participated in dilemma training during the year under review. The ethics representative reports to the CEO and the Board of

Directors on the number of referrals and the number of cases reviewed each year.

Statnett exercises zero tolerance for corruption, harassment and other workplace crime. The company strives to ensure that there are no instances of the above either in the organisation or in interaction with partners so that Statnett complies with Norwegian legislation and regulations. Statnett received no fines nor other sanctions relating to corruption, harassment or workplace crime in 2017. The anti-corruption programme incorporates topic-based presentations as well as dilemma training. The programme, which is organised by the legal department, is intended to raise the profile and to create a better understanding of anti-corruption legislation.

See <u>www.statnett.no</u> for more information on Code of Conduct.

# Transparency, dialogue and acceptance

By virtue of Statnett's role, the company sets important premises for the operations and development of the power system. When Statnett operates existing facilities, plans the power system, conducts construction work or performs tasks as the TSO, this affects the stakeholders in the power system and in local communities. Statnett must exercise the company's responsibilities in a way that provides legitimacy. Transparency and dialogue are prerequisites for ensuring sound processes and making the right decisions, which in turn generate trust and acceptance from society. Also as a TSO Statnett is part of public administration and subject to the Public Administration Act and the Freedom of Information Act.

Statnett is responsible for assessing and reporting on the transmission grid, regardless of whether the company owns the grid facilities. Statnett is required to contribute to evaluation reports for regional power systems in order to collaborate on projects across grid levels. Pursuant to the Norwegian Energy Act, Statnett has a duty to perform assessments relating to the connection of consumption and production to the power system. Statnett must also make plans for developing and updating its own facilities and for safeguarding future system operation. Statnett is required to follow a series of processes that ensure early involvement and stakeholder dialogue. In Statnett's work on Power System Reports (PSR), Concept Evaluation Reports (CER) and licensing processes, the company holds meetings with relevant stakeholders and other

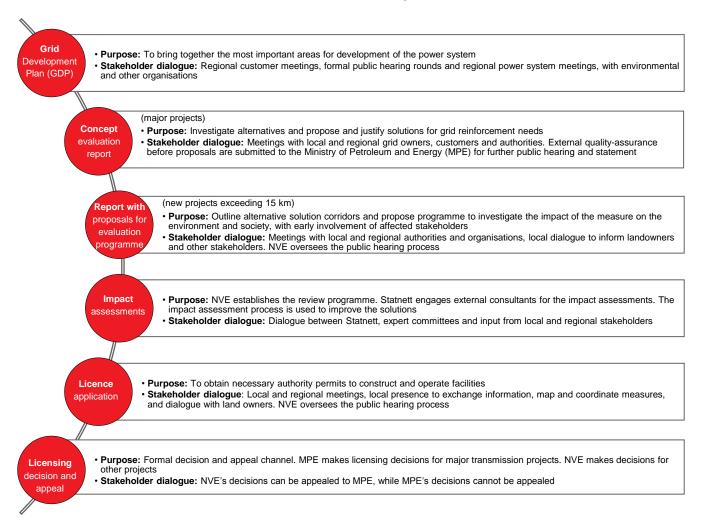
players with a view to encouraging their involvement in Statnett's projects. Statnett prepares a Grid Development Plan (GDP) every other year. The GDP is a public summary of the PSR and contains information about Statnett's plans for the transmission grid in particular and the power system in general, for which a number of development projects are in the planning or implementation phase. Statnett develops power system, and regularly publishes a System Operations and Market Development Plan (SMDP) with an overview of operations and market challenges and planned initiatives. Furthermore, Statnett participates in Nordic and European power system planning together with the other Nordic countries, both bilaterally and through the European Network of Transmission System Operators for Electricity (ENTSO-E), for example.

#### Statnett's approach

For Statnett's stakeholders, it is essential to be able to influence the company's plans and the way in which Statnett implements its projects. This is largely ensured through the licensing processes conducted in cooperation between Statnett as the developer and the licensing authorities. The figure below depicts an overview of the various steps in a licensing process and stakeholder involvement.

All of Statnett's major projects have external impacts and are subject to public licences. This involves following the requirements for involvement and analyses as described in the figure. Analyses are published in connection with the licensing process, related public hearings and processing by the authorities.

In addition, Statnett has a portfolio of minor maintenance and reinvestment projects that have direct or indirect social impacts. There are reduced requirements for involvement for these projects. However, they follow internal instructions that safeguard the necessary dialogue with stakeholders.



The development of the transmission grid, in accordance with the Norwegian Energy Act and Statnett's Articles of Association, must be in the best interests of society. This means that Statnett must assess and establish that the social benefit is greater than the social cost. This applies both to decisions made by Statnett and to decisions made by the authorities to provide necessary permits for projects.

Socio-economic analyses ensure that decision-makers receive professionally prepared documentation and comparable decision-making criteria. If the decision is to move ahead with a project, Statnett focuses on commercial profitability, as well as cost-effective solutions.

The role as TSO and ensuring alignment with the Forskrift om systemansvar (FOS) entail that Statnett makes decisions that affect different power system actors. Incumbent to Statnett is a responsibility to have transparent processes and to act neutral as the TSO. It is of importance to maintain trust in these processes and the exercising of authority. Statnett invites to meetings with different parties on a regular basis where the activities linked to exercising authority as the TSO is communicated and Statnett and the parties are in constant dialogue on these issues. The meetings gives a basis for the parties to promote and communicate their interests as well as to ensure acceptance for the way Statnett exercise the authority as the TSO. Additionally Statnett has a formalized dialog through the Market and operations forum that represents a cross section of Statnett's customers. The forum discusses and shares knowledge about strategic and principal subjects regarding market and operations.

Statnett attaches importance to transparency and verifiability, and the company's plans and reports are publicly available. Transparency about exercising authority as the TSO, plans for the power system and decision-making criteria is important for gaining the support and cooperation of those affected by the company's projects.

#### Future ambitions and objectives

Statnett is finding that stakeholders and other players want greater transparency, and strive for early communication and inviting to dialogue regarding the company's plans. In order to facilitate increased involvement, Statnett sent the Grid Development Plan to public hearing for the first time in 2015 and did so again for the 2017 Net Development Plan. Feedback indicated that there was a desire for increased access to the company's decision-making criteria and socio-economic analyses, more alternative scenarios for power system development, more discussion of new international connections and increased emphasis on CSR in terms of climate and the environment, as well as costeffectiveness.

Statutory regulations that require grid owner companys to provide a connection to the power system are paramount and the authorities expect grid owner companys themselves to formulate how they will comply with the intentions of the regulations. Statnett wishes to contribute to increased standardisation of the steps involved in the grid connection process in the industry and has invited stakeholders and other players to be actively involved in formulating the company's interpretation of the framework.

#### Results

Statnett has implemented a number of initiatives to become more transparent and verifiable. In 2016, the company published a long-term market analysis for the first time. Statnett has published information on socioeconomic methodology on the company's external website and is increasingly publishing socio-economic analyses. Statnett has published the company's project portfolio and updates this regularly to make estimated investment costs for various project phases more accessible. This will allow stakeholders to follow cost development over time. Statnett has also published an overview of future procurements. The purpose being among other things to provide an insight into the company's level of activity and strengthen coordination between Statnett and regional DSOs, producers, consumers and other players in the power system.

#### Conflicts and the right to appeal

Statnett endeavours to reach amicable agreements with affected landowners and rights-holders. In cases where voluntary agreements cannot be entered into, land and rights acquisition is executed on the basis of an expropriation permit issued by the licensing authority.

Appeals regarding decisions made by the TSO in accordance with the Regulations Relating to System Responsibility in the Power System follow the rules of the Norwegian Public Administration Act. Appeals regarding such decisions should be directed to the Norwegian Water Resources and Energy Directorate (NVE). Appeals regarding decisions on grid tariffs should be directed to the NVE, with the Ministry of Petroleum and Energy as the appeal body (MPE). Appeals regarding NVE's licensing decisions should be directed to the MPE as the appeal body. For the largest projects, the MPE is the licensing authority. Thus, the Ministry's decision is final and cannot be appealed. Other complaints relating to projects where Statnett is the grid owner and developer are processed on an ongoing basis by the projects.

#### Employees and labour organisations

With around 1,400 employees, about 70 per cent of whom are unionised, having a good dialogue between the parties is crucial for maintaining and developing good cooperation. This also applies to providing each other with information, such as during statutory discussions and negotiations, as well as for HR issues. Dialogue with the labour organisations and their central trade unions is important for ensuring that foreign contractors comply with Norwegian pay and working conditions and Norwegian provisions regarding working hours when they perform work on behalf of Statnett. In addition there is the company's own follow-up of the duty to ensure compliance through active controls and inspections and good contracts.

#### Knowledge, reputation and customer satisfaction

Statnett's activities affect many people, and the company's projects occasionally raise major public debate. Reputation surveys are conducted on a regular basis, which show that public trust in Statnett has been on the rise in recent years. In 2017, the overall impression of Statnett was 63 points (out of 100), two points higher than in 2016. Perceived knowledge of Statnett's business was at 27 points in 2017, up from 20 points in 2016. Confidence that Statnett ensures security of supply closed on 67 points in 2017, up 9 points on 2016. The 2017 survey recorded the highest levels ever for both perceived knowledge and confidence in Statnett. For customers directly linked to the transmission grid, satisfaction has been relatively stable, with a score of around 70 in recent years. In 2017, customer satisfaction was at 66, one point down from 2016. The survey shows a consistent high level of customer satisfaction regarding systems operations, but a downward trend regarding plans for grid development, Statnetts contribution to customer value creation and cost effectiveness. Statnett also receives annual feedback on how the level of transparency is perceived by customers directly connected to the transmission grid. Results have been improving in recent years, but show a decline from 69 for 2016 to 65 in 2017.

### Supplier monitoring

Statnett is in the middle of a period of major construction activity and is putting large parts of construction out to

tender. As construction client, Statnett is responsible for engineering solutions that reduce risks that could materialise during the implementation or operating phase. Residual project risk is brought to the attention of the contractor. In the same capacity, Statnett also has overarching responsibility for coordinating different companies in the phase of implementation, and planning is essential to reduce risk. This consequently involves further development and follow-up regarding the supplier market.

#### Statnett's approach

Statnett procures goods and services for the construction, operation and maintenance of power lines, facilities and ICT infrastructure. In 2017 Statnett spent 9 000 MNOK with 3 800 suppliers. The distribution of spending is depicted in the figure below. Statnett seeks to have control of the supply chain, and only allows a maximum of two levels of subcontractors below the supplier.

Suppliers must comply with Statnett's Code of Conduct for suppliers, which encompasses: the climate and the environment, human rights, work standards, pay and working conditions, requirements for business methods and use of subcontractors. The Code of Conduct is appended to all Statnett contracts, meaning that suppliers and their subcontractors are contractually bound to comply with these obligations. Statnett also has a duty to ensure that pay and working conditions at its subcontractors comply with prevailing regulations.

Statnett uses qualification of suppliers to reduce the risk of non-compliance with Statnett's requirements. Qualification processes always include requirements for HSE and quality management systems. For high-risk work and products, qualification includes audits and customer visits to verify that the qualification requirements are implemented in practice. Qualification will also ensure that the contracts Statnett enters into with suppliers satisfy requirements for pay and working conditions.

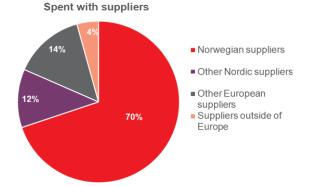
Suppliers are monitored through audits and spot checks to ensure ongoing compliance during the term of the contract.

Statnett uses contract scorecards to measure supplier performance for most procurement categories, applying parameters such as finance, progress, pay and working conditions, OHS and the environment.

#### Future ambitions and objectives

Statnett aims to take greater consideration of the environment and the climate in all company procurements and contracts, and is currently working to identify the best way to achieve this goal. In addition to incorporating environmental requirements into contracts, Statnett is examining how the environment and the climate can be evaluated or qualified in an objective and predictable manner. An example is the planning of a pilot scheme for zero-emission construction sites in connection with the projects in Greater Oslo.

Qualification of suppliers is an area of continuous improvement work. To ensure compliance with Statnett's Code of Conduct, as part of this process the company will perform a country risk assessment using, for example, corruption indices. There will be a greaterneed to take account of information security and protection of critical infrastructure in making future procurements. In accordance with amendments to the Norwegian Security Act, Statnett is required to implement risk-reducing measures, and to notify the Ministry of Petroleum and Energy of procurements of critical infrastructure. Further amendments to relevant frameworks that will result in more stringent regulation of safety-critical procurements are aexpected.



#### Results

In 2017 Statnett implemented a system for risk assessments of product groups. This means that time and resources mainly are used to qualify and monitor suppliers in high-risk procurements, while less complex processes are applied for low-risk procurements.

Statnett has a central supplier audit programme. The construction projects are responsible for audits of ongoing project-related contracts. The Procurement Unit is responsible for initiating qualification audits and audits of suppliers with framework agreements. One of the objectives is to ensure that suppliers of high-risk deliverables are regularly audited by Utilities – Nordic & Central Europe (UNCE) and Statnett's internal audit function. Statnett stepped up the initiatives in this area in 2017, carrying out just under 50 internal supplier audits.

In 2017 Statnett made an inspection to the Canadian contractor Valard on the Vestre Korridor project. This was a follow-up after an inspection the fall of 2016 expedited on the grounds of an anonymous tip. It revealed that workers had to return pay to their employer at that time in Bosnia. The contractor handled the situation and worked out a resolution within days. The result of this being that the workers got their pay redeemed, work contracts in Bosnia terminated and established new long-term work contracts with the parent company in Canada.

In 2017 Statnett followed-up on a nonconformity at a Slovak subcontractor to Siemens revealed in 2016. The contractor was paying salaries below requirements to fitters on transformer installation assignments in Norway. Statnett has not accepted the provided documentation that correct remuneration has taken place. As a consequence Siemens is suspended as a supplier until credible documentation is provided and the nonconformity is adequately handled.

Statnett's category team constantly endeavours to enable suppliers to develop and adapt to Statnett's needs and to facilitate effective market competition. To this end, meetings are regularly held with existing and potential suppliers regarding future developments and plans. This has produced results. Statnett experiences competition when requesting tenders and has achieved lower contract unit prices. Statnett also awarded contracts to more newly qualified tenderers in 2017.

## **GRI** Global reporting Initiative

GRI			Verified by				
indicator	Description	Reporting	external third party	Omissions			
	STRATI	EGY AND ANALYSIS					
G4-1	Statement from the CEO	See A Word from the CEO					
	ORGANISATIONAL PROFILE						
G4-3	Name of the organisation	Statnett SF					
G4-4	Primary brands, products and services	See This is Statnett					
G4-5	Location of the organisation's headquarters	Oslo, Nydalen					
G4-6	Number of countries where the organisation operates	See This is Statnett and Note 17					
G4-7	Ownership and legal form	See This is Statnett and Note 17					
G4-8	Markets served	See This is Statnett and Note 17					
G4-9	Scale of the organisation	See This is Statnett					
G4-10	Total number of employees by employment type, employment contract, region and gender	See Report from the Board of Directors, table under Employers Reported for the Group. Statnett operates in Norway and reports on that as one region. Significant percentage of hired workers via subcontractors. No particular seasonal variations in the workforce.		Equivalent statistics for subcontractors and suppliers are not available Collecting demographic data in the procurement phase could be perceived as discriminatory and a breach of the public procurement regulations to which Statnett is subject. Statnett is also not entitled to collect demographic data.			
G4-11	Percentage of total employees covered by collective bargaining agreements	See Corporate Social Responsibility/Transparency, dialogue and acceptance/Employees and employee organisations		Figures on the extent of unionisation among subcontractors and suppliers are not available on grounds of sensitivity.			
G4-12	Supply chain description	See Corporate Social Responsibility/Supplier monitoring					
G4-13	Significant changes during the reporting period regarding the organisation's size, structure or ownership	None					
G4-14	Precautionary approach	See Corporate Social Responsibility/Climate and the environment/Biodiversity, Landscape, Pollution and waste					
G4-15	Externally developed charters and principles to which the organisation support	None					
G4-16	Membership of associations or lobby organisations for which the organisation provides substantive funding	See Corporate Social Responsibility/Smart solutions/Innovation and technology development, Digitalisation					

GRI			Verified by			
indicator	Description	Reporting	external third party	Omissions		
	IDENTI	FIED MATERIAL ASPECTS AND E	BOUNDARIE	S		
G4-17	Entities included in the	See This is Statnett and				
	organisation's consolidated financial statements or equivalent documents	Note 17				
G4-18	Process for defining the report	See Corporate Social				
	content and aspect boundaries as well as implementation of reporting principles	Responsibility/About the report				
G4-19	List of all material aspects	See Corporate Social Responsibility/Materiality matrix				
G4-20	Aspect boundaries for each	No particular boundaries				
	material aspect within the organisation					
G4-21	Aspect boundaries for each	Main focus on subcontractor				
	material aspect outside the organisation	conditions and procurements above NOK 500,000				
G4-22	Restatement of information provided in previous reports	The reporting method for earth and subsea cables was changed in 2016. Historic values have been updated See Corporate Social				
		Responsibility/Climate and the environment/Landscape				
G4-23	Significant changes to scope and aspect boundaries from previous reporting period	None				
G4-24	STAKEI Stakeholder groups engaged	HOLDER ENGAGEMENT See Corporate Social				
04-24	by the organisation	Responsibility/Materiality matrix/Stakeholders/table on Stakeholder groups				
G4-25	Identification of stakeholders	Clarenolder groups				
		«				
G4-26	Approach to stakeholder engagement including frequency of engagement by type and by stakeholder group	«	Yes			
G4-27	Key topics and concerns raised by stakeholders and organisation's response	«	Yes			
	REPORT PROFILE					
G4-28	Reporting period	2017				
G4-29	Date of previous report	March 2017				
G4-30	Reporting cycle	Annual				
G4-31	Contact point for questions about the report	Knut Hundhammer				
G4-32	Reporting level	GRI G4 Core				
G4-33	Policy and current practice with regard to seeking external assurance for the report	The GRI report was externally verified in 2018				

GRI			Verified by				
indicator	Description	Reporting	external third party	Omissions			
GOVERNANCE							
G4-34	Governance structure, including committees of the highest governance body and committees responsible for decision-making on economic, environmental and social impacts	See Corporate Social Responsibility/Managing our corporate social responsibility See Report from the Board of Directors/Corporate governance					
	ETHICS	AND INTEGRITY					
G4-56	Values, principles, standards and norms of behaviour	See This is Statnett, and Statnett and Corporate Social Responsibility/Ethics and anti-corruption					
	TRANS	PARENCY, DIALOGUE AND ACC	EPTANCE				
G4-DMA G4-SO1	Evaluation of management approach Percentage of operations with	See Corporate Social Responsibility/Transparency, dialogue and acceptance See Corporate Social	Yes	The results and evaluation of measures are not demand, will be included in 2018 Statnett has not measured the			
	implemented local community engagement, impact assessments, development programmes	Responsibility/Transparency, dialogue and acceptance		number of projects with stakeholder engagement in 2017 The project process ensures that requirements are met for all projects			
	SECUR	ITY OF SUPPLY					
G4-DMA	Evaluation of management approach	See Corporate Social Responsibility/Security of supply	Yes				
G4-EU28	Power outage frequency	See Corporate Social Responsibility/table under Security of supply	Yes	Reported as frequency variances and non-delivered energy (NDE) GRI indicator not relevant, will consider introducing in 2018			
	ELECT	RICITY					
G4-DMA	Evaluation of management approach	See Corporate Social Responsibility/Electricity		The results and evaluation of measures are not demand, will be included in 2018			
	VALUE	CREATION					
G4-DMA	Evaluation of management approach	See Corporate Social Responsibility/Value creation	Yes	Evaluation of results for economic value generated and distributed are not demand, will be included in 2018.			
G4-EC1	Direct economic value generated and distributed	See Corporate Social Responsibility/table under Value creation See Financial reporting, consolidated financial statements and Note 9	Yes				
	COST	OPTIMISATION					
G4-DMA	Evaluation of management approach	See Corporate Social Responsibility/Cost efficiency	Yes	Considering establishing GRI indicator for 2018			

GRI			Verified by	
indicator	Description	Reporting	external third party	Omissions
	HEALT	H AND SAFETY		
G4-DMA	Evaluation of management approach	See Corporate Social Responsibility/table under Health and safety	Yes	
G4-LA6	Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work- related fatalities, by region and by gender	See Corporate Social Responsibility/table under Health and safety Norway is reported as one region	Yes	Not reported by gender due to the anonymity principle Occupational diseases are not reported HSE statistics for subcontractors include work conducted directly in the projects
G4-EU25	Number of injuries and fatalities among the public involving the organisation's assets	See Corporate Social Responsibility/table under Health and safety	Yes	
	ETHICS	AND ANTI-CORRUPTION		
G4-DMA	Evaluation of management approach	See Corporate Social Responsibility/Ethics and anti- corruption	Yes	Evaluation of results are not demand, will be included in 2018.
G4-SO5	Confirmed incidents of corruption and actions taken	Two cases of illegal employment contracts was reported at one of Statnett's subcontractors. See Corporate Social Responsibility/Ethics and anti- corruption, Supplier monitoring	Yes	
G4-SO8	Fines and non-monetary sanctions for non-compliance with laws and regulations	No sanctions have been reported. See Corporate Social Responsibility/Ethics and anti-corruption	Yes	
	EMPLO	YEES		
G4-HR3	Total number of incidents of discrimination and corrective actions taken	See Report from the Board of Directors/Equality and diversity	Yes	Initiatives for monitoring of discrimination cases and evaluation of results are not demand, will be included in 2018
	CLIMAT	E AND THE ENVIRONMENT		
G4-DMA	Evaluation of management approach	See Corporate Social Responsibility/introductory information about each topic under Climate and the environment	Yes	
G4-EU3	Number of customer accounts by type	Statnett's customers are exclusively professional customers in the transmission grid. The customers are divided into three categories: distribution grid companies (44), energy producers (19) and industrial companies (10) (individual consumption above 15 MW). There are a total of 73 customers in the central grid.	Yes	
	Enviror	mental impact of Statnett's operation	ations	
G4-EN24	Total number and total volume of significant spills	See Corporate Social Responsibility/Climate and the environment/Environmental impact of Statnett's operations	No	Figures are reported, but no reporting routines have been established. A system for collecting statistics will be established in 2018

GRI			Verified by	
indicator	Description	Reporting	external third party	Omissions
	Biodive	ersity		
G4-EN11	Operational activity in, or adjacent to, protected areas and areas of high biodiversity value	See Corporate Social Responsibility/Climate and the environment/Biodiversity, Landscape	Yes	
G4-EN12	Description of significant impacts on biodiversity in protected areas and areas of high biodiversity value	See Corporate Social Responsibility/Climate and the environment/Biodiversity, Landscape	Yes	
	Landsc	ape		
G4-EU4	Length of overhead and subterranean transmission and distribution lines	See Corporate Social Responsibility/ Climate and the environment, table under Landscape	Yes	
	Materia	l consumption		
G4-EN1	Materials used by weight or volume	See Corporate Social Responsibility/Climate and the environment, table under Material consumption	Yes	Consumption of packaging is not reported by renewable and non- renewable materials Inventories of solid and liquid PCBs are not reported by low or high content
	Climate	risk and adaptation		
G4-EC2	Financial implications and other risks and opportunities for the organisation's activities due to climate change	See Corporate Social Responsibility/Climate and the environment/Environmental impact of Statnett's operations, Climate risk and adaptation	Yes	Financial implications are not reported It is planned to carry out a thorough analysis in 2018 as a basis for reporting in this area.

<b>GRI</b> indicator	Description	Reporting	Verified by external third party	Omissions
G4-EN15	<b>Greenh</b> Direct Greenhouse Gas (GHG) emissions (Scope 1)	ouse gas emissions from Statnet See Corporate Social Responsibility/Climate and the environment, table under Greenhouse gas emissions Emissions factors from: Vehicles; Defra, OFVAS and SSB Helicopters; Defra SF <sub>6</sub> ; UNFCCC global warming potential	t <b>'s operatio</b> Yes	ns
G4-EN16	Indirect Greenhouse Gas emissions (Scope 2)	Back-up power plants; emissions factors in line with factor from Defra See Corporate Social Responsibility/Climate and the environment, table under Greenhouse gas emissions Emissions factors from:	Yes	
G4-EN17	Other indirect Greenhouse Gas emissions (Scope 3)	Electricity; NVE See Corporate Social Responsibility/Climate and the environment, table under Greenhouse gas emissions Emissions factors from: Helicopters; Defra Aeroplanes; SAS data provided by Egencia	Yes	
G4-EN18	Greenhouse Gas emissions intensity	See Corporate Social Responsibility/Climate and the environment, table under Greenhouse gas emissions	Yes	
G4-EU5	Allocation of CO <sub>2</sub> emission allowances or equivalent	See Corporate Social Responsibility/Climate and the environment, table under Greenhouse gas emissions	Yes	
G4-EU12	Transmission and distribution losses as a percentage of total power transmitted	See Corporate Social Responsibility/Climate and the environment/ Greenhouse gas emissions from Statnett's operations Only technical loss is relevant Transmission loss as a percentage of total power transmitted is calculated as transmission loss divided by total power transmission in the transmission grid. Total power transmission is estimated as total power imports + total domestic power generation (adjusted for power production used locally outside the transmission grid)	Yes	
G4-EN30	Significant environmental impacts of transporting products and other goods and materials used for the organisation's activities, and transporting members of the workforce	See Corporate Social Responsibility/Climate and the environment/Greenhouse gas emissions from Statnett's operations	Yes	

<b>GRI</b> indicator	Description	Reporting	Verified by external third party	Omissions		
G4-EN23	<b>Pollutic</b> Total weight of waste by type and disposal method	See Corporate Social Responsibility/Climate and the environment/table under Waste type	No	Reporting routines are inadequate. A system for collecting statistics will be established in 2018		
	Electro	magnetic fields				
G4-PRI1	Percentage of significant product and service categories for which health and safety impacts are assessed for improvement	See Corporate Social Responsibility/Climate and the environment/Electromagnetic fields	Yes	This indicator is not reported as it is not relevant. Separate indicator for third-party safety will be assessed		
	SUPPL					
G4-DMA	Evaluation of management approach	See Corporate Social Responsibility/Supplier monitoring	Yes	Evaluation of separate approach and results relating to inadequate compliance will be included in 2018		
G4-EN32	Percentage of new suppliers that were screened using environmental criteria	See Corporate Social Responsibility/Supplier monitoring Reported for all procurements above NOK 500,000	Yes	Work is being performed on implementing a system for consolidation of data that can confirm the percentage of suppliers that is screened		
G4-LA14	Percentage of new suppliers that were screened using labour practices criteria	See Corporate Social Responsibility/Supplier monitoring Reported for all procurements above NOK 500,000	Yes			
G4-SO9	Percentage of new suppliers that were screened using criteria for impacts on society	See Corporate Social Responsibility/Supplier monitoring Reported for all procurements above NOK 500,000	Yes			
	SMART SOLUTIONS					
G4-DMA	Evaluation of management approach	See Corporate Social Responsibility/Smart solutions	Yes	The results of digitalisation and evaluation of results for the three categories will be included in 2018. Considering establishing a GRI indicator for 2018		



Statsautoriserte revisorer Ernst & Young AS

Dronning Eufemias gate 6, NO-0191 Oslo Postboks 1156 Sentrum, NO-0107 Oslo Foretaksregisteret: NO 976 389 387 MVA Tlf: +47 24 00 24 00 Fax: +47 24 00 24 01 www.ey.no Medlemmer av Den norske revisorforening

To the Board of Directors of Statnett SF

## Independent assurance report – Statnett's reporting on corporate social responsibility 2017

We have performed an independent verification of Statnett's reporting on corporate social responsibility for 2017 (the Report). We have assessed if the information being presented in the Report is based on relevant criteria from the guidelines for sustainability reporting from the Global Reporting Initiative option "core" (GRI G4). Controlled information is shown in the company's overview of reporting on GRI G4 in the GRI index.

#### Management's responsibility

Statnett's management is responsible for the selection of the information and collection of the data for presentation and for the preparation of the Report in accordance with the criteria of GRI G4.

#### Our Independence and Quality Control

We have complied with the independence requirements of the Norwegian Law on Auditors and Auditing and other ethical requirements from the Code of Ethics of the Norwegian Institute of Public Accountants which are founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

We apply International Standard on Quality Control (ISQC1) "Quality control for firms that perform audits and reviews of financial statements, and other assurance and related services engagements" and accordingly maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

#### Auditor's tasks and duties

Our task is to issue an independent report to the Board of Directors on the Report based on our work. Our work is conducted in accordance with ISAE 3000 "Assurance Engagements Other than Audits or Reviews of Historical Financial Information". The standard requires that we plan and perform procedures to obtain limited assurance that the information in the Report is prepared and presented in accordance with relevant criteria for sustainability reporting in accordance with GRI G4 and does not contain material errors.



Our work has consisted of the following procedures:

- Review of Statnett's process for the preparation and presentation of the Report to provide us
  with an understanding of how corporate social responsibility is ensured in practice within the
  business
- Interviewed those in charge of reporting to develop an understanding of the process for the preparation of the Report
- Verified on a sample basis the information in the Report against source data and other information prepared by Statnett
- Assessed the overall information in the Report against the criteria in GRI G4 including a review
  of the consistency of information against the GRI index

In our opinion, the evidence obtained is sufficient and appropriate to provide a basis for our conclusion.

#### Conclusion

Based on our work, nothing has come to our attention that causes us to believe that the Report, in all material respects, is not prepared and presented in accordance with the GRI G4, and that the information in the Report contains material misstatements. Indicators covered by our assurance report are listed in the GRI index.

Oslo, 12 April 2018 Ernst & Young AS

Finn Espen Sellæg State Authorised Public Accountant (Norway)

(This translation from Norwegian has been made for information purposes only.)