

TenneT Holding B.V.

Integrated **ANNUAL REPORT**

2017





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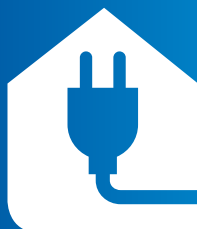
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* These sections reflect the director's report as mentioned by Part 9 of Book 2 of the Dutch Civil Code

AT A GLANCE

2017

Grid availability



99.9986%

POWER OUTAGE

Our security of supply was affected by a power outage at our Amsterdam Hemweg substation in January

INNOVATIVE TECHNOLOGY

We teamed up with Sonnen, Vandebron and IBM to develop a blockchain solution to manage the balance between electricity supply and demand

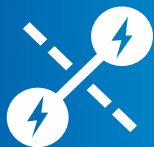
Stakeholder meetings
(public events)



756

STAKEHOLDER MEETINGS

Interconnectors



13



Investments (EUR million)

1,770

Our reputation survey showed that our overall reputation is good to very good

OVERALL REPUTATION

NORTH SEA WIND POWER HUB

We created a 5-party consortium to realise our long-term vision for the large-scale generation of wind energy in the North Sea

Number of employees

3,187



Lost Time Incident Frequency

2.5

10 YEARS OFFSHORE

10 years ago we started connecting offshore wind farms to the onshore grid





LETTER from the CEO

Mel Kroon

CEO and Chair of the Executive Board

“Europe is on a fast track from fossil fuels to renewable energy sources. As the first European cross-border transmission system operator, we need to think carefully about how we can facilitate this and build a masterplan for a secure and stable energy market.”

It is just over two years since most of the world's countries signed the historic Paris Climate Agreement. We are now on the brink of a new energy era, requiring a fundamentally redesigned system. TenneT is well positioned at the centre of this technical, industrial and societal change.

Society's demand for sustainably generated electricity is enormous. So is the potential for the wind, solar and bio mass energy sources used to produce it. Fortunately, as the market matures, the costs of these renewable energy sources, especially solar and wind, is declining sharply. Now is the time to forge ahead, bringing together rising demand and increasingly affordable supply. As an electricity grid operator, we are thinking carefully about how we can accommodate this change in our system, and create a masterplan that sustains a secure and stable market for the future.

We need a new plan because for decades society has relied on the same relatively less complex and linear system: transporting electricity from where it is generated – in a fossil fuel-powered plant – to where it is consumed. Now, in the world of renewable energy, electricity can be generated from many sources at countless locations. These range from wind turbines on the North Sea to solar panels on the roofs of home energy 'prosumers', who now increasingly take part in the grid. In addition, there are increasing possibilities to store electricity in home batteries and those of electric vehicles.



Connecting all these power sources to the grid, bundling the electricity and transporting it reliably across land and sea, involves fundamentally different challenges and skills, and requires such things as new -high- capacity power lines, constructed over long distances. That means we need to invest more than ever in the expansion of our grid, both onshore and offshore, while coming up with ever-more ingenious ways to transport electricity with minimum disrupt to the environment and local communities.

New economic reality

As well as a paradigm shift on the technical front, today's new energy landscape demands new economic thinking. We are moving from the old model, where supply and demand are solely driven by price, to one where natural forces dictate electricity supply. Although we might like to, we can't control the weather. Since it's never equally windy or sunny in all places at the same time, we need more and smarter infrastructure to ensure we can store large amounts of energy and connect locations where production is abundant with those where electricity supply is scarce.

To contribute to this change, TenneT expects to invest approximately EUR 28 billion over the next 10 years in onshore and offshore grid infrastructure across the Netherlands and Germany. This grid expansion will ensure a reliable supply of renewable energy throughout Europe in general and in TenneT's service areas in particular. Important projects include SuedLink, the North-South connection in Germany, and the construction of new offshore connections in the Dutch North Sea.

In all cases, we carefully consider how and where to invest. In decades to come, it's important that we can look back and feel satisfied that we made smart and efficient investments, and avoided projects that were of relatively little benefit to society. These smart decisions are not just about building grid connections to large wind and solar farms: they're about being able to transport vast quantities of energy produced to consumers of electricity in an integrated, cross-border system.

Security of supply

Autonomous, local systems will not be able to deliver the near-perfect availability on which society relies and to which TenneT is committed. Guided by our mission, we work tirelessly to ensure a reliable, uninterrupted electricity supply now and in the future. The rare and regrettable instances when outages do occur, such as the January 2017 incident

at our Hemweg 150 kV substation in Amsterdam, show just how important our role is.

While renewable energy sources have really just started to take off, TenneT has already built up considerable experience of connecting offshore wind, being a frontrunner compared to other TSOs in Europe. Ten years ago, we started connecting offshore wind farms to the onshore grid and during this complex and challenging journey we have gained valuable knowledge and expertise that we can use for new grid connections, both in the Netherlands and in Germany.

Cross-border vision

To realise our long-term vision for the large-scale generation of wind energy in the North Sea, we created a 5-party consortium that includes: TenneT Netherlands, TenneT Germany, Energinet dk, Gasunie and the Port of Rotterdam. Its purpose is to accelerate the development of the North Sea Wind Power Hub – a European renewable electricity system to be built in a central location in the North Sea. The scale and vision of this hub is unprecedented and clearly demonstrates the potential of the North Sea as a sustainable source of wind power for Europe.

The further integration of the north-west European electricity markets and therefore closer collaboration among TSOs and governments will help facilitate the transition to a more sustainable electricity supply system. This will also enable us to cope better with larger amounts of weather-dependent wind and solar energy.

Integration makes sense because no single country can effectively achieve the shift to renewable energy on its own. Electrons don't recognise geographical borders, so there is little sense in thinking on a national scale. What is needed is a cross-border regional vision with a harmonised system of support and regulation. We are grateful the governments of the Netherlands and Germany are taking this line, and we advise other national governments to follow suit.

Smart solutions

To serve society in this challenging energy future, we need smart, innovative systems that efficiently match demand for electricity with fluctuating supply. This calls for intelligent software solutions. Last year, we joined forces with Sonnen, Vandebron and IBM to develop a blockchain solution to manage the balance between electricity supply and demand in the Netherlands and Germany, 24/7.



This innovative technology is the next step in enabling decentralised flexible energy sources to play a role in the increasingly data-driven balancing management of the electricity grid.

People

Safety – for customers, employees, and contractors – is always a priority, for everyone at TenneT. We were deeply saddened by three fatal accidents related to our activities in 2017. As we strive to prevent such tragedies, we will further improve our safety leadership and continue to work to raise safety awareness among all our managers and staff, whether directly employed by us or not.

Finally, one of the reasons we are able and trusted to be at the centre of the energy transition is our strong historic performance over the years. I wish to express my sincere gratitude to all our employees for everything they achieved in 2017. It is thanks to their commitment and tireless work that TenneT can provide a secure and reliable supply of electricity, today and in the future, 24/7.

Fittingly, as we enter this new energy era, 2018 marks TenneT's 20th anniversary. This is an opportunity to celebrate the spectacular growth and reliability we have seen over the past two decades. The 20th anniversary year of TenneT also is a good moment to step down as CEO and, after 16 years, to pass on the helm to a new leader. It has been, and it still is, a privilege and pleasure to work for TenneT.

TenneT has a great future ahead, facing challenges in the further integration of the European electricity markets, the ongoing digitization of the electricity system and the expansion of the infrastructure needed to cope with the vast amounts of sustainable electricity. The Supervisory Board has started the search for a successor and I will remain in my role until this process has been completed in order to secure a smooth transition.



Mel Kroon

CEO and Chair of the Executive Board



Profile

TenneT is Europe's first cross-border grid operator. We operate, maintain and expand the high-voltage grid in the Netherlands and a large part of Germany. We are committed to providing a secure and reliable supply of electricity, today and in the future, 24 hours a day, 365 days a year. That means we transport electricity over 22,500 kilometres of high-voltage connections, from wherever and whatever source it is produced, to 41 million end-users while keeping electricity supply and demand in balance at all times.

We transport electricity across borders, connecting countries and ensuring the power supply on which we all depend. As we do this, we work tirelessly to meet our stakeholders' needs by being responsible, engaged and connected.

The vast majority of our activities are regulated by the ACM in the Netherlands and the BNetzA in Germany. We have three regulated tasks:

- (1) the transportation of electricity,
- (2) system services for maintaining the energy balance, and
- (3) market facilitation.

We transport electricity

The high-voltage grid is the backbone of the electricity supply system. It is used for the transport of large quantities of electricity over long distances. Electricity generated at sea, for instance, is transported via subsea cables and then connected to the high-voltage grid. We are a key player in the electricity supply chain.

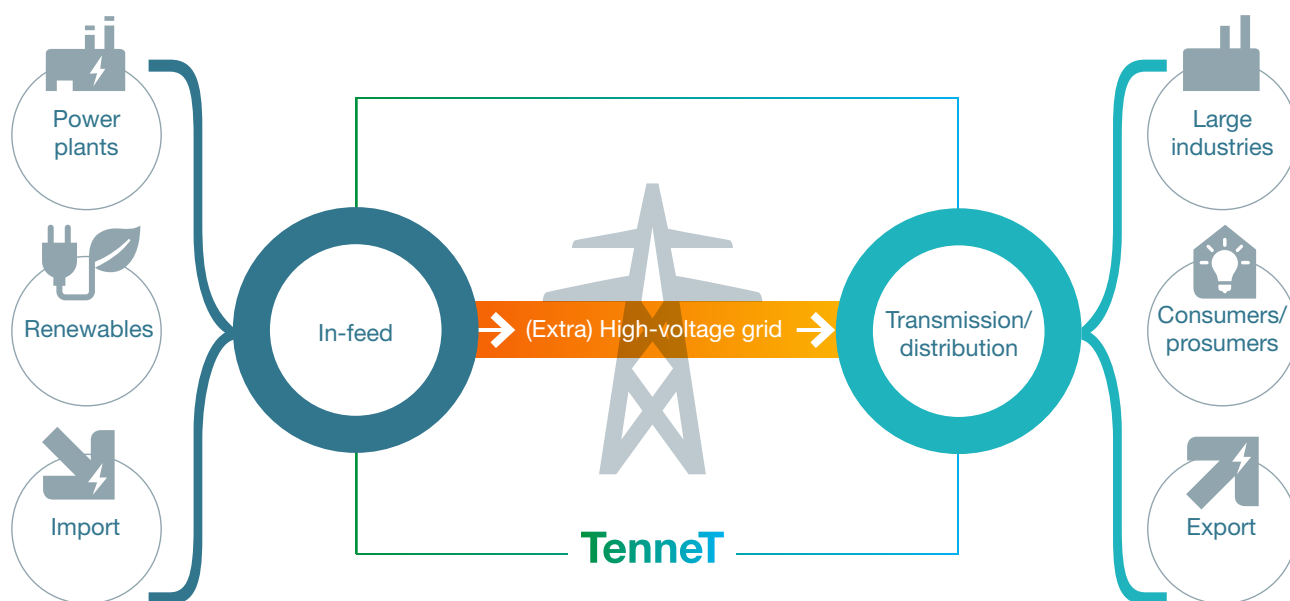
This chain consists of grid operators and producers of electricity from both conventional and fast-growing renewable energy sources that feed in to our grid as well as large users of electricity.

Because wind farms and power plants are often far away from where electricity is used, we need to carry it over large distances without incurring major losses on the way. To achieve this, we transport electricity at very high voltages: 110 kV and higher in the Netherlands and 220 kV and higher in Germany.

Our high-voltage grid is connected to regional and local distribution grids managed by a large number of other grid companies, so-called distribution system operators (DSOs). It is also connected to large industrial customers and prosumers, i.e. energy consumers simultaneously acting as producers. For maps of our onshore and offshore high-voltage grid, [click here](#).



TenneT in the supply chain



Energy transition

Our track record is solid with our grid being available 99.9986% of the time during 2017 – even though physically bringing supply and demand of electricity together is far more complex than it used to be. While global electricity demand keeps increasing, so too does the demand for power from sustainable and clean sources – such as wind, solar, bio mass and tidal, which are often located in remote areas, such as on the North Sea. Bringing it onshore and then transporting it over vast distances across land is a challenging task. This switch from traditional to renewable energy sources – often called the ‘energy transition’ – is currently the biggest challenge faced by the energy sector in general and grid operators in particular.

Maintaining the balance between supply and demand

As electricity is fed into the grid, we need to carefully balance the level of electricity supply with demand. Since electricity cannot be stored in large quantities, continuous adjustment of electricity supply and demand is needed

in order to ensure security of supply. To do this, we have national control centres in the Netherlands and in Germany, where supply and demand are monitored and balanced 24 hours a day, seven days a week.

Market facilitation

Electricity knows no geographical borders, and we believe north-west Europe is better served by an integrated electricity market. As such, we have extensively connected our electricity grid with the countries around us. In doing so, we help establish a single market that guarantees a reliable electricity supply at a fair price.

Non-regulated activities

In addition to our core tasks, we are involved in a limited number of so-called non-regulated activities. These either help to ensure that the energy market operates smoothly and efficiently, or are ancillary to our regulated activities by making better use of existing assets. For a full overview of our group structure [click here](#).

Our mission, strategy and value creation

As a grid operator, we have an essential role and a major responsibility. We are driven by our desire to ensure that all of the Netherlands and a large part of Germany have a reliable, secure and high-quality electricity supply. This is part of **our mission**.

Security of supply is our biggest concern. We consider it is safer and more reliable for our grid to be linked into the wider north-west European (NWE) network. This makes the supply of power not only more reliable, flexible and stable, but also more cost-effective for consumers. Encouraging this integration of the European market, and facilitating its evolution, is a core part of **our vision**. This is particularly important as more and more renewable energy flows into the grid. It makes the market more complicated to manage and design, requiring more innovation and cross-border collaboration.

For more detailed information on our mission and vision, [click here](#).

Strategy

To succeed in our mission, we developed a fitting strategy. Our overarching objective is to deliver value for our stakeholders and we aim to realise this through four strategic goals:

This report is structured following these strategic goals. Based on our mission and strategic goals, we have set seven strategic priorities which we believe will best help us realise these goals.

Strategic goals



Enhance the flexibility and resilience of our transmission grid to ensure security of supply

To manage the rapid rise of renewable energy sources, improve our ability to balance power, ensure continuous voltage control and relieve grid congestion, we apply market-based solutions that improve supply and demand flexibility. We will also use software and possibly hardware solutions, such as developing storage technology.

Advance the use of data and analytics

To gain insight into the renewables load feeding into the grid and improve our forecasting to ensure security of supply, we are collecting and enriching electricity and electricity-related data, which will also help us drive market integration.

Drive integration of the NWE electricity market

We work closely with other TSOs on various topics, including market design, market coupling and regional security centres, to drive the further integration of the NWE electricity market.

Anticipate and address what society wants and needs through dialogue and innovation

We actively engage with society and respond to society's needs and concerns with innovative developments such as transmitting electricity underground, dynamic line rating and high temperature super conductors.

Maintain access to capital markets and equity capital

The size of our investment programme requires ongoing financing and, given the regulatory uncertainties, it also requires flexible access to equity.

Pursue operational excellence

We optimise the efficiency of our capital expenditures (capex) and operational expenditures (opex) through smart investment solutions and keeping operating costs low.

Pursue organisational excellence

We do this by creating a performance culture, organisational flexibility and best-in-class safety performance.

Value creation

Our stakeholders play a central role in our long-term value creation. The interactive value creation model summarises the input we use and the added value we create for our stakeholders through our activities. Furthermore, all the elements in our interactive value creation model are linked to the respective sections of this report which provide further details on each element.

Our culture plays an important role in our activities. As such, we strive to hold ourselves to the highest **values** of quality and integrity.

Quality requires the highest standards of safety in everything we do.

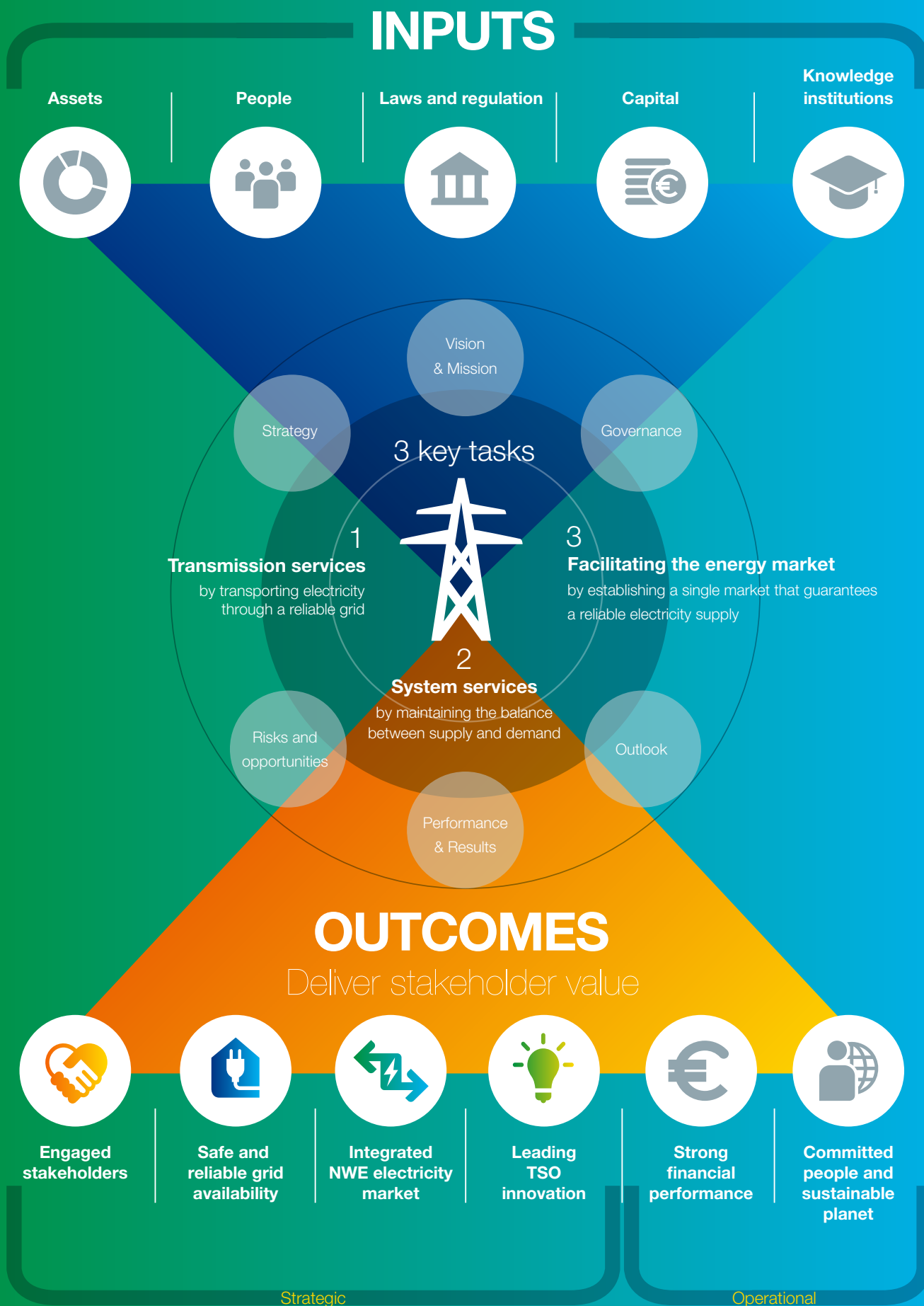
Integrity means being open, honest and respectful in the way we serve society, particularly local communities, partners and employees.

Our brand values

The TenneT brand is built on a commitment to be **responsible, engaged** and **connected**. This is our promise to the outside world, describing how we serve our stakeholders and how we want them to see us.



Value creation model



Our stakeholders

We take responsibility, engage with our stakeholders and connect with them to serve our common interests. We define our stakeholders as those people or groups who are affected by our actions and who have an effect on our organisation and services. Our relationship with them may be defined by law (shareholders, governments, political parties and regulatory bodies), by internal or external cooperation (employees, suppliers, debt investors and rating agencies) or by the nature of the services we provide (customers, the media, NGO's, local communities, and other European TSOs).

Engagement with our stakeholders

Customers

- Customer events
- Customer committees
- Market review reports
- Meetings with project partners (e.g. DSOs, suppliers, industry partners)
- Pilots on e.g. blockchain and improvement of RES forecasting

Governments, political parties and regulatory bodies

- Collaboration with the relevant ministries
- Various bilateral and multilateral talks
- Parliamentary face-to-face meetings
- Close cooperation with state and provincial governments
- Regular contact with regulatory bodies
- TenneT Virtual Vision

Local communities

- Quantitative and qualitative research
- Local community sessions on project planning and safety during building phase
- Information and experience centres
- Student programmes
- Project newsletters
- Project websites and social media

Media

- Press releases, press events and public performances
- Frequent contact with journalists
- Media monitoring and analysis
- Social media

Debt investors and rating agencies

- Roadshow and meetings with financial investors
- Regular contact with credit rating and sustainable rating agencies
- Yearly meeting with all relationship banks

Other European TSOs

- Presidency of ENTSO-E
- Participation in consultative committees in ENTSO-E
- Regular meetings with other TSOs particularly in Germany
- Regular CFO meetings with other TSOs
- North Sea Wind Power hub consortium

Suppliers

- Competitive and fair tender and contract negotiations
- Strict safety and high CSR standards
- Market consultations, meetings and negotiations
- Member of UN Global Compact (UNGC) and mandatory supplier code of conduct
- CEO meetings
- Safety Culture Ladder (SCL) certifications
- Dialogue on performance and safety with top suppliers

Employees

- Training and education
- Intranet and in-company magazine
- Formal and informal employee events
- Health and vitality programmes
- Leadership programmes and meetings
- Good working environment
- Frequent contact with Works Council

NGOs

- Close cooperation with Natuur & Milieu, Stichting de NoordZee and Limburgs Landschap
- Agreement on a social investment with Nationale Park de Hoge Veluwe
- Extensive dialogue with all national and local environmental NGOs on our projects
- Member of the Renewable Grid Initiative (RGI)

Shareholders (corporate and projects)

- Approval of investment proposals
- Quarterly meetings on past performance and future capital needs
- Project updates
- Extensive reporting



Materiality analysis for this report

Our dialogue with stakeholders helps us identify the topics they find most relevant. To define the content for this year's integrated annual report we assessed our interests and those of our stakeholders and analysed them based on the level of impact they had.

A materiality analysis is fundamental to integrated reporting as it ensures that we meet the level of transparency our stakeholders expect. The fact that we report on selected topics that are material to our business, does not mean we do not manage other non-reported aspects. Our corporate social responsibility (CSR) policy and activities are broader and are not limited to the outcome of the materiality analysis.

We conducted our materiality analysis according to the Global Reporting Initiative (GRI) standards for sustainability reporting. We translated the generic aspects of GRI into topics relevant to TenneT, such as grid losses and community engagement. We asked our stakeholders to indicate the relevance of a certain topic based on the influence of the topic on stakeholder assessments and decisions. The significance of TenneT's economic, social and/or environmental impacts is determined by internal stakeholder input and confirmed by the discussions in the CSR board.

The results of the external stakeholder survey are plotted on the vertical axis, while the results of the internal stakeholder survey are plotted on the horizontal axis of the materiality chart.

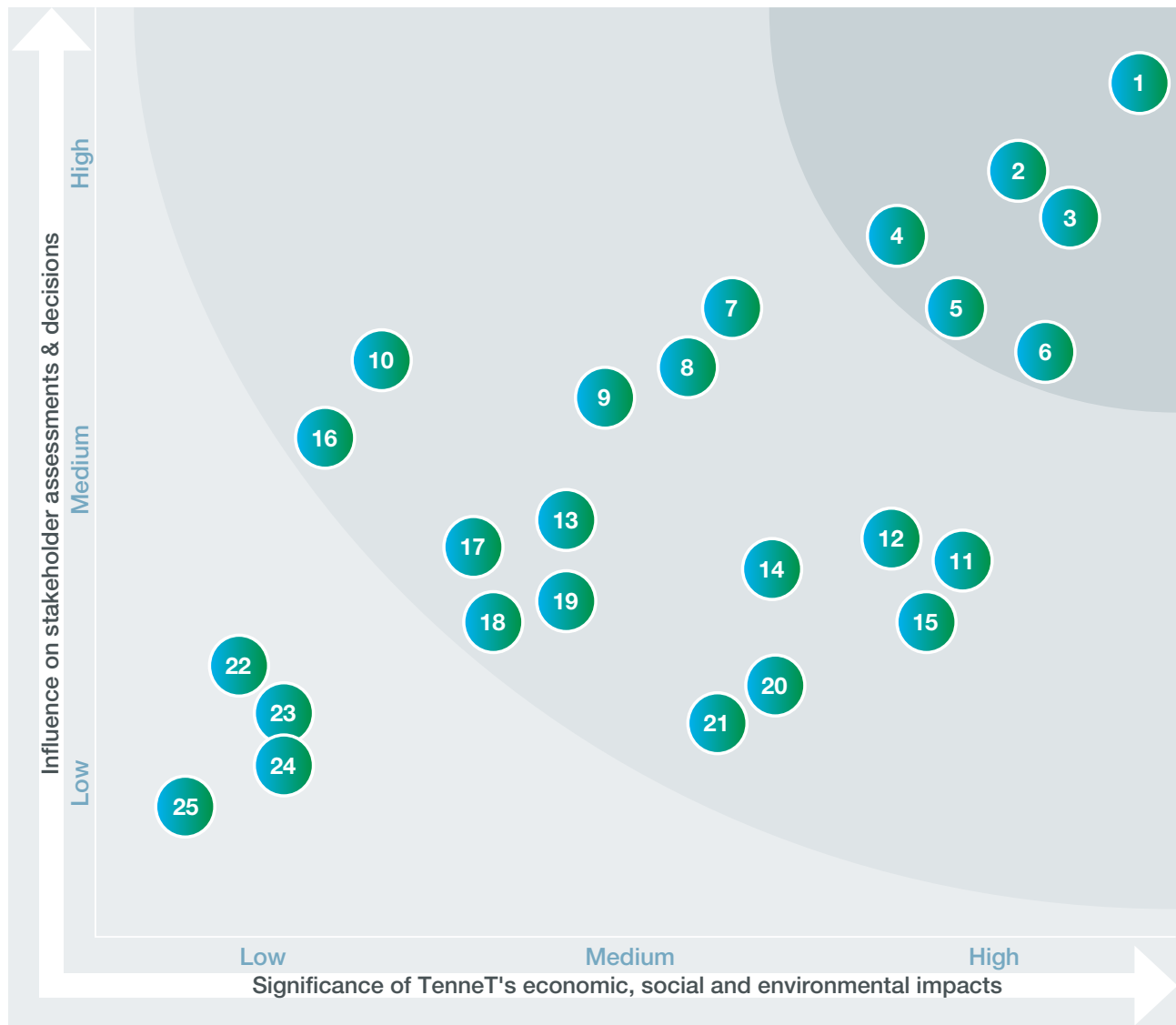
The outcome of this year's materiality assessment clearly shows six topics that remain most material to our stakeholders, with grid availability remaining the most material topic for TenneT, alongside investments, the NWE electricity market, community engagement, financial impact and safety. Each material topic is reported in the 'Strategic performance' section of our annual report.

The topics ranked in the middle category are reported in the 'Operational performance' section. For more information on some of the less material topics, please visit our [website](#).

We also report our contribution to the newly developed United Nations Sustainable Development Goals (SDGs). The United Nations launched 17 goals to end poverty, protect the planet, and ensure prosperity for all as part of a new sustainable development agenda. Governments, businesses and NGOs are challenged to contribute to those goals where they feel they can have the most impact. We asked our stakeholders which of the 17 goals they felt TenneT could make a difference to. From this, we identified five goals: SDG 8 - Decent work and economic growth, SDG 15 - Life on land, SDG 7 - Affordable and clean energy, SDG 13 - Climate action and SDG 9 - Industry, innovation and infrastructure. TenneT's contribution to these goals is described in the 'Strategic performance' section of this integrated annual report. For more information on the United Nations Sustainable Development Goals, please visit their [website](#).



Materiality



- | | | | | |
|-----------------------------|---------------------------|---|-----------------------------------|------------------------------------|
| 1 Grid availability | 6 Safety | 11 Financial impact | 15 Customer care and satisfaction | 20 Diversity and equal opportunity |
| 2 Investments | 7 Innovation | 12 Financing | 16 Biodiversity | 21 Employment |
| 3 NWE electricity market | 8 Connecting citizens | 13 Procurement practices & supplier assessments | 17 Human rights | 22 Tax transparency |
| 4 Community engagement | 9 Environmental Incidents | 14 Regulatory framework | 18 Health | 23 Electromagnetic field |
| 5 Societal financial impact | 10 Carbon footprint | 19 Training and education | 24 Board remuneration | 25 Copper theft |

Material topics covered in this report
 Other topics covered in this report
 Other non-material topics covered on our website



OUR PERFORMANCE

In 2017

Strategic performance

Our performance in 2017 is split into our strategic performance and our operational performance. Our strategic performance is structured following our four strategic goals. Our operational performance includes our financial and non-financial results.

Deliver stakeholder value

TenneT plays a vital role in society. Our work makes a fundamental difference to the people living and working in the areas we serve and involves a wide range of stakeholders. These include our shareholder, local communities, our employees, regulators, investors, NGOs, politicians, the media, customers, suppliers and other European TSOs.

Because we operate in a stakeholder arena with many different, sometimes conflicting, interests at play, it is important to maintain a relationship with stakeholder groups and see where and how we can deliver value. Our goal is to live up to our values, i.e. being responsible, engaged and connected, when addressing our stakeholders' concerns. Creating acceptance and understanding for what we do within the highly complex and relevant energy sector is very important to us.

With many stakeholders to interact with, transparent communication and constructive dialogue are vital to us. We need to properly understand each party's expectations and be able to update them on our activities, inform them of our plans and address their concerns as best and as early as we can. As our range of stakeholders is very diverse, we need to consider each group's questions, concerns and needs individually.

This diversity requires a proactive and coordinated approach to stakeholder management and communication – which we take very seriously.

This approach can be summarised as follows:

1. Understand background context and stakeholder concerns

Before we contact stakeholders, we do our homework. We find out as much as we can about a specific situation to understand the challenges and background context.

2. Take the different interests into account

Dialogue with stakeholders at an early stage helps us understand the different interests and perspectives we need to address. It's up to us as experts to provide insight into the effects of complex issues and the associated decisions.

3. Make every effort to create value for society and stakeholders

TenneT strives to create value for stakeholders, at a European and national level by guaranteeing security of supply and at a project level by implementing (innovative) solutions for (local) needs and issues, where possible.



4. Telling a clear story, with transparent roles and responsibilities

It is essential that all stakeholders clearly understand who we are, what we do and why we do it. We need to explain that we have a legal responsibility to perform our work – which concerns critical national infrastructure – and that our projects have a long lead time. We also aim to explain the specific purpose and importance of everything we do.

5. Reliable and responsible from start to finish

We aim to carry out our social duty with respect for the environment and taking responsibility for all our stakeholders. The consequences of our actions are central to our considerations, even when we make decisions that people may not (entirely) support.

Measuring and monitoring

To know if we are on the right track and whether we should continue or maybe change the way we work, we measure and monitor our performance, and the perception thereof, on a regular basis. We test opinions and sentiments by conducting stakeholder satisfaction surveys – with employees and customers – and we also monitor and analyse our media exposure, and make a real-time analysis of social media. We conducted a qualitative corporate reputation survey in late 2017 among our stakeholders in the Netherlands and Germany, a repeat of the one we carried out in 2015.

The survey explored our reputation in terms of performance, appeal, trust and responsibility. It examined our image and whether our brand values are recognised by stakeholders. The survey also tracked how our reputation was perceived in the Netherlands and Germany between 2015 and 2017.

We are proud of the results of this survey, which have shown that we currently have a fairly good to very good reputation. In the Netherlands, our stakeholders see an improvement over time; we have developed a stronger outward focus, have become more sensitive to the interests of others and have a more constructive attitude. We recognise, however, that this is an ongoing process and is not sufficiently embedded yet among all TenneT teams and employees.

In Germany it became clear from many survey respondents that TenneT is regarded as the country's leading TSO. We are seen as the leading force behind innovative solutions that facilitate the energy transition. Scepticism among our stakeholders is growing, however. Some respondents fear that the planned phase-out of nuclear power by 2022 will be obstructed by technical challenges, including the grid not being ready and storage solutions still needing to be developed.

The respondents of the survey acknowledge that TSOs face multiple challenges in the energy transition. Many also described positive experiences with TenneT, where our employees are considered as friendly, competent and proactive at finding good solutions.

Although we believe we are on the right track, we need to keep improving. And that's important to keep in mind, as the energy transition is not something we can achieve on our own; we rely on a transparent relationship with our stakeholders that is based on trust.



DELIVER STAKEHOLDER VALUE

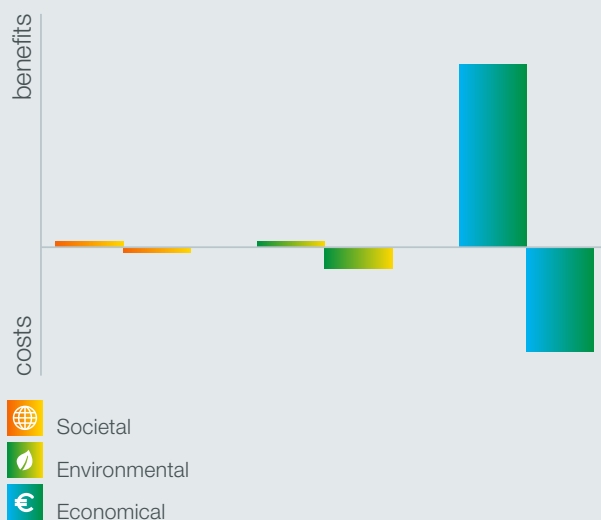


True Value Doetinchem Wesel

The new interconnector between Doetinchem in the Netherlands and Wesel in Germany is essential to ensure the continued development of the North West European electricity market, to safeguard security of supply and to be able to exchange sustainable electricity. Construction started in 2015 and the interconnector is expected to be fully operational by late 2018. When completed, the interconnector will be 57 kilometres long and will have a physical transport capacity of 1,500 MW. To achieve this, we have installed 108 Wintrack pylons and carried out other construction in the region for over two years.

TenneT is fully aware of the impact, both positive and negative, that the construction of this interconnector has on society and the environment – an impact that will continue when it is up and running. Being honest about the impact of this new interconnector is crucial in our dialogue with stakeholders.

Monetised impact (indicative)



Maria van der Heijden, Director CSR

Netherlands: "Infrastructure companies have a vital role to play in the transition towards a sustainable economy. Being transparent about their financial, ecological and social impact is for the benefit of companies and society as a whole."

As such, we carried out a case study last year into how to monetise the impact of one of our smaller projects in Apeldoorn, [link](#). This year we decided to take the next step and carry out a case study into how to monetise one of our major projects, i.e. the new Doetinchem-Wesel interconnector. Because the methodology is still being developed, we are being transparent about the calculation method we are using and have posted this on our website. The outcome of this case study should not be seen as absolute truth, but as an indication of the most material impact.

Otto Jager, Chief Financial Officer TenneT:

"As a company that serves society, we understand that the impact of our projects is multi-layered and not merely financial. With these studies, we aim to be equally transparent about our financial and non-financial impact."

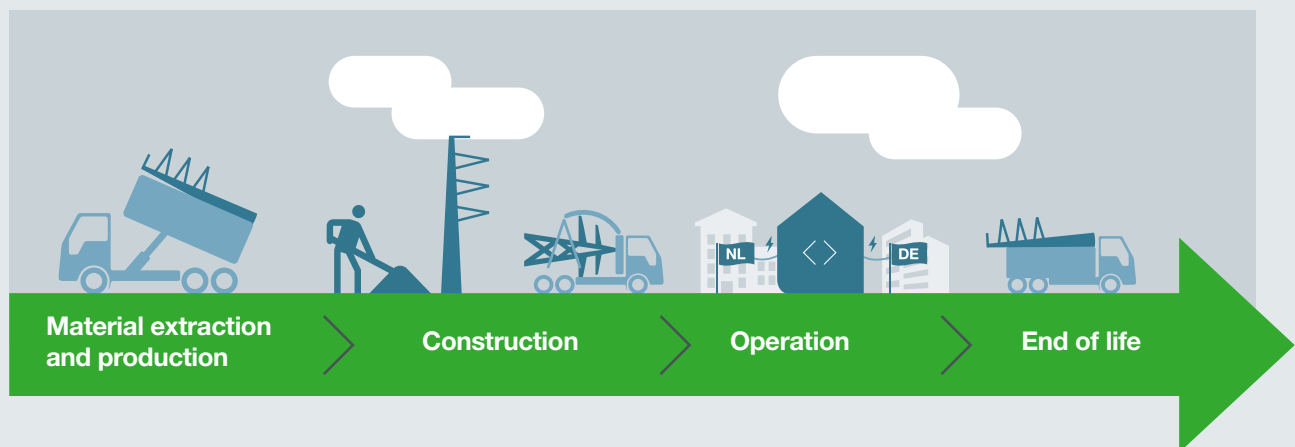
For this case study, we focussed on the Dutch part of the new interconnector and the impact of the project on Dutch society compared to a situation with no new interconnector. The case study considered all the steps in the value chain, i.e. raw material extraction and production, the construction phase, the operation of the high-voltage connection and end of life.

In each step of the value chain, we determined the financial, social and environmental impact based on the most material aspects. The activities for each of these aspects were then translated into euros, which resulted in positive and negative social, environmental and financial volumes.

The results of the case study show that the economical impact is by far most significant. The economic impact includes the employment generated by the construction and operation of this interconnector, the price benefit of this interconnector when it is in operation and the investment costs, which have a negative economical impact for society.

The societal impact is minimal, because the impact of the connection on the living environment can be seen as neutral, since the new connection is replacing an existing connection. For the environmental impact, carbon footprint, material depletion and biodiversity were taken into account. Although the carbon emissions and material depletion have some impact, this is minimal compared to the economical impact. For more information on the assumptions and conversion factors, [click here](#).

True value



Engage stakeholders

We are the company that enables electricity to be delivered to businesses and people's homes, transporting it across land and sea. This is a key role in society.

This role also means we have a big responsibility to society, to behave in a trustworthy, open and honest manner towards all those people whose lives we affect. We do this every day by talking and – perhaps more importantly – listening to our stakeholders. This is essential whenever we plan and execute an infrastructure project.

Meeting society's needs for electricity also means unavoidable consequences for the natural environment – like installing new power lines or constructing underground cables – so we take care to minimise the impact in balance with our business activities.

From the outset, we engage with everyone affected, listening to their questions and needs at an early stage. We make information easily available, take concerns very seriously, explain the consequences based on our expertise and work hard to minimise any negative impact of our work. Ultimately, we are committed to creating a sustainable future for society.

Responsibility includes having high safety standards, which is why we strive to work in the safest way possible, for our own employees but also for those of all our contractors.

Our day-to-day activities can be dangerous, so ensuring everyone's safety as we go about our business is one of our core values and extends to all our stakeholders. Our safety policies influence our employees, contractors and suppliers most directly.

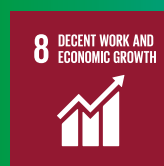
Results

Stakeholder dialogue

Talking and listening to our stakeholders is very important to develop understanding and acceptance. That's why we invest heavily in stakeholder dialogue. Throughout the year, we had 756 public meetings and events with around 18,000 visitors. Although we realise that the outcome of these discussions will not be to everyone's satisfaction, we aim for a transparent process with all our stakeholders, where everyone's views and standpoints are listened to and considered. You can find an overview of all stakeholder activities in 2017 in the 'Other information' section of our report.

We measure the effectiveness of our stakeholder dialogue for our customers, employees and local communities. The customer satisfaction score of 2017 shows a satisfaction of 94% for our German customer base (customers directly connected to our grid). This is in the same range as our last survey in 2015 (95%) and shows that our ongoing customer engagement approach is valued. We did not conduct a customer survey in the Netherlands in 2017, the next survey will take place in 2018.

Our employees expressed how sustainably engaged they are in our two-yearly employee survey. The overall score was 80% compared to 83% in 2015, which is still a relative high level of engagement. More details can be found in the 'Non-financial performance' section of our report. In two of our Dutch projects we asked our stakeholders to give feedback on our stakeholder approach. The score of both projects is 6.8 (on a scale from 1-10) where mainly communication and frequency of communication is valued very much. A general survey in the Netherlands showed that on average citizens value the contact with infrastructural companies that execute large projects on 6.4, which shows that TenneT is performing above average level in her stakeholder approach.



The United Nations Sustainable Development Goal 8 – Decent work and economic growth – promotes sustained economic growth, higher levels of

productivity and technological innovation. Being a crucial player in the energy transition, with an investment portfolio of approximately EUR 28 billion in the next ten years, we create not only economic growth in the countries where we operate, but also in other countries in Europe and even outside Europe. We purchase components, hire contractors and challenge the industry to come up with better solutions to make our grid more efficient and future-proof. Having a future-proof grid is an important economic driver in the countries where we operate.

Our stakeholder vision is based on five clear steps, which are crucial to make our stakeholder dialogue effective. In 2017, we made significant improvements in each of these steps, enhancing the way we interact with society.

Clear storyline

Telling a clear story is fundamental, not only for the experts in the field, but also for the wider public. To check whether the outside world understands what we mean and what we stand for, we asked the Council of Children for advice.

The Council of Children uses the simple and uncomplicated perspective of children to test ideas and opinions. And one of their messages really stuck with us: *“if people know you better, then they’ll like you more and there’ll be more understanding for renewable energy, for the pylons and the cables”*.

This made us realise we could improve our tone of voice and simplify our messages, so we now try to communicate with this in mind. We started with a more accessible brochure, explaining what we do and what we stand for, now and in the future.

Facilitate dialogue

Engaging in dialogue with our stakeholders is important to build understanding and acceptance. The best way is to have face-to-face meetings. We have participated in numerous town hall meetings, discussions and public consultations to explain what we stand for and why our projects are necessary.

In 2017, we concluded a strenuous, but ultimately successful process to discuss the construction of the new high-voltage line between Borssele and Tilburg, a rural area in the Netherlands. Although residents would have preferred underground cabling – which was too expensive in this case – we listened carefully to their concerns and found other ways to blend the over-land connection into the landscape. In the end, everyone accepted the process, with the initially difficult negotiations being settled harmoniously. In our view this example of stakeholder engagement illustrates very well how we believe stakeholder dialogue should be conducted. We have learned from it and will use our learnings as best practice for other projects.



The United Nations Sustainable Development Goal 15 – Life on land – aims to conserve and restore the use of terrestrial ecosystems, such as forests, wetlands, drylands and mountains. Our activities are intricately linked with nature; our assets are located throughout the Netherlands and Germany, often in areas of natural beauty, thereby impacting biodiversity, ecosystems and landscape. At the same time, TenneT benefits from nature; we create visual screening, noise abatement and security areas around our stations. We recognise that our assets have an impact on nature, but we also recognise that we have a unique opportunity to make a positive contribution.

In Germany, we continued with our stakeholder engagement processes for the SuedLink and SuedOst Link – two new high-voltage DC cables connecting mainly renewable energy generated in the North of Germany to consumers across the country, all the way to Bavaria. We were able to overcome significant opposition in a clear and transparent way by explaining the consequences of all alternative solutions. Part of our job is to explain to consumers in southern Germany that the renewable energy they demand cannot be supplied without strengthening the grid by installing high-voltage cables underground. There were intense stakeholder activities for most of our large AC- Projects, too. For example for the start of the building phase of the 380kV line from Ganderkesee to St.- Hülfe and from Dörpen to West - Niederrhein in Lower Saxony, both of which are pilots for partial AC underground. The initial project was highly disputed in the region, but after fierce opposition by several stakeholders in the last years, we now came to a solution that works for all stakeholders.

Continuously improve reputation

A good reputation helps to foster understanding and acceptance, and build trust. One of TenneT's challenges is to explain the dilemmas it faces in building the infrastructure needed to realise the energy transition. One of the ways we do this is with our Virtual Vision facility in Berlin, where we present a 360-degree perspective of our activities. This illustrates in an easily accessible and playful manner the complexities of meeting stakeholder interests and the role TenneT plays in the energy transition.

This facility also gives visitors the opportunity to experience a virtual reality trip to an offshore converter station. Virtual Vision has been very well received since opening in May 2017, with the communications concept winning recognition as the best TSO brand at the CHARGE energy branding conference in Reykjavik.

To be closer to our stakeholders and support our increasing European activities, we opened an office in Brussels in June 2017. This step was greatly appreciated by the European Commission, which encourages our commitment to further contributing to the European Energy Union. Our presence in Brussels was further strengthened with the 2017 election of our operations director Ben Voorhorst as President of the European Association of TSO's, ENTSO-E.

In November, we organised a Europe-wide NGO consultation on our North Sea Wind Power Hub concept at our Brussels office. This gave us crucial input for the earliest stages of the development of this long-term vision for the large-scale exploitation of wind energy on the North Sea.

Improve the communications skills of our organisation

To ensure our own people are better equipped to communicate with our stakeholders, we actively encourage our employees to think like stakeholders. One of the ways in which we do this is using a stakeholder role-playing game we developed that addresses the challenge of managing stakeholders in a made-up infrastructure project. The game presents players with a range of stakeholder interests, possible scenarios and issues that could affect a project. It teaches staff to better anticipate stakeholder needs and introduces them to best practices, so that they learn how to deal with specific, difficult situations.

Monitor and measure the quality of our stakeholder communication

We conducted a first pilot of measuring the effectiveness of the stakeholder approach used in our Randstad-North and Doetinchem-Wesel projects. A survey was conducted at the start of the project and repeated during execution. The results show that our approach is effective, Randstad-North scored 6.8 (on a scale from 1-10) at start and during execution. Doetinchem-Wesel scored 5.7 at start and increased the score to 6.8 during execution. Communication means and measures are valued, especially contact with employees from TenneT is contributing to a better understanding of our projects. Being even more in contact with stakeholders and look from their perspective are the improvement areas coming out of these surveys.

Safety

In addition to investing in dialogue with our stakeholders, we also invest in our safety culture. Safety is a very important value for TenneT in everything we do. TenneT sets high standards when it comes to working safely. In our daily work, in our processes and in our cooperation with our stakeholders. Together we make a concerted effort to achieve our safety mission of zero harm, which means that safety is our number one priority in every activity that we undertake.

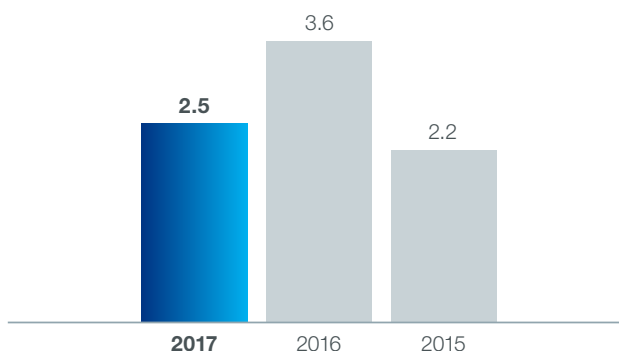
We are building a culture where we encourage safety leadership within TenneT, with a harmonised and integrated approach to safety standards. TenneT strives for a culture among management and staff where safety is intrinsically taken care of. We also extend this to our contractor management, which means that our contractors also work to the same high standards. For this, we use the Safety Culture Ladder (SCL) as a tool to increase safety awareness and enhance safety culture. Not only within our own organisation but also for our supply chain.

Tragically, we had to face three third party fatal incidents related to our activities: one on a shipyard connected to the construction of the BorWin3 platform and two public road accidents during construction activities on our onshore projects in the Netherlands and Germany. TenneT is deeply affected by these fatal incidents. To prevent similar incidents from happening ever again, we are working hard on improving on our safety leadership to raise safety awareness among all our managers and employees, whether directly employed by us or not. We want everyone to take the same level of responsibility and strive to prevent any kind of accident from happening on one of our projects again.



Although we work tirelessly to define and apply our safety regulations, it is still not always possible to embed our 100% safety mindset in every person working across our operations, which includes both internal and external employees as well as contractors. In 2017, we did not achieve the safety targets we set ourselves, our Lost Time Injury Frequency Rate (LTIF) was 2.5, which is above our target of 1.8. This is mainly related to incidents with contractor personnel. Our performance makes us realise that we need to continue with our safety ambition beyond 2018 and we have decided to take some more time to realise our ultimate goal of our LTIF score below one, with target date 2020. For 2018 our target is set at 1.8, which shows the ongoing importance of our safety actions and initiative to include our suppliers in the safety culture journey to jointly achieve a better performance.

LTIF



For more safety figures, please see the additional CSR data report on our [website](#).

CHALLENGE >

Lines and pylons in our landscape are not easily accepted, but they are a necessary part of modern life.

As a large, technical company, we may not always be the best communicators.

Safety is a top priority for our company, but it remains a challenge to realise our ambition of 'zero' harm.

< ACTION

We understand that most people would prefer to see electricity cables laid underground, but this is often impossible from both a cost and a technical point of view. That's why underground cabling is mainly applied in densely populated areas. Otherwise, we try and find other, simpler solutions to blend in with the landscape and minimize intrusion. All this can be very challenging to explain to local residents, but we try to be as transparent and constructive as possible.

However, we are working on this and know we need to get better. Some of our recent efforts have been applauded, but we accept that we are not there yet. Therefore, we will continue to improve our stakeholder approach to make sure we develop understanding and create acceptance for what we do.

We have set ourselves the target to bring our LTIF score below 1 in 2020. Every employee and contractor is expected to contribute to make our working environment truly safe.

Outlook

The recently formed Dutch government aims to reduce CO₂ emissions by 49% by 2030, compared to 1990. This target provides a solid basis for accelerating the current transition to renewable energy, with wind energy as one of the remaining pillars. The government also announced that all of the Netherlands' coal plants shall be closed by 2030. These plans will have a significant impact on our activities and we foresee an ongoing dialogue with the Dutch government in the years ahead on how to make sure we can transport large quantities of electricity in such a way that is both cost-efficient and acceptable to society.

Our short-term focus is on the realisation of the offshore wind power roadmap *Routekaart Windenergie op Zee*. We are well on track to connect the wind farms off the Dutch coast and will be continuing our efforts to make sure we keep to the tight schedule to have all connections in operation by 2023. We are also awaiting the new energy transition legislation for the Netherlands. The new law is meant to update the existing Electricity Act 1998 and Gas Act. It will set clear guidelines for grid operator investments, which will provide clarity to the market.

Around the world, Germany is seen as a visionary with regard to leading the energy transition. Germany has made climate protection one of its priorities in its *Energiewende*, the country's dual shift from fossil fuel and nuclear power to a renewables-based energy system. Germany also pushed hard in July to convince the G20 group of leading industrialised and emerging economies to step up efforts to meet the pledge of the Paris Climate Agreement, keeping all countries but the United States on board. The German government had set itself the ambition to reduce CO₂ emissions by 55% in 2030, compared to 1990, which is still an ambitious target.

Meeting the pledge and the country ambition will remain a challenging assignment because we see obstacles to implementation. The German public is also increasingly aware of how this energy transition affects their lives, raising questions and debate. We play an important role in facilitating these changes and are fully aware that the ongoing discussions are unlikely to decrease or become any easier. However, we see it as our responsibility to be open at all times about the alternatives and implications for society.





ENGAGE STAKEHOLDERS

Safety campaign

At TenneT, safety is of paramount importance. Every day, we are aware of the risks that the construction of a high-voltage connection entails. Our first priority is to ensure that everyone comes home safely at the end of the day. This applies not only to our own employees, but also to the people who live and work around our construction sites. We don't think that wearing a hard hat and shielding potentially hazardous areas is enough and persistently work on improving our safety culture. We make every effort to secure the environment where we work, placing building boards around our construction sites, and controlling traffic to ensure a better overview and therefore safety. In consultation with the municipalities in which we work, we always draw up a traffic plan to ensure the safety of local residents and road users near our construction sites.

Ben Voorhorst, Chief Operating Officer

TenneT: *"We want everyone to go home safely to their families after a working day, each and every day."*

Road safety is so important to us that we recently launched a new campaign 'Are you in the picture?' within the Randstad 380 kV Noord ring project. This campaign will be rolled out nationwide for all projects in the future.

'Are you in the picture?' alerts road users – car drivers, cyclists and pedestrians – about the importance of making themselves visible to trucks. No matter how well equipped trucks are with mirrors and sometimes cameras, there is always a danger that the driver will have a blind spot when manoeuvring. Our campaign also encourages people to always seek eye contact with construction workers. Working with local people in this way should help us prevent accidents, together.

Henri van der Kamp, member Executive

Board Volker Wessels: *"Working together to improve safety is of the utmost importance to all involved. I really appreciate the open and constructive dialogue we have with TenneT on this."*



Secure supply

At TenneT we have a clear and critical task: to keep the lights on for 41 million people across the Netherlands and Germany. This is what we call ‘security of supply’ and it is at the heart of our business.

It's a mission that underpins everything we do, as we deliver electricity to users across 22,774 kilometres of high-voltage cables, above and below the ground, across land and sea.

In the age of renewable – and intermittent – energy supply, it's a task that we must deliver, regardless of varying weather conditions.

As electricity is generated to meet consumer needs, we have to make sure we can fill the gaps in supply or deal with surplus when the weather changes. So, if the wind doesn't blow in one area, we must divert electricity from another

source to meet demand. This can be energy from wind, but also from fossil fuels or sun.

Results

For us, security of supply is not simply a question of building more lines or laying more cables. It is about integrating all types of energy into the system – and making sure that society is served with electricity 24/7.

Although occasional outages will always occur, TenneT is one of the most reliable grid operators in the world with an overall security of supply of 99.9986% in 2017.

	2017	2016	2015
<i>Onshore</i>			
Grid availability	99.9986%	99.9999%	99.9975%
Interruptions	11	6	18
Energy not transported (MWh)	1,072	59	3,824
<i>Offshore</i>			
Grid availability	97.80%	92.00%	92.82%

Our onshore security of supply fell slightly to 99.9986% last year, compared to 99.9999% in 2016. This was mainly due to a power outage in January, caused by a component failure at the Amsterdam Hemweg substation and amongst others disrupted train travel and hospitals for hours. This outage had also the largest impact on the energy not transported figure. The failure illustrates how carefully we need to monitor and maintain our grid.

As a reliable grid operator, we have to weigh up the costs and benefits of spending time and money to detect these potentially damaging flaws. Searching for shortcomings in a fully-operational system could itself cause an outage. Because reliance on electricity is so high, and tolerance of outages so low, we only make non-essential grid adjustments if we are already doing critical work on our assets. In 2017, we took the opportunity of upgrading our grid during critical work to our new 380 kV Vijfhuizen substation in the Netherlands.

With respect to a large power outage in 2015 in Diemen, our regulator judged that we did not meet the legal requirement of proper redundancy during maintenance. Making adjustments for this across our grid would require an investment of approx. EUR 7 billion, which we believe will have minimal impact on our already high security of supply performance.

Offshore – in an even more challenging and unpredictable environment – our grid availability has reached 97.8%, a considerable achievement after 10 years of pioneering work in the North Sea. This is all the more notable considering that, unlike with onshore connections, we do not have a redundant cable that can take over electricity transport in case of a failure.

Next to technical failures also cyber crime is a potential risk to our high level of security of supply. TenneT is very well aware of this risk and is taking all necessary measures to prevent this from happening.



We are preparing ourselves for ISO 27001 certification and are in close contact with national authorities to carry out security contingency plans.

In 2017, an important milestone on the Randstad 380 kV high-voltage connection was reached, securing supply in this densely populated and industrially important part of the Netherlands. In the future, the Randstad 380 kV connection will also help us to connect offshore wind farms to the onshore grid. New 380 kV substations, such as the one

at Vijfhuizen, will help us convert electricity from 380 kV to 150 kV for regional distribution, monitoring and safeguarding grid stability.

In Germany, 2017 also saw us start operations on the new 380 kV line between Audorf/Süd and Hamburg/Nord with a length of 69 km. An essential artery of the energy transition, the 380 kV connection transports wind power generated in the North Sea to consumers in the south of the country.

	2017	2016	2015
Total circuit length (km)	22,774	22,554	22,245
Overhead lines (km)	18,974	18,830	18,893
Underground cabling (km)	3,800	3,724	3,352
Number of substations	462	458	454
Number of HVDC stations	15	15	13

* The majority of the underground cabling is in our 110/150 kV grid. For detailed information about our infrastructure per voltage level and country, [click here](#).

Investments in our infrastructure are vital to the flexibility and resilience of our transport network and to manage the increase of renewable energy. Based on the forecasted need of transport capacity we are making long term and short term investment plans to strengthen our grid. These plans can be found online, for [the Netherlands](#) and for [Germany](#).



The United Nations Sustainable Development Goal 7 – Affordable and clean energy – addresses one of the basic needs of society around the world; access to

affordable, reliable, sustainable and new energy sources for all. Without doubt, this is a goal where TenneT plays a major role. As a major European TSO, we embrace the challenge of integrating sustainable and new energy sources without compromising the reliability of supply. In doing so, we take societal costs into account and support the development of lower prices by installing cross-border transport capacity.

Next to investing in our grid, we work on a day-to-day basis to guarantee a reliable electricity supply. We have to make sure our grid is in good shape and therefore carry out regular inspections and maintenance work, which we plan in consultation with the regional grid operators and our connected customers. Operating our system becomes more and more challenging, due to 'network stabilising emergency' actions, which are caused by the transmission grid being placed under more supply pressure. The expenses associated with both actions are societal costs and are reimbursed via regulatory tariffs (see the financial section of this report). We see that the total grid expenses to operate our grid are over EUR 2 billion. For more specific information about our revenue, costs and profit, [click here](#).

Last year, we took the lead in initiating a thorough analysis of grid expansion scenarios beyond 2030 in Germany. It revealed that, with a high degree of likelihood, the current grid projects defined by law are necessary to achieve renewable energy goals in Germany. Beyond 2030, it was concluded that the growing supply of renewable energy and the resulting increase in transportation requirements can be accommodated with a significantly lower further grid expansion when utilising and developing innovative technologies. During the course of 2017 additional stakeholders, from peers to governments, embraced this view. We will continue the dialogue on this innovative way of looking at grid expansion in the coming years, since we feel such a debate is necessary to be able to solve the security of supply issues in the future.

CHALLENGE

We have a challenging job as we work in a fast-changing sector. Where we used transport electricity from a fixed number of fossil-fuel plants on land, we are now juggling multiple onshore and offshore energy sources and a complex, cross-border energy market. Some of the consumers are now also producers – ‘pro-sumers’- feeding energy from their solar panels or cars back into the system.

In a fast-changing market it can be hard to plan for the long term. Although our onshore assets can last for 40 years, the pace of change makes it difficult to look so far ahead in the future.

ACTION

We need to make sure we keep the lights on at all times, while facilitating the current and new market players. Staying in close contact with the government and the market ensures we know what changes we can expect. While all these changes have a big impact on the market we work in, our task remains the same.

When we invest, we need to ensure we are not providing society with expensive assets that could soon become obsolete. We work hard to avoid this, by weighing flexibility against cost, as well as taking into account the risk of not building. We have to weigh our decisions ever more carefully.

Outlook

Looking to the future, we expect to rely increasingly on technological advances and IT for our security of supply. Simply continuing to build assets which may or may not be necessary for the long term in the fast-changing energy market is not sustainable. The old ways of working and investing are changing. That’s why we are looking beyond our own capabilities to future solutions which we cannot yet fully gauge.

For example, we can already see that cutting-edge technology can make us use our grid far more efficiently,

by steering electricity to where it is needed after making an accurate forecast. This would allow us to use our existing double lines much more efficiently, for day-to-day business, without the necessity to build expensive new assets. Other examples of technological breakthroughs securing our supply may come from new storage solutions and the involvement of other energy carriers, like power to gas.

In this way, security of electricity supply will increasingly involve looking beyond what is possible now towards new capabilities and opportunities in the future.

SECURE SUPPLY

10 years of offshore expertise

This is an anniversary year for TenneT: it is ten years since we first started our offshore operations. We started in 2007 with only six employees, growing to 400 employees within a decade, realising 5.3 GW transmission capacity.

As offshore wind energy plays a key role in the Energiewende, the German government is planning to realise its ambitious targets with a significant expansion of capacity in offshore wind production. TenneT is playing its part in connecting wind farms to the grid by 2020. To that end, technically complex AC and DC projects in the North Sea, as well as other major projects – both onshore and offshore – are being accelerated.

Wilfried Breuer, Member of the Executive Board TenneT: *"We are the leading grid operator in the North Sea for interconnectors as well as offshore wind integration. Our unique and longstanding experience and skills make us the frontrunner in a complex and demanding environment."*

Meanwhile, we can draw on years of experience and expertise. Our very first offshore project was Alpha Ventus, an AC connection of 62 MW. TenneT's early days in offshore work in Germany were a rollercoaster ride. Everything was new: the technology, the contractors, the risks, the enormous financial investments as well as the political pressure. Our organisation grew rapidly to keep up, almost bursting at the seams. There was a lot at stake and it was not always easy.

Following Alpha Ventus, we realised BorWin1 in 2010, with a transport capacity of 400 MW and then a further nine offshore connections, with a total transport capacity of 5.3 GW. In 2017, these connections transported 16 TWh of

wind energy from the North Sea to shore, with a high grid availability and a significant contribution to CO₂ savings, in total 8.4 million tonnes. The energy flow from the North Sea has now reached a significant share of the overall wind energy generation in Germany.

We are currently planning and constructing four additional offshore connections that by 2019, will bring our total transmission capacity to 6.5 GW for electricity from renewables.

Torben Glar Nielsen, Executive Vice President Energinet dk: *"As a fellow TSO we really appreciate the excellent job TenneT has done in connecting enormous amounts of offshore wind in a short period of time."*

Our experience with connecting offshore wind in Germany has helped us to increase the efficiency in our offshore connections from DolWin3 to BorWin3 and now DolWin6, which has resulted in an average contract price reduction of around 15 per cent in 2017. With our offshore expertise in Germany we have taken the lead in mapping the future development of this critical infrastructure. For example, we conducted a study that determined 66 kV voltage levels for Dutch wind farms. This can now pave the way for further innovations, and become an industry standard.



Lead North-West European integration

Electricity does not recognise borders – electrons simply flow to the point of least resistance. That is why a seamless cross-border energy market makes sense – it is the only way to ensure a secure, sustainable, efficient and cost-effective energy supply.

The integration of the European energy market began many years ago, with the aim of creating a single market where gas and electricity can be traded and supplied across national borders, easily and efficiently. TenneT was one of the pioneers in this market model and is the world's first cross-border grid operator, playing a leading role in interconnecting energy markets in NWE.

An integrated market is also better suited to provide a stable electricity supply in the unpredictable world of renewable energy. In recent years, we have seen a significant increase in the amount of renewable electricity generated using wind turbines and solar panels. This is obviously a positive development that we welcome, but it also makes our job more complex. If the wind isn't blowing or the sun not shining, we have a challenge because we have less supply of electricity. In such situations, alternative sources must be deployed in order to meet the demand, and cross-border high-voltage connections are one of the solutions.



The United Nations Sustainable Development Goal 13, 'Take urgent action to combat climate change and its impacts', describes one of the highest

priority actions on our societies "to do list". Because the realisation of the national and European targets for reducing CO₂ emissions must come for a significant part from renewable electricity generation, solar and wind energy are widely needed. In addition, wind and sun are more or less complementary throughout the year; more sunshine from spring to autumn and a greater amount of wind in the colder and darker months. In short, a sustainable and stable energy system of the future will likely require both sun and wind - both on a large scale. Providing this sustainable and stable energy system is our job and therefore our contribution to reaching the world's ambition on climate action.

Results

With currently three connections between the Netherlands and Germany, one with the United Kingdom, two with Belgium, two with Austria, one with the Czech Republic, one with Sweden, two with Denmark and one with Norway, our grid forms a crucial link in the integrated Northwest European electricity system (see grid map on our [website](#)).

In 2017, we continued our work to boost interconnection capacity even further, by constructing our part of a new grid connection between Doetinchem in the Netherlands and Wesel in Germany. The Doetinchem–Wesel electricity connection will be the fourth interconnector between the Dutch and German high-voltage grids and is planned to be completed by the second quarter of 2018 and fully operational in the fourth quarter.

Our NordLink cable connecting the German and Norwegian grid, also known as 'the green cable', is another important new interconnection that reflects how we are supporting the development of an integrated European energy market, while simultaneously increasing the supply of renewable energy (especially hydroelectric power and wind power). Once it is fully operational in 2020, it will be the first direct connection between the two countries' power markets. With its capacity of 1,400 MW, the interconnector can provide renewable energy for more than 3.6 million households and will be able to export for example wind energy generated by approximately 466 wind turbines of 3 megawatts, each. This is comparable to the capacity of three conventional power plants.

During 2017, we continued our construction activities on the COBRACable, a high-voltage direct current (HVDC) sub-sea cable directly connecting the grids in the Netherlands and Denmark. The cable is designed in such a way that it is possible at a later stage to connect a wind farm at sea as well. This project contributes to a sustainable international energy landscape by stabilising electricity prices in both countries, while also further facilitating European market integration.

In 2017, our imported and exported volumes in the Netherlands decreased due to grid and market developments in our neighbouring countries. In Germany, our imported and exported volumes increased due to difference in supply and demand in the North and South of the country.

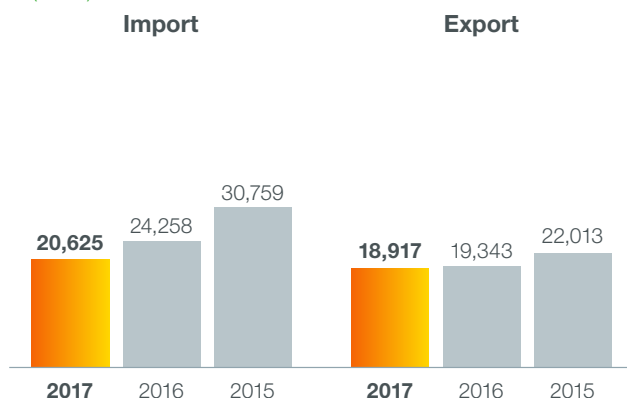
For real-time import/export figures, [click here](#).

The ongoing market integration in Northwest Europe has led to an increased number of hours in the last years where wholesale electricity prices are equal across Central West Europe (CWE), also known as 'price convergence'. In concrete terms, in 2017 35% of the time the price in the four countries in CWE was equal.

TenneT has published its yearly 'Market Review' since 2014, outlining developments in the NWE market, particularly in the Netherlands and Germany. This publication presents the highlights of the past year and puts the most important developments into perspective. To read more, [click here](#).

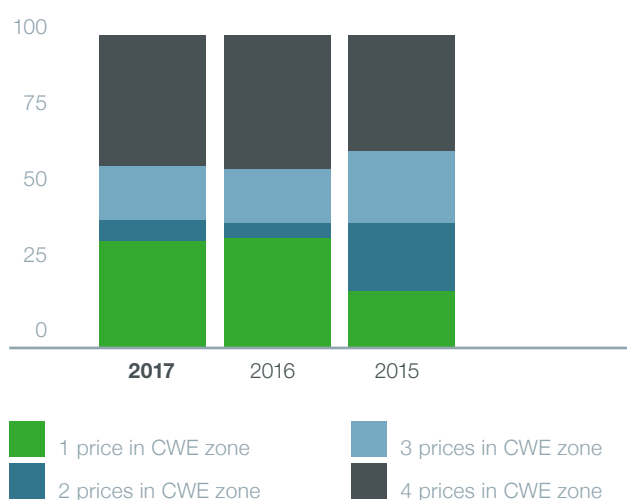
Import and export Netherlands

(GWh)



Price convergence

(%)



We anticipate that the CO₂ reduction targets set in the Paris Climate Agreement will demand such a high level of renewable energy production capacity that the electricity grids of the individual countries will struggle to cope. Our ground-breaking vision, a North Sea Wind Power Hub, announced in 2016, could play an important role to alleviate this pressure. It describes a way of connecting ca. 70 – 100 GW of wind power and supplying renewable energy to 80 million people in Europe by 2050.

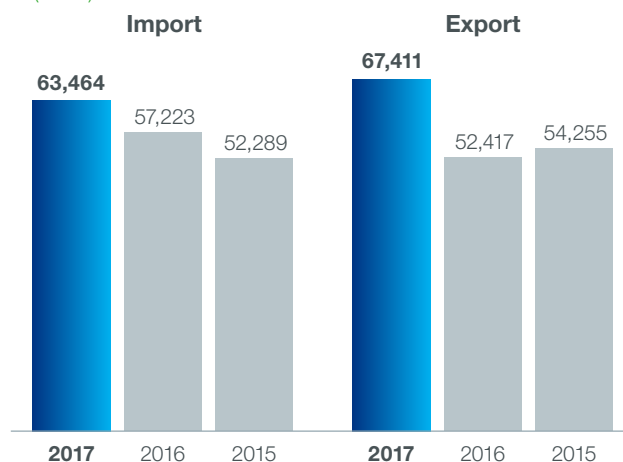
In 2017, this plan was well received by the EU, which stated that no European country can implement the CO₂ ambitions on its own and that it makes a lot of sense to combine efforts. Three partners signed up to join in 2017, Energinet dk, Gasunie and the Port of Rotterdam, adding up to five partners in total so far.

Energinet dk also aims to make the energy transition viable and affordable. It embraces the central idea of the plan, the construction of one or more so-called Power Link islands with interconnections to the North Sea countries, in the middle of the North Sea (Doggersbank).

Gasunie, the Dutch gas TSO, has expertise in the field of gas transportation and storage via internationally connected networks. The company also has important knowledge about the use of renewable gases such as hydrogen and transformation processes such as Power-to-Gas. Power-to-Gas is expected to play an important role in the North Sea Wind Power Hub system. The volumes of offshore wind energy required for the energy transition are so large that solutions for gaseous transport and storage are likely to be needed in addition to power connections. Combining the strengths of power and gas systems can also give an

Import and export Germany

(GWh)



important impetus to hydrogen as a sustainable solution in industry and the transport sector.

With the Port of Rotterdam as a partner, announced during the WindEurope conference and exhibition in Amsterdam in November, the consortium now also has important seaward land reclamation knowledge. Making industry more sustainable is a major issue for Europe. According to calculations by the Port of Rotterdam, enabling the sustainable operation of Rotterdam's industry alone would require between 27 and 49 TWh of generation capacity. Volumes of that order of magnitude can only be achieved by offshore wind energy, at this stage. The concept of a North Sea Wind Power Hub is an appealing prospect for the development of a large-scale, sustainable energy system in the North Sea and ensures capacity is effectively integrated into the relevant plans of the North Sea countries.

In 2017, the share of renewable energy capacity increased compared to 2016. Particularly noticeable is the decrease of hard coal generation capacity which is compensated mainly by the increase of solar and wind capacity.

Key to creating a fully-integrated European electricity market is the 'Clean Energy For All Europeans' package, launched by the European Commission in November 2016. This contains a vision for the EU to lead the clean energy transition, not merely adapt to it.

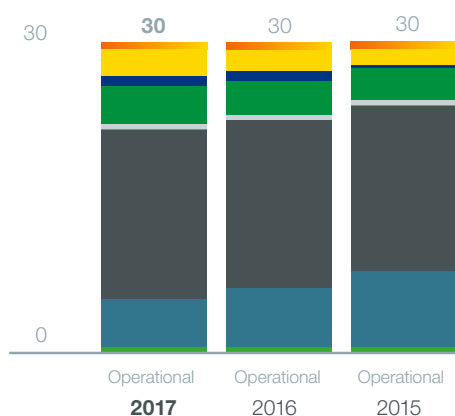
The EU ambition is clear about its commitment to cut CO₂ emissions by at least 40% by 2030 compared to 1990, while at the same time driving economic growth for all European citizens.

The past year the European Parliament proposed to refine the shape of the Clean Energy Package, clearing the way for the implementation of an Energy Union within the EU. TenneT is pleased to play an active role in this important work, co-ordinating closely with the Dutch and German governments. We provided detailed input to policy-makers during all ministry, council and parliament consultations and discussions. Especially on the plan to have regional control centres that manage the electricity grids, we emphasised that there is already close cooperation between the national grids in Europe. In fact, the European markets are physically and technically interconnected to guarantee security of supply.

All of these proposals are aimed to provide consumers across the EU with a better choice of supply, access to reliable energy price comparison tools and the possibility to produce and sell their own electricity. Increased transparency and better regulation allows customers to become more involved in the energy system and responsive to price. Importantly, the Clean Energy Package also contains a number of measures aimed at protecting the most vulnerable consumers.

Operating generation capacity Netherlands

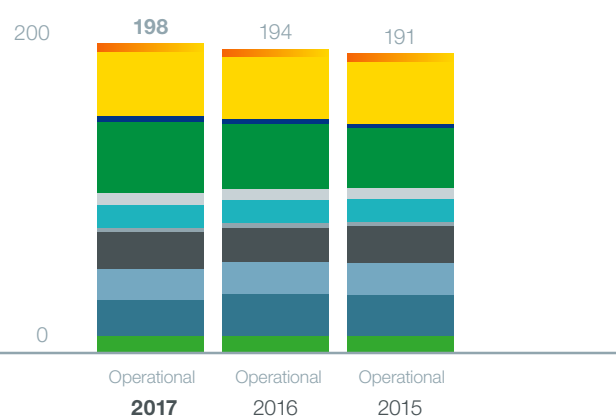
(GW)



Operating generation capacity Germany

(GW)

Source: BNETZA, kraftwerkslisten



CHALLENGE

Large-scale international coordination is complex and can be delayed by opposing national interests, legislation and regulation. For instance, on the Danish-German border we are dealing with the question of whether producers in one nation are favoured over the other when transport capacity is tight. The European Commission is now investigating how much capacity shall be offered at that particular border. The Commission's findings could create a precedent for all cross-border connections in Europe.

The current EU proposals are decoupling market development from the underlying physics. This has its limits. Not only does it carry a risk for security of supply, it could also lead to higher financial burdens for TSOs and increased electricity prices for end-users.

ACTION

We will make sure to explain what exactly happened, how we calculate capacity and why. With the ambitious plans and projects underway and competing in a large cross-border market, we realise we are working in a highly challenging environment.

We continue to invest a great deal of time on discussing how an integrated European market will need to function. We provided detailed input to policy-makers throughout all ministry, council and parliament consultations and discussions. Collaboration between national TSOs is vital in this respect.

Outlook

The future of the European energy market is fundamental to our business and something we work on day to day, as expressed by the interconnectors we operate and construct and the vision for the North Sea Wind Power Hub.

We observe that we are at a crossroads in the development of the European energy market. As we integrate ever-more and ever-faster, we are extending our grid infrastructure and we will need large investments to do so. As a result of further integration and cooperation, we expect energy price differences between the Netherlands and Germany to become smaller and imports and exports to play a more important role. All of this has ultimately been designed to increase the welfare of consumers across the EU.

In the short term, European grid operators will continue to work very closely together on improving their ways of steering the grid in the current dynamic environment. New network codes are agreed by TSOs across Europe and need to be implemented in the years ahead. This is an extensive operation that requires a lot of effort from our side.



LEAD NORTH-WEST EUROPEAN INTEGRATION

North Sea Wind Power Hub

As a company that always needs to prepare for the future, we predict that the CO₂ reduction targets set in the Paris Climate Agreement will demand such a high level of renewable energy production capacity that individual countries will struggle to cope on their own. Our ground-breaking vision, the North Sea Wind Power Hub (NSWPH), announced in 2016, could play an important role in exploiting wind energy in the North Sea in the long term.

Mel Kroon, Chief Executive Officer TenneT:

"It is our firm belief that the energy transition must be a truly international endeavour. It will transform the electricity system, making national borders irrelevant. Closer collaboration will allow the energy transition to be realised faster, more efficiently and at a lower cost."

The North Sea provides optimal conditions for offshore wind power with shallow waters, strong and relatively stable wind speeds, proximity to consumption centres and bridging Scandinavia and the UK to Central Europe. In addition, we are seeing rapidly declining costs in offshore wind and projections now forecast cost-efficient deployment of up to 180 GW of offshore wind power in the North Sea in 2045.

Connecting large-scale offshore wind power to faraway central hubs or joining even-larger amounts to several inter-linked hubs, provides a unique opportunity for economies of scale. By building a hub on an artificial island, effectively creating a near-shore environment far out at sea, capital-

intensive platforms for HVDC converter stations could be avoided. In addition, an island would serve as a permanent base for staff to construct and maintain surrounding wind farms as well as for possible synergy technologies such as Power2Gas.

A project the size of the NSWPH must build on strong international cooperation and coordination. The North Sea countries' political declaration on energy cooperation and the cost-efficient roll-out of offshore wind power is a starting point. The declaration shows the intention for internationally coordinated planning and the roll-out of offshore wind power in the North Sea could become reality. Meanwhile, a North Sea Wind Power Hub consortium has been formed, consisting of TenneT, Energinet, Gasunie and the Port of Rotterdam.

Maroš Šefčovič, Vice President of the European Commission, in charge of the Energy Union:

"I welcome TenneT's ongoing efforts to further remove physical and infrastructural barriers in the European electricity system. The North Sea Wind Power Hub is a typical example of a genuinely European project; no single European country could implement it on its own, but it makes perfect business sense to do it together. This is what the European single market is all about."



North Sea
Wind Power Hub



Innovate business

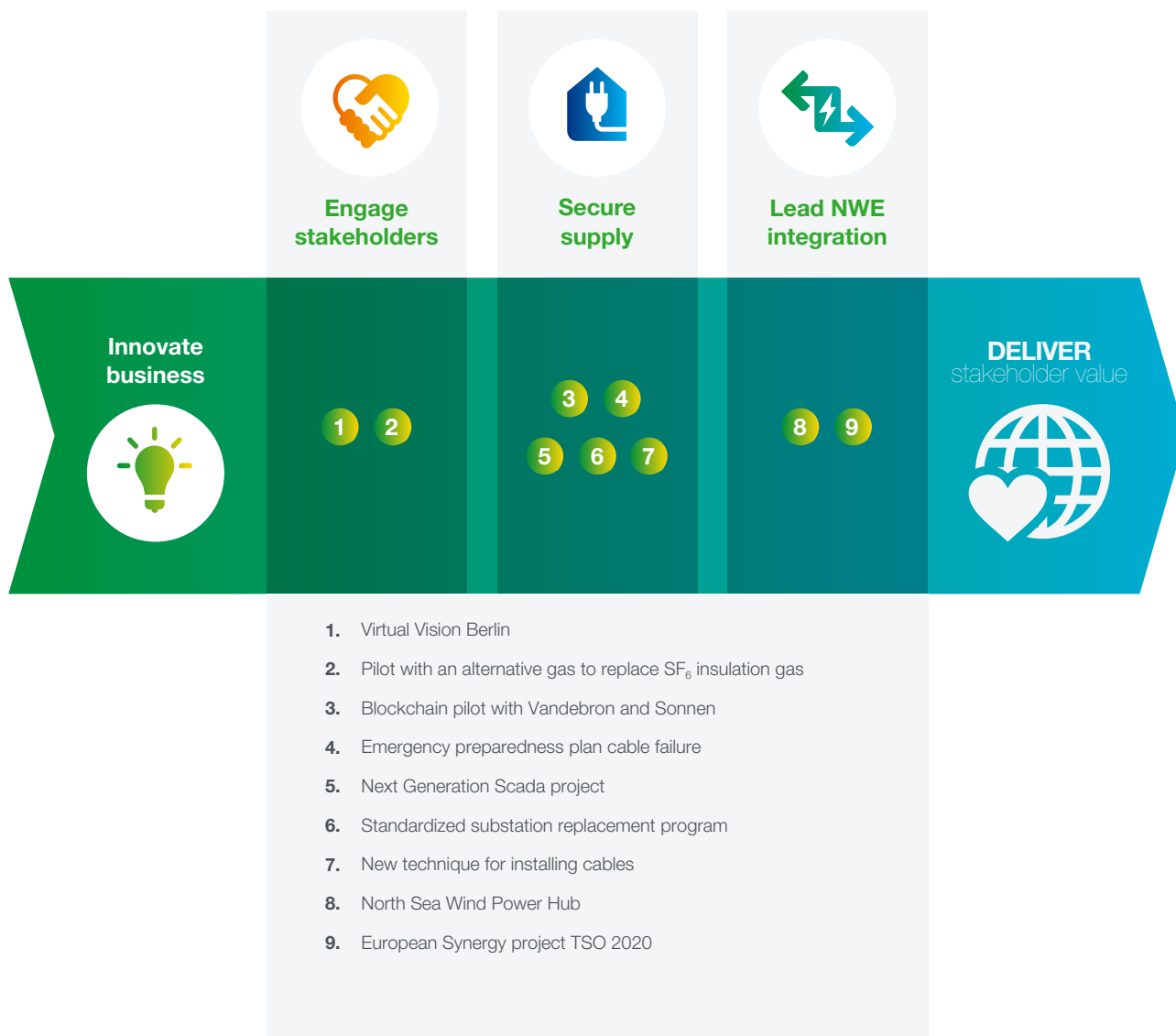
The limits of the power grid are being tested by the energy transition. The prices of solar energy and electrical storage have fallen dramatically over the last five years, and the production costs of wind power generation have more than halved. Technology is addressing the challenge of how to store these unpredictable sources of energy, with the latest thermal storage able to store power with the flip of a switch.

The arrival of many new and small players on the scene is transforming the energy market, making it less monopolistic and increasingly competitive. This is also a time of rapid technological innovation, opening up many new opportunities to make the system and our grid work better than before. This also helps to tackle the challenge of rising transportation costs due to increased feed-in of renewables.

For us, innovation is key to developing the systems, services and technology required to address the changes we face. We define innovation as 'the successful exploitation of new ideas to create value for the company and the society'.

Results

Innovate business





The United Nations Sustainable Development Goal 9 – Industry, innovation and infrastructure – focuses on building resilient infrastructure, promoting

inclusive and sustainable industrialisation and fostering innovation. This is essentially our objective with innovation: “the successful exploitation of new ideas to create value for the company and society”. If we succeed with our innovation approach, society will benefit directly, and this in turn will have a significant impact on industry and economic welfare. Doing this in close cooperation with our stakeholders ensures sustainability of our embedded solutions.

Our approach to innovation is to create benefits for our stakeholders with a focus on our strategic goals, to enhance system flexibility and ensure security of supply. We also rely on innovation to advance the use of data and analytics and to drive the integration of the North West European electricity market.

Innovation at TenneT is embedded in our business organisation and strategy; people throughout the organisation are experts in their field and we value their creativity. This ensures innovation contributes significantly to the continuous improvement of our organisation.

We have also designed and implemented an innovation programme that is connected to our strategy, overseen by our internal Innovation Board. To push us further and make sure we are fully aware of cutting-edge technologies, we have also set up an external Innovation Board, comprising experts from the academic world, research centres and other TSOs.

Realising our strategy

We believe that moving into big data is important for the future of our company. We need to fully use data and analytics to improve our own system operations and efficiency, and better facilitate the energy market and transition.

In 2017, we made significant progress in this strategic goal and signed partnerships with various companies to contribute to the maintenance of the energy balance in novel ways. In the Netherlands, we signed an agreement with energy supplier Vandebron to start a pilot to use car batteries to help manage our grid.

This is using the open source software blockchain to manage transactions for electricity demand and supply. To ensure there is sufficient flexibility in the future, this technique could be one of the alternatives to using conventional power plants.

We have also conducted a pilot using blockchain technology in Germany. Working with Sonnen – a manufacturer of home energy batteries – we use home storage systems to help manage bottlenecks in the grid and limit the amount of expensive wind farm locking that needs to take place. The linked battery storage devices can absorb or emit any excess power in a matter of seconds when required. Blockchain technology gives us a secure overview of the available pool of flexibility, which can be activated at the push of a button.

Innovations like these are essential because the traditional energy model is rapidly disappearing. Old market rules and models must be upgraded to unlock modern technology options and new players to facilitate the growing need for system optimisation.

Innovation is also crucial in maintaining our high level of security of supply. Politicians and citizens alike request us to use more and more underground cable instead of overhead lines. Quickly repairing these cables in case of failure poses a challenge. As such, using an innovative process approach, we developed an emergency preparedness plan in 2017 that makes it clear to everyone in our organisation what needs to be done in case of a cable failure.

The energy transition is also challenging when it comes to IT systems to operate our grid. In order to control the changes resulting from the energy transition and its effects on our network and ultimately security of supply, we must use state-of-the-art operating systems to operate the more complex electricity flows. Therefore we started The Next-Gen Scada (our operating system) project in 2017. In the coming years TenneT will invest in replacing the existing Scada landscape and make it suitable for the future.

To be able to play a leading role in the energy integration of NWE, we need to partner with other parties in the energy sector. We can't implement every innovation and make it work by ourselves. An example is the three new partners who have joined our vision for the North Sea Wind Power Hub, as outlined in the Lead North Western Energy Integration chapter of this report. But also our continued commitment in the EU Horizon2020 supported projects PROMOTioN and MIGRATE are examples.



Another important new partnership in 2017 was the European Synergy project TSO 2020. This brings renewable power from Denmark into the high-voltage grid, transported through the COBRA cable at Eemshaven. Partners in this project include Gasunie New Energy, Energy Stock, TenneT, EASE, Energy Valley, Delft University of Technology, Green Planet and the Netherlands Ministry of Infrastructure and Water Management.

In this project, wind power is partly converted to green hydrogen, temporarily stored in a salt cavern and subsequently transported for applications in mobility. At the gas storage site Zuidwending, wind power is converted into hydrogen by electrolysis of water and made available to gas stations such as Green Planet's.

To reach our goal of engaging stakeholders, we use innovative solutions to approach our stakeholders, such as our new Virtual Vision installation in Berlin, which opened in May. For further details on this, see the [Engage Stakeholders](#) chapter.

Continuous improvement

As well as investing in innovation to future-proof our company – as outlined in our strategy – we also ensure that innovation is part and parcel of our ongoing daily business. As a fast-growing company, we are constantly challenging ourselves to do things better.

To make our 110/150 kV substations ready for the future, we need to replace approximately 1,140 bays during a period of 10 years' time. Approximately 140 of our 110/150 kV substations are older than 45 years and need to be replaced, which comes down to a replacement average of approximately 1 substation per month.

To get this extensive job done there is only one approach: we need to standardise our 110/150 kV stations. Besides technical standardization, the replacement, maintenance and management will be uniformed to achieve the desired predictability and acceleration of replacement. We also seek to work with the supplier market in a different way. Our Program Bay Replacement, which started in 2017, is going to design, learn and test this new approach, with inputs from market parties, starting with a proof of concept phase including the replacement of six substations with AIS and GIS technology. Based on the results of the proof of concept phase from technical, organizational and financial perspectives, TenneT will decide to proceed with the large volume replacement of 110/150 kV substations based on the new technical standards and ways of working.

Improving our business is often a matter of working closely with our suppliers. In 2017, we used a new technique to install cables in our project in the Randstad (the Netherlands), developed by our contractor BAM. Instead of having to open the ground along the full distance to install a cable, smaller openings are made in 500 meter increments. This technique minimises ground excavation and, therefore, disruption of the local community and environment.

We also started a pioneering pilot in Germany to use an alternative for SF₆ insulation gas, which has an enormous greenhouse gas impact, at our Frankfurt North substation. The alternative is g3 green gas, developed by 3M and applied by General Electric. Over the next three years, the transformer's technical functioning will be closely monitored.



CHALLENGE

Fast-moving technological advances raise the questions such as: are we capable of handling such fast-changing technology and implementing it for maximum benefit? Every day, we make technological and other decisions with far-reaching implications.

Technological advances go hand in hand with technological challenges. A prime example of this is the installation of an offshore wind farm far shore and the complexity of bringing this to land. A technological choice between using high-voltage, direct current (HVDC) electric power transmission and the more common high-voltage, alternating current (HVAC) systems needs to be made, as well as the choice for the most optimal location to connect to the existing onshore grid.

ACTION

We play an important role in this changing environment. TenneT used to be a straightforward and traditional grid operator, but much more is now expected of us. The organisation will use knowledge and expertise across a range of fields to deal with this. This is an organisational challenge that we will continue to cope with in the coming years.

It is our job to explain the clear technical and societal benefit of one solution over the other. Although using HVDC can be very challenging from a technical point of view, we believe it has distinct advantages in a modern grid designed to carry more renewable power and we will continue to bring this solution to the table.

Outlook

Current power markets were designed to accommodate traditional generators and customers who simply use energy and pay their bills. Now, fast-growing energy conversion technologies like wind and solar power, and new opportunities for smart meters, like demand side response, energy efficiency and distributed energy resources, don't fit the traditional mould. Existing market designs have become barriers to innovation and must be changed.

As a neutral market facilitator, TenneT can help to improve the market design and create and manage a data hub that would provide a data platform for all parties. Collecting and enriching electricity and electricity-related data will also help market players drive market integration.

Developments such as transmitting electricity underground, nature inclusive designs, dynamic line rating or high temperature conductors will help us increase the public's acceptance given that they demonstrate our commitment to minimising the impact of grid expansion and alleviating 'not in my backyard' concerns about transmission lines. To achieve this, we will actively engage with communities to understand their needs and concerns. This will also strengthen our innovation culture and practices and help us work with external partners to address concerns in innovative ways.



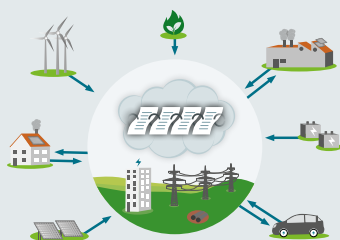
INNOVATE BUSINESS

A digital future – pilot projects to enhance system flexibility

Digital technologies are paving the way for a decentralised energy world. New developments, such as blockchain technology, make it easier to track energy around the grid. This is allowing market participants to make fast and safe energy transactions, thereby supporting the balance and boosting flexibility in the system.

Lex Hartman, Member of the Executive Board TenneT: *“With blockchain technology a virtual power plant can be created that consists of millions of prosumers.”*

The numbers of electric cars and solar panels with small, individual batteries are growing rapidly. Together these can upload or download substantial amounts of electricity, helping to balance highs and lows in the electricity supplied from wind or solar. For this system to work, the individual batteries must be linked to an ‘aggregator’, which connects households to the TSO. The aggregator makes electricity available to households through smart contracts and price incentives. It stores or releases battery charge, depending on how much is being fed in and withdrawn. One battery won’t make much of a difference to a national electricity grid, but a few million could do so. In this way, by so-called ‘crowd balancing’, individual households can help the TSO to balance the grid.



Adjusting and expanding our current business model to accommodate the more volatile flows of renewable electricity is crucial. To this end, TenneT announced two pilot programmes involving the use of battery capacity through aggregators in 2017.

In the Netherlands, TenneT has started a pilot with Vandebron, an aggregator operating a network of private electric car batteries. To help TenneT balance the grid, Vandebron has developed a smart system to make available the capacity of its customers’ car batteries, without compromising on battery availability. In this way, this pool of electric vehicles provides a secondary supply of power.

Jean-Baptiste Cornefert, Managing Director of sonnen eServices: *“Already today decentralised home batteries can help to stabilise the German electricity grid. Now we are taking an important next step with TenneT, to use these batteries for redispatch measures.”*

In Germany, we started a cooperation with sonnen eServices, which operates a network of residential smart batteries. Frequently, wind parks in the north of Germany produce huge amounts of electricity. However, consumer demand in the north is lower than in central and southern parts of the country, which leaves surplus energy that needs transportation. As the grid has insufficient capacity to carry it to these regions, alternative solutions are needed. Rather than switching off turbines in the north to avoid regional overload of the grid, and lose valuable green energy, the electricity can be redispatched to clusters of individual residential batteries. This stores the excess electricity for a period before making it available again for the grid.



Operational performance

Financial

We need to make significant investments to upgrade and expand our high-voltage grid, and meet the demand and needs for the transition to renewable energy. To live up to these demands, solid financing and flexible access to equity is fundamental. At the same time, it is important that we keep power transmission and system services affordable.

To fund our extensive investment programme and maintain our credit rating, we increased our external financing during 2017. We strive to maximise capital and operational

efficiency by smart capital expenditures and by focusing on reducing operating costs. In addition, we have started a LEAN programme to increase productivity.

Underlying results

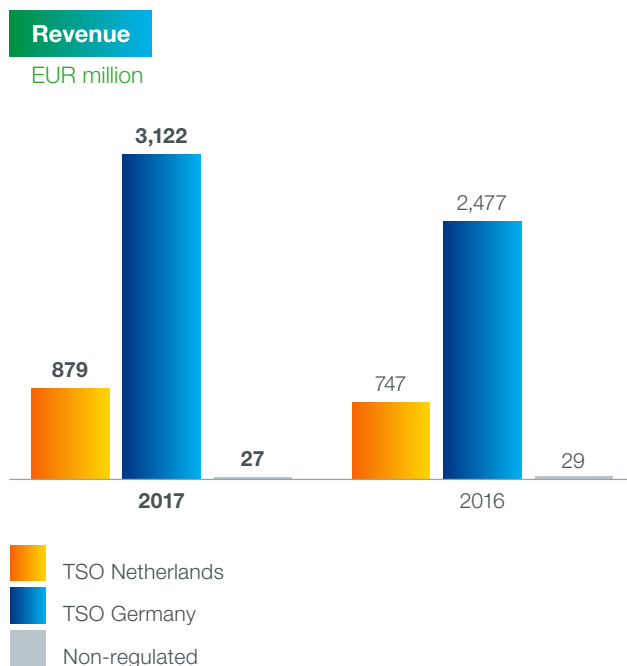
(EUR million)	2017	2016	Difference in €	Difference in %
Revenue	3,948	3,227	721	22%
Operating expenses	3,120	2,471	649	26%
EBIT	897	834	63	8%
EBITDA	1,549	1,453	96	7%
Profit for the year	531	523	8	2%

Monitoring and managing the performance of our business is based on underlying financial information and not on IFRS-reported financials. Underlying financial information involves the recognition of regulatory receivables and payables, which – based on the current regulatory framework – can be recouped or are to be returned through future grid tariffs (see section 2 of our consolidated financial statements).

Under IFRS, reimbursement/settlements through future grid tariffs may not be taken into account. As a result, the balance of any expense or income is not recognised as a regulatory asset or a liability under IFRS.



Revenues



In 2017, revenue rose as a result of significant investments in new assets over the past years. The regulatory regimes in the Netherlands and Germany ensure that we are compensated for the depreciation of our investments and that we make a return on the capital invested in our regulatory asset base.

In 2017, our underlying revenues also increased due to reimbursements for rising grid expenses, mainly redispatch and feed-in management. Since a TSO's ability to influence this type of expense is limited, the regulatory system allows us to pass the majority of these costs on to our customers through tariffs. These reimbursements are part of our revenue, which means that higher grid expenses lead to higher revenues, but do not affect our underlying EBIT. For further information on these grid expenses see the 'Operating expenses' section below.

Operating expenses

Operating expenses rose mainly as a result of rising grid expenses and higher depreciation resulting from past investments.

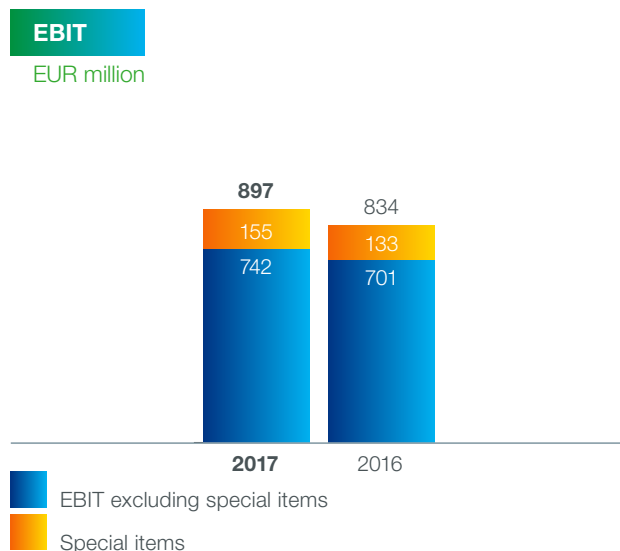
Under certain conditions, we can temporarily cut off energy suppliers to prevent overloading the grid. This is essential to ensure a stable northwest European grid.

The costs of these temporary measures are related to the feed-in of renewable energy sources, mainly consisting of wind energy. Feed-in management costs are reimbursed through higher tariffs.

Low temperatures at the start of 2017 and a one-off energy shortage in France led to higher redispatch measures and associated costs, which are fully reimbursable under current regulation and hence directly result in higher revenue.

Managing the growth of our investment portfolio has also increased our costs, as we need to attract more staff and have expanded our facilities.

EBIT



Underlying EBIT increased from EUR 834 million in 2016 to EUR 897 million in 2017. EBIT growth was mainly driven by an increase in our asset base, causing a higher (absolute) return on capital. The revenue effects from the higher grid expenses and depreciation -as mentioned above- did not affect our EBIT, since these expenses are pass-through.

In 2017, special items were mainly related to offshore reimbursement in Germany, in excess of actual costs. We receive a fixed-percentage reimbursement on capital invested in offshore projects, to compensate for operating and maintenance costs. From 2018 onwards the regulatory offshore reimbursement in Germany will change and will result in a significant decrease in our revenue and related EBIT, as the aforementioned effect will disappear.

Investments

Capital expenditure (capex) totalled EUR 1,770 million in 2017 – a decrease compared to 2016 (EUR 1,848 million). This is due to the composition of our project portfolio, where large projects have been completed in the past few years and some of our new large projects are still at an early stage. These significant investments were the main driver of our net cash outflow from investing activities and were financed by our cash inflows from operating activities, proceeds from equity contributions and external financing resulting in a cash inflow from financing activities (see below).



In 2017 our main projects under construction were:

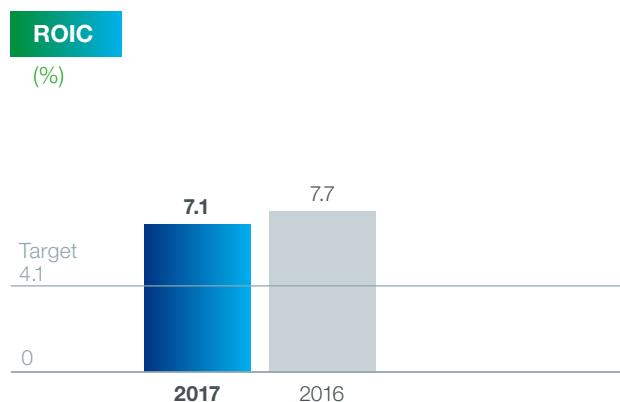
- Germany: Dolwin3 and Wahle-Mecklar
- Netherlands: Randstad 380 and the Net on Sea (Borssele Alpha + Beta)
- Cross-border: COBRACable (Netherlands - Denmark), Doetinchem-Wesel (Netherlands - Germany), NordLink (Germany - Norway) and Hamburg Nord-Kassö (Germany - Denmark).

For more detailed information on these and our other projects, please visit the dedicated project section of our [website](#).

Return on invested capital

We use the return on invested capital (ROIC) as our key performance indicator for delivering value to our financial stakeholders. Our target is based on an average of the long-term returns as stipulated in, or implied by, Dutch or German regulation, respectively. For 2017, ROIC slightly decreased compared to 2016, despite our increased EBIT (see “EBIT” paragraph for further details).

Main driver for the decline is the (relative) decreasing allowed regulatory return in the Netherlands and Germany. The ROIC significantly exceeded our target of 4.1%.



Capital structure and financing

We seek to maintain a solid financial position, with sufficient flexibility and resilience to manage any necessary or enforced changes to our operations as well as any regulatory amendments. We also need sufficient funding to carry out our extensive and ongoing investment programme. Full access to the financial markets under favourable conditions is a prerequisite for this. Senior unsecured credit ratings for TenneT Holding B.V. remained unchanged in 2017 and were reaffirmed by Standard & Poor's (A- / stable outlook) and Moody's Investor Service (A3 / stable outlook).

CSR rating agency Oekom assessed our overall social and environmental performance and upgraded our overall CSR rating from B- to B (status Prime). This recognition for our green-bond programme and our strong CSR ratings boost our investor appeal from a CSR perspective.

Equity

In April 2017, we successfully launched and priced the first-ever green hybrid bond, totalling EUR 1 billion. This hybrid bond classifies as equity and was awarded an instrument rating of Baa3 and BB+ by Moody's and S&P, respectively. With the launch of this new hybrid, we decided to redeem the EUR 500 million of hybrid securities, issued in 2010, in June 2017.

Net debt position

Our net debt position increased from EUR 7,347 million in 2016 to EUR 7,687 million in 2017. This mainly reflects the higher funding provided for our capital-investment programme.

In June 2017, we successfully launched and priced another EUR 1 billion green bond issue under the green bond



programme, a dual tranche of EUR 500 million each, with an 8-year maturity (coupon of 0.75%) and a 12-year maturity (coupon of 1.375%). S&P Global Ratings awarded our newly-issued green medium-term notes an overall green evaluation score of E1, which is the highest possible score.

The green bonds relate to investments in the transmission of renewable electricity from offshore wind farms to the onshore electricity grid. The eight offshore projects financed with the proceeds from the green bonds are examples of how we use green financing. In 2017, we were awarded two

Global Capital Sustainable and Responsible Capital Markets Awards. We were recognised as the 'Most Impressive Green/SRI Bond Issuer' and the 'Most Impressive Corporate Green/SRI Bond Issuer'.

For more information on our capital management policy, procedures and financial risks, see note 6 (Capital structure and financing) of our consolidated financial statements. For even more information on our green bonds in our separate Green Finance Report, [click here](#).

CHALLENGE >

The energy market is changing fast and becoming increasingly complex. Substantial long-term investments to secure supply for the near future are needed whereas technology developments might lead to other solutions in the medium, long term. The risk is that our investments become less relevant, resulting in stranded and obsolete assets that serve no purpose.

Our extensive investment programme requires ongoing access to capital. This presents a challenge as it means that we need access to sustainable and flexible equity, while maintaining our solid creditworthiness for (potential) investors.

The rapid growth of our organisation is in itself a challenge as we seek to maximise operational expenditure efficiency even as we grow.

< ACTION

We look beyond our own capabilities and take future developments and technology into account when taking investment decisions thus entering into investments that are necessary to society, based on the current information available. Through dialogue with the regulator and other stakeholders, we aim to create a regulatory framework that integrates new technology in our transmission grid in a cost-effective way, benefitting our customers and society at large.

We will continue to finance substantial sums, through issuing green bonds and loans. We also plan to increase our capital in the short to medium-term through dialogue with our shareholder.

We are working to improve our internal processes and performance culture. In 2017, we undertook a company-wide LEAN scan and set a 14% productivity target for the upcoming three years. This should help us handling the increasing amount of work in the most efficient way.

Outlook

The German government has pledged to move to a decarbonised economy by the middle of the century and has set a target of 80% renewables for gross power consumption by 2050. The country aims to phase out all of its nuclear power plants by 2022. German renewable energy has been rising steadily over the past two decades, boosted by the Renewables Energy Act (EEG) which was adjusted this year to cut renewable energy costs for consumers. There are similar developments in the Netherlands as the government is committed to further accelerating the decommissioning of existing coal-fired power plants. The parties in the new Dutch coalition government have agreed to pass legislation "making it a legal obligation to shut down all coal-fired power plants in the country by 2030."

All this means that our work to develop a grid that can accommodate even larger quantities of renewable energy is more important than ever. We are also bundling and scaling our investments in innovation and work to streamline our operations as we move ahead. Growing our business to keep pace with these developments will require an expected investment of approximately EUR 28 billion over the coming 10 years.

Our financial results are healthy and the developments addressed above underpin the sustainability of these results. Nevertheless, the regulatory regimes are putting pressure on our operating expenses. As such, we plan to improve our own performance by investing further in talent development, innovation and strategic initiatives aimed at operational excellence, including embedding the LEAN philosophy in our organisation.



Non-financial

At TenneT, an important part of our task is to facilitate Europe's transition to renewable energy. We transport more and more wind and solar-generated power to end-users, we are playing our part in helping to make the world greener and more sustainable. At the same time, we are also transforming the way we work to make our operations more sustainable. Corporate Social Responsibility (CSR) is one of our leading principles; taking care of our people and taking responsibility for our impact on the planet, in our operations as well as in our supply chain.

Results

Our people

As a company, we are committed to providing a workplace where our people can thrive and perform to the best of their abilities.

In this context, our motivated workforce is committed to ensuring we build and maintain a future-proof and sustainable energy infrastructure.

	2017	2016	2015
Internal employees (headcount)	3,187	3,040	2,887
External employees (headcount)	871	631	568
Male employees (%)	79%	78%	78%
Female employees (%)	21%	22%	22%

* Detailed employee data per country can be found [online](#).

In 2017, our total number of employees increased, at the same rate as the year before. In the coming years our workload to realise offshore connections in the Netherlands will require extra staff. We will run a dedicated recruitment programme in 2018 to hire internal and external staff. TenneT works with a flexible shell model that relies on a core team of permanent employees, supplemented by temporary employees (external and internal) and external contractors for certain additional duties and peak-load work.

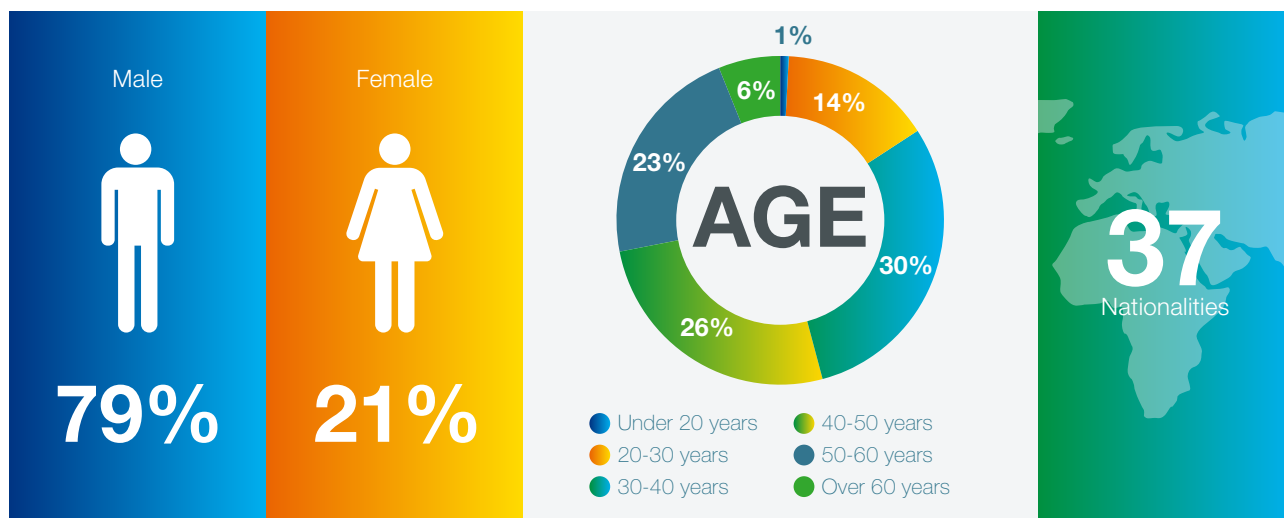
We measure our employees' commitment and engagement in a survey, conducted every two years. The 2017 survey was completed by 83% of our employees, and the sustainable engagement score has decreased slightly from 83% in 2015, to 80% in 2017. This is still a strong level of engagement compared to our peer organisations (energy & utilities benchmark of 78%) and only slightly below high-performance organisations (benchmark, 82%). Treating people with respect and offering people the tools to do their jobs remain one of our key strengths, also compared to high-performing organisations.

Of course, we can always do better and we have identified operational efficiency and effective decision-making as two areas we want to improve. Our LEAN continuous improvement programme, introduced in 2017, aims to improve this by doing our work better, faster and easier.

One of our focus areas in 2017 was diversity, which we see as a key contributor to our success as a high-performing organisation. For TenneT, diversity goes to the heart of our business. As a more diverse organisation, we are better equipped to serve our diverse stakeholders. And by diverse employees we don't just think in terms of gender, although that is the starting point for our targets. We welcome diversity in its widest sense, welcoming employees from different backgrounds, religions, cultures and creeds, with different skills, knowledge, personalities and experience. This wide range of skills and perspectives enriches our company and help us do a better job for our stakeholders.



Diversity



Our diversity policy will focus on gender diversity for the next five years (2018 - 2023). Therefore we have set ourselves the following targets:

- The Executive Board and Supervisory Board must consist of at least 30% women.
- At management level (managers and senior managers) at least 22% of newly hired managers must be women.
- TenneT-wide, the proportion of female colleagues must remain at least 22%.

These percentages may not seem as ambitious, but based on the composition of the labour market the bar is quite high. In the coming years, for example, TenneT expects a lot of vacancies for highly skilled technicians, a target group of which only 10% is a woman anyway. So it will be quite a challenge to find enough female colleagues.

Two workshops have been organised in 2017 to start the discussion with female employees and recruiters on how to realise our ambitions. We will continue and strengthen this approach in 2018.

In 2017, we initiated steps to help us become a high-performing organisation. Among these was the development of a new performance management concept, where ongoing dialogue is one of the key aspects. We will start working with this concept starting with the leadership team in 2018. Company-wide roll-out is expected in 2019. We also focused attention on two target groups of employees. We focussed on engaging with young talents by extending our existing international trainee programme for trainees both from the Netherlands and Germany.

To guarantee sufficient team leaders in the near future, we organised a training programme to develop their skills including a 24-hour management game.

We reward our employees with a market-based package of salary, pension and secondary benefits. Currently 80% of our employees in the Netherlands and Germany are covered by collective labour agreements (CLA). In 2017, TenneT the Netherlands decided to leave the collective labour agreement of the Dutch grid operators, because our current business activities are less in line with those of the DSO's than in the past. In 2018, this CLA will be replaced by a new agreement, set up together with the labour unions, the works council and our employees.

To ensure we continue to attract the best talent and fill our talent pipeline, we offer students in the Netherlands and Germany work experience, apprenticeships and trainee programmes. In the Netherlands, we celebrated the tenth anniversary of the Power Minor programme, which enables students to learn more about energy production, transport and distribution. Working close with educational institutes is core to our recruitment strategy and having TenneT employees fulfilling part of their role at universities is contributing to this. In 2017, one of our employees was appointed as part-time professor at the Delft University of Technology, building the bridge between scientific knowledge and the actual operations within our company. For TenneT, this is the second professor at this university, next to several other TenneT employees contributing as lecturer at several universities.

We are also working to build understanding of our work among an even younger audience, with the Generation Discover festival in October. We joined some of our fellow companies in the technical sector, with the aim of acquainting this young target group with science and technology, in an easy and accessible way.

Our employees continue to be our greatest asset. To successfully meet the challenges of our constantly changing business environment and our stakeholder demands, we must rely on the performance of our people.

To make sure our people stay fit, vital and sustainably engaged we continuously offer tools and programmes, to help them organising their workload, stay energised and to live a healthy life. For health and vitality we have our Always Energy programme and to help our employees perform to best of their abilities we offer the Power to Perform programme.

Since 2016, we have measured the spread of our remuneration by comparing our highest and median full-time salaries, including fixed salary, variable remuneration and pension benefits.

	2017	2016
Remuneration ratio	7.5	7.0

* Detailed employee data per country can be found [online](#).

For 2017, this ratio is 7.5 compared to 7.0 in 2016, which is caused by higher inflow of new employees in Germany against a lower salary resulting in a lower median. The variable remuneration of our directors and employees is based on financial as well as non-financial performance, which includes our grid availability and safety performance.

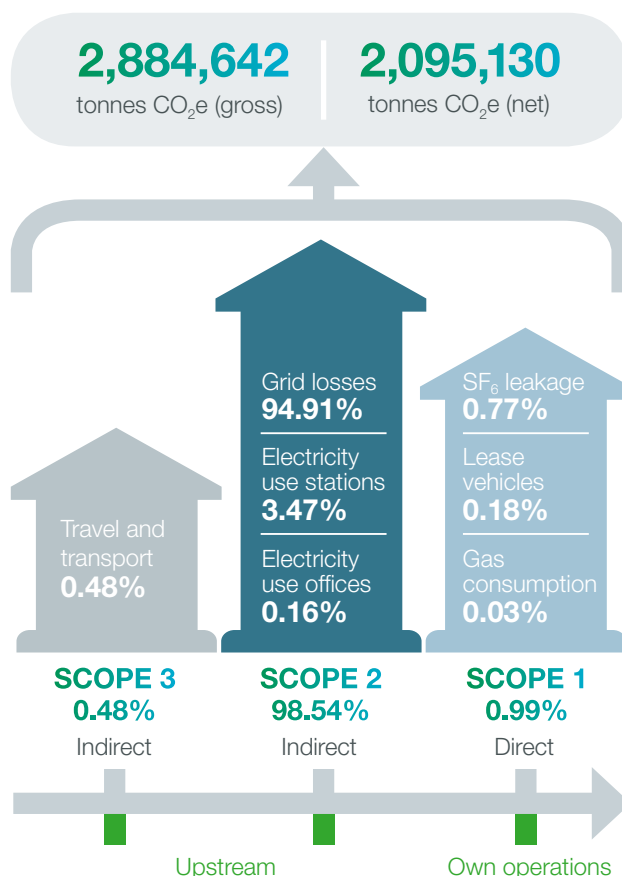
Our impact on the planet

We realise that our work has an impact on the environment and strive to avoid, minimise and compensate for this.

Although we try to avoid our impact where possible, we have to accept that we generate emissions, create waste, use non-renewable materials and that our infrastructure can also have an effect on biodiversity. We aim to be transparent about this, with full details available on our website.

In terms of our carbon emissions, over 95% are related to our grid losses, emitted during the production of electricity to compensate for our losses. The leakage of sulphur hexafluoride (SF₆) from our grid components and the electricity we use in our own operations account for the majority of the rest. Since we will 'green' our electricity use with green certificates to the maximum extent permissible by law, we report a gross carbon footprint (without greening) and a net carbon footprint (with greening).

Carbon footprint breakdown



Grid losses are the difference between the amount of produced electricity that enters our transmission system and the amount that is available for consumption. In 2017, our grid losses increased compared to 2016, to 5,080 GWh, which is caused by the distance the electricity must travel, the amount of electricity transported and grid

utilisation (including redispatch measures). All are strongly influenced by the geographical spread of renewable energy sources, such as offshore wind, and the integration of the European electricity market. Divided by the electricity that we transport, the relative carbon footprint is still increasing due to the large transport distances.

Carbon footprint	2017	2016	2015
Grid losses (GWh)	5,080	4,212	3,879
Gross carbon footprint/transported electricity	10.8	9.3	8.4

We use SF₆ gas for its excellent electrical insulating properties. However, we are aware it is also a harmful greenhouse gas – 23,900 times stronger than CO₂. We aim to reduce our relative SF₆ emissions by 20% in 2020 compared to 2015. On top of this, we have set an absolute target to keep SF₆ leakage until 2020 below the 2015 level. Knowing that our asset base will increase substantially, this target is ambitious.

Fortunately, we have been able to reduce leakages compared to 2016 by replacing some structural leaking assets. Our 2017 results show that we actually have reached our ambitions earlier than expected (a leakage rate of 0.28% is exactly 20% less compared to 2015 and our absolute emissions are below the 2015 values). Keeping this strong performance in the years ahead will remain important in the realisation of our SF₆ policy.

SF ₆ leakage	2017	2016	2015
SF ₆ leakage (%)	0.28%	0.38%	0.35%
SF ₆ leakage (kg)	934	1,248	1,106

In addition to climate impact, we also have to deal with climate risks. Our grid, for a large part above ground, is vulnerable to extreme weather conditions. As a result, our grid is constructed fully redundant on land, to make sure we can supply electricity at all times. Another risk associated with extreme weather is flooding. We are in dialogue with local and regional authorities on the possible consequences and work together on impact assessment and possible prevention measures.

The leakage of oil used in our transformers and cables can be another unfortunate local environmental impact of our operations. For new projects we use polyethylene cables, which do not contain any oil. Our oil leakage in 2017 was 6860 litres, which was mainly caused by a cable failure in the West of the Netherlands. Additionally, we had a lower number of 44 environmental incidents, mainly caused because we have less construction activities offshore.

Commitment to nature	2017	2016	2015
Oil leaked (litres)	6,860	2,087	14,091
Environmental incidents	44	58	84

Our Commitment to Nature vision underlines our approach to nature and illustrates our responsibility to minimise our environmental impact and protect and improve local nature. With assets throughout the Netherlands and Germany,

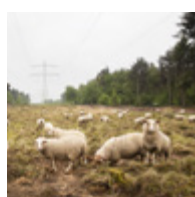
in national and international waters, and often in areas of natural beauty, we strive to balance our business activities with the impact they have on biodiversity, ecosystems and the landscape.



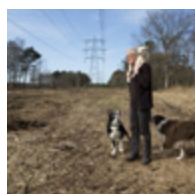
Commitment to nature



Almere, NL
Positive environment for insects



Boxmeer, NL
Green maintenance combined with biodiversity



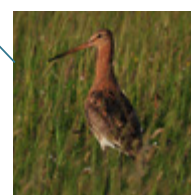
Rozephoeve, Oisterwijk, NL
Sheep enhance nature under our lines



Grothepolder, Nationalpark Wattenmeer
Optimal conditions for grassland birds



Nordeney island Germany
Natural salt marsh vegetation



East Frisia Germany
Breeding options for the black-tailed godwit



In 2017 we worked together with local governments and NGOs to enhance biodiversity and reduce the need for potentially harmful maintenance efforts. Examples include the transformation of forest into lower vegetation under our high voltage connection near Boxmeer, the Netherlands, and sheep that provide a safe strip under the high voltage connection, instead of mechanical cutting, in Oisterwijk, the Netherlands. In Germany, we have agreed with other TSOs and the NABU (Naturschutzbund Deutschland) to set-up a bird hot line. People that find a dead bird in the vicinity of our lines can call this line, managed by the NABU, which keeps a register. The information will be used to change the type of bird flaps we use and potentially help us design new lines that are safer for birds in the future. Our “nature map” shows activities that have a positive impact on local nature in the Netherlands and Germany.

Creating further positive impact with our commitment to nature, as laid down in our social investment policy, we have also started working with Park de Hoge Veluwe in the Netherlands in 2017 for a period of three years. We support the enhancement of nature in this park and will play an active role as partner, involving our employees.

Our commitment to take responsibility for our carbon footprint and our commitment to nature led to the opening of our first sustainable substation in Flevoland in November 2017. This newly built station has 80 solar panels making it largely energy self-sufficient. Outside the station, we created shelters for reptiles, insects and small mammals. In addition we re-used approximately one kilometre of old cable.

Our impact on our supply chain

We also work hard to instil this responsible behaviour, with respect to people and the planet throughout our value chain. To this end, we ask our suppliers to meet sustainability goals similar to our own. They must subscribe to our supplier code of conduct, which is based on the principles of the United Nations Global Compact (UNGC). TenneT has been a member of UN Global Compact since 2015 and our compliance includes our approach to human rights, which is particularly important in our supply chain.

We realise that human right abuses are more common, although not limited to, countries outside Europe and address this issue pro-actively with our suppliers through our code of conduct. We purchase our components from the world-wide markets and our components are made of materials that are either becoming scarce and/or have social issues in their supply chain. These critical supply chain issues are known to us and we see it as our responsibility to keep addressing this with our suppliers.

Impact on our supply chain



Our code requires suppliers and their sub-contractors to commit to human rights and ethical standards, as well as to decent labour conditions and to minimising their environmental impact. Our suppliers provide parts for our power lines and we need to be sure that none of them is involved, however indirectly, in child labour or any other human rights, ethical or environmental abuse. Since the introduction of our supplier code of conduct in 2015 it has been made a mandatory part (knock-out criteria) of all tender procedures, which makes that all suppliers (100%) adhere to our code.

Each year we audit several of our suppliers, asking them critical questions on these issues. We discuss with them how to improve where necessary. Suppliers who fail to meet our standards are disqualified from our qualification procedures. Since we introduced our code of conduct in 2015, we visited numerous suppliers for on-site audits. None of these were excluded from a tender due to a breach of our code of conduct.

CHALLENGE

The energy transition is altering the energy landscape. To cope with these developments, our capabilities and people need to change too.

Our huge investment portfolio will continue to put pressure on the environment. This is something our stakeholders are also increasingly taking note of.

Our supply chain responsibility can be challenging, because it is difficult to manage activities outside our direct span of control.

ACTION

Our people need to be healthy and agile to handle our ever-changing workload and we work hard to keep developing our internal staff, fostering diversity and deploying flexible external staff where necessary.

Environmental issues are becoming part of our investment decision-making, like the application of a CO₂ price to measure the climate impact of our investments. We will continue this approach in the years ahead.

We are constantly raising supply chain responsibility with our suppliers and discussing their obligations in this.

Outlook

We will continue to work to further improve our corporate social responsibility profile. To remain successful, we must understand our stakeholders' expectations and needs and keep them informed of our strategy and plans. We will have to work on the aspects where we have most impact: our people, our carbon footprint, nature and our supply chain. We will continue to engage with our stakeholders on these matters across various platforms, such as local community meetings, meetings with national and local governments, discussions with peers, as well as publications for the media and wider public.

Statements of the Executive Board

In control statement

The Executive Board is responsible for designing and operating TenneT's risk management and internal control system, and for reviewing its effectiveness.

The risk management and internal control system consists of the following:

- The enterprise risk management system aimed to identify, analyse, define mitigating measures and monitor the development of risks relevant to TenneT;
- The internal control framework aimed to manage critical processes, including control self-assessments to document the effectiveness of their control processes;
- Business plans and quarterly reports with information on corporate objectives and their achievement;
- Internal audits of critical processes and discussions on the follow-up to audit findings with relevant management;
- A follow-up on recommendations made in the external auditor's management letter;
- An internal Letter of Representation (LOR) process, resulting in a company-wide LOR signed by the Executive Board.

The Executive Board reviews and analyses the strategic, operational, financial and compliance risks to which TenneT is exposed. It also regularly assesses the design and effectiveness of the risk management and internal control system. The results of these assessments are shared with the Audit, Risk and Compliance Committee, the Supervisory Board and the external auditor.

The risk management and internal control system does not provide absolute assurance that corporate objectives will be achieved, nor does it give absolute assurance that material errors, losses, fraud or violations of laws and regulations will not occur in the operational processes and/or the financial reporting.

With due regard to the above, the Executive Board is of the opinion that TenneT's risk management and internal control system has established that the financial reporting does not contain any errors of material significance and that the risk management and internal control system has operated adequately in the year under review.

Statement of responsibility

We confirm that, to the best of our knowledge, the financial statements for the period 1 January to 31 December 2017 have been prepared in accordance with IFRS, as adopted by the EU, and with Part 9, Book 2 of the Dutch Civil Code; that the disclosures in the financial statements are a true and fair view of TenneT's assets, liabilities, financial position and results as a whole; and that the disclosures in the annual report give a true and fair review of TenneT's performance, results and position, together with a description of the most significant risks and uncertainties we face. Furthermore, the Group has adequate resources to remain in operation and consequently the financial statements have been prepared on a going concern basis.

Arnhem, 20 February 2018

J.M. Kroon *
B.G.M. Voorhorst *
O. Jager *
A.A. Hartman
W. Breuer

* Statutory Director





J.M. (Mel) Kroon

Chair Executive Board / Chief Executive Officer



B.G.M. (Ben) Voorhorst

Member of the Executive Board / Chief Operating Officer

Our Executive Board

J.M. (Mel) Kroon

Chair Executive Board / Chief Executive Officer

1957, Dutch

Initial appointment: 2002

Other positions qualitate qua:

- Chair of the Supervisory Board of TenneT TSO GmbH
- Chair of the Supervisory Board of NOVEC B.V.
- Member of the Supervisory Board of EPEX SPOT S.E.
- Chair of the Supervisory Board of Relined B.V.
- Member of the Supervisory Board of OTC B.V. (Open Tower Company) as of 1 January 2018
- Chair of the Board of Directors of HGRT S.A. (Holding des Gestionnaires de Réseau de transport d'Electricité)

Other positions:

Restrictive arrangements according to the Dutch Management and Supervision act apply:

- Member of the Supervisory Board of TKH Group N.V.
- Member of the Supervisory Board of Koole Terminals Holding B.V.

Other positions:

- Member of the Board of the Dutch-German Chamber of Commerce
- Member of the Supervisory Board of Coöperatie VGZ

B.G.M. (Ben) Voorhorst

Member of the Executive Board / Chief Operating Officer

1959, Dutch

Initial appointment: 2006

Other positions qualitate qua:

- Managing director of TenneT TSO B.V.
- President of ENTSO-E
- Member of the Board of Netbeheer Nederland
- Member of the Cyber Security Council
- Member of the Cooperation Board of TSCNET Services GmbH
- Member of the Supervisory Board of ETPA Holding B.V.





O. (Otto) Jager

Member of the Executive Board /
Chief Financial Officer



A.A. (Lex) Hartman

Member of the Executive Board



W. (Wilfried) Breuer

Member of the Executive Board

O. (Otto) Jager

Member of the Executive Board / Chief Financial Officer

1970, Dutch

Initial appointment: 2013

Other positions qualitate qua:

- Managing director of TenneT TSO B.V.
- Member of the Supervisory Board of TenneT TSO GmbH
- Member of the Supervisory Board of Relined B.V.

A.A. (Lex) Hartman

Member of the Executive Board

1956, Dutch

Initial appointment: 2008

Other positions qualitate qua:

- Managing director of TenneT TSO GmbH
- Managing director of TenneT GmbH & Co KG
- Managing director of TenneT Verwaltungs GmbH
- Chair of the Board of BritNed Development Ltd.
- Director of NLink International B.V.
- Member of the Supervisory Board of Novec B.V.

W. (Wilfried) Breuer

Member of the Executive Board

1965, German

Initial appointment: 2014

Other positions qualitate qua:

- Managing Director of TenneT Offshore GmbH
- Managing Director of TenneT TSO GmbH
- Member of the German committee of CIGRE
- Member of the Administration Council of FGH eV





SUPERVISORY BOARD

report

Preface

We realise that a word of thanks can easily be seen as a mere platitude, but we sincerely appreciate the work of TenneT's Executive Board and employees, demonstrating TenneT's commitment to investing in a reliable and secure electricity grid. Over the course of the year, TenneT successfully dealt with significant challenges while continuing its vital work on several crucial investment projects. Besides providing transmission and system services, TenneT's task is to facilitate a smooth-functioning electricity market and to support the large-scale transition to renewables. TenneT plays a leading role in shaping an integrated European electricity market. Throughout all of this, TenneT remained focused and dedicated to its central purpose of safeguarding the safety and security of supply. These are significant achievements and it is the hard work, dedication and continuous commitment of TenneT's employees that made this possible.

Integrating renewable sources of energy into the grid while keeping the flow of electricity balanced and stable, requires substantial investments and careful decision making. As TenneT's Supervisory Board we are closely involved in this critical process, overseeing and advising the Executive Board on strategy as well as on operational performance. The topics we discussed, the dilemma's we weighed and the challenges we faced in 2017 are outlined below.

Strategy

TenneT reviewed its strategy back in 2015, resulting in the five-year strategy: 'Enabling the Change'. We monitor its implementation on an ongoing basis. We welcome the dialogue with the Executive Board that is part of our regular meetings. In October 2017, we dedicated a separate meeting to an in-depth review of the progress TenneT has made with regard to its strategic goals. We were generally satisfied with the results achieved so far, but acknowledged a highly demanding and challenging environment.

Deliver stakeholder value

Because TenneT operates in a stakeholder field where many different interests are at play, it is important to stay in close contact with all stakeholder groups and identify where and how to deliver value. The work involved in maintaining and expanding the grid is followed closely by a wide range of stakeholders. These include our shareholder, the Dutch and German authorities, the general public, our customers, our suppliers, NGOs, politicians, regulators, investors, the media, other European TSO's and our employees. Discussing alternatives as well as creating understanding and acceptance is therefore very important. As the Supervisory Board, we realise that stakeholder interests are not always aligned. Everyone wants electricity, but nobody is excited about the prospect of new lines in their area. We encouraged the company to transparently communicate trade-offs in this respect.

Engage stakeholders

People in the Netherlands and large parts of Germany depend on TenneT for a reliable and uninterrupted source of electricity. TenneT's high-voltage grid supports the daily lives of 41 million people's each and every day. As the Supervisory Board, we support TenneT meeting with stakeholders in an open and transparent way. We held the annual General Meeting of Shareholders in March, at the Visitor Centre Leiderdorp, a central location in the densely-populated Dutch Randstad. After the meeting, the Supervisory Board discussed environmental resource management with the shareholder, the Executive Board and a number of specialists. Weighing what residents want from their environment versus the need to build necessary infrastructure can be complicated. We welcome TenneT's insistence on keeping all lines of communications open with residents and engaging in an ongoing dialogue with them.

In May 2017, we visited TenneT's newly-opened high-tech Virtual Vision centre in Berlin. Virtual Vision offers an interactive 360-degree experience, allowing visitors to



experience the day-to-day business of a grid operator and the challenges of the energy transition through state-of-the-art virtual and augmented reality technologies. Virtual Vision sets new standards for us in corporate and stakeholder communication.

We were in frequent contact with our shareholder throughout 2017. This is crucial since the Dutch state wants to be an active shareholder and the dynamics, both at TenneT and in the energy landscape, are constantly changing.

Discussions on revising the remuneration policy that started in 2016 continued separately with the shareholder throughout the year. These discussions have not led to a revision of the policy.

Secure supply

TenneT needs to make substantial and complex investments in order to strengthen the grid in both Germany and the Netherlands. As a result, onshore and offshore grid connections and cross-border interconnector capacity were high on our agenda this year. We carefully assessed the strategic, societal, financial, and technical aspects of these investments, in line with our mandate. We need to take a very broad and long-term view, as these factors do not always work in the same way and can lead to different outcomes. The most attractive option from an environmental perspective for instance, may also be too expensive. Besides these clear current dilemmas, we also have to look at the long term. TenneT's assets are very long-term investments, yet the market is changing very fast with the inflow of renewables and technological developments. The Supervisory Board has been discussing options and alternatives that have to be taken into account when making decisions for now and the future: we do not want to build too much and burden society with obsolete assets down the line.

Strategic Investment committee

Throughout the year, the Strategic Investment Committee reviews investment proposals above EUR 50 million each and advises the Supervisory Board. The Strategic Investment Committee assesses whether a proposal is compatible with the company's economic, financial, and technical objectives, as well as with TenneT's risk profile and the impact an investment will have on stakeholders. The dilemmas we discussed this year included issues such as the cost of grid expansion versus those of redispatch, as well as the costs involved in underground cabling,

often necessary to spare the landscape and gain public acceptance. The Strategic Investment Committee also monitors timeliness, quality, cost efficiency and the risks associated with large projects.

In 2017, the committee held six meetings, each with relevant members of the Executive Board present. Most of these meetings were attended by Mr. Veenman and/or Mrs. Griffith as guests.

In 2017, the Strategic Investment Committee consisted of Mr Fischer (Chair) and Mr Zwitterloot. Mr Zwitterloot took over the chair position from Mr. Fischer after he stepped down from the Supervisory Board in September 2017. As of 1 December 2017 Mrs Griffith joined the Strategic Investment Committee.

Cyber security

(Cyber) Security is an important issue in today's society and very high on our radar due to the critical nature of TenneT's core business. TenneT presented its security strategy, corporate policies, technology and the efforts of employees extensively to the Supervisory Board and we assessed these throughout the year.

Lead NWE integration

Ever-increasing amounts of renewable energy are flowing into the system. Further integration of the North Western European markets, as well as upgrading the Dutch and German electricity grid, are necessary to ensure security of supply. TenneT is a thought leader in establishing a single European energy market and has more interconnectors in place across national borders than any other TSO in Europe. International cooperation and a high degree of onshore and offshore connectivity are crucial to realising the energy transition and securing an uninterrupted and cost-efficient supply of electricity. We believe that it is in society's interest that TenneT and its north-west European counterparts cooperate and expand their role of facilitating the energy transition. Balancing European goals with national and security of supply interests can be very challenging at times.

The Supervisory Board welcomed the fact that Ben Voorhorst, COO of TenneT, was elected President of the European Network of Transmission System Operators, ENTSO-E.

Innovate business

Innovation is high on our list of priorities, particularly the innovation roadmap, innovation programs and the way



TenneT structures and governs innovation. Effecting change in a corporate culture where reliability is inherently valued highly is not an easy task.

The Supervisory Board discussed the development of North Sea energy infrastructure in depth with the Executive Board, who presented a 3-phase approach (current programme, midterm and long term).

Operational performance

Financial

TenneT must weigh the financial interests of its shareholder against its duty to ensure electricity remains affordable and available to all. TenneT's license to operate is rooted in securing electricity supply in its markets, while delivering maximum benefit to society in the most financially viable way.

Audit, Risk and Compliance Committee

The Audit, Risk and Compliance Committee monitors the company's financial reporting, including our quarterly and annual reports, financing in light of the investment portfolio, risk management and internal control system, internal audit, the independent external audit of the financial statements and the evaluation of the external auditor. In 2017, the committee also reviewed the Treasury Statute and assessed the governance of risk management and internal controls. It discussed the management letter of the external auditor, too. The external auditor did not identify any high risk observations in its management letter; the findings were of medium and low risk. The main conclusion in the letter is that TenneT has improved its risk and control organisation further compared to 2016. When discussing the management letter, the committee paid specific attention to the opportunities to further develop the internal control framework, the size of the investment portfolio and requirements from a budget control perspective and cyber risk.

In 2017, the Audit, Risk and Compliance Committee consisted of Mr Verboom (Chair) and Mr Veenman with Mrs Hottenhuis joining the committee on 1 December 2017. The committee held four meetings attended by the CEO, the CFO, the senior manager for Internal Audit, the senior managers for Corporate Financial and Business Control and the company's external auditor. As in previous years, the Audit, Risk and Compliance Committee also spoke to the external auditor without the board being present. No additional material topics arose from these meetings.

The appointment of the external auditor was extended by a period of two years to 2018 and 2019.

Risk management

Individual interviews were conducted with the members of the Supervisory Board as part of the 2017 annual strategic risk assessment. The dilemma of accommodating the rapid growth of the company while simultaneously controlling risks was accepted as the basis for the strategic risk assessment. The Executive Board was responsible for finalising the set of strategic risks as mentioned in the section 'Risk management and internal control'.

Quarterly progress reports on large projects were reviewed by the Strategic Investment Committee and subsequently by the Supervisory Board. These reports focussed on project management, with specific attention paid to timely delivery, risks of delays and interruptions, and the societal demands that could lead to delays and/or projects becoming more expensive.

Compliance and integrity

Compliance and integrity are matters that both require constant attention. The Supervisory Board met with the recently appointed lead compliance & integrity officer, who presented the plans for policies, education and prevention. The Supervisory Board discussed the quarterly compliance and integrity reports.

Financing

TenneT's financing position, financing structure and overall financing plan were also assessed by the Supervisory Board, including shareholder objectives, the long-term continuity of the company and short-term liquidity needs. Topics discussed included the financing structure of the TenneT Group, cash flow and liquidity forecasts, equity solutions and several debt financing instruments.

The Supervisory Board welcomes the commitment of the Dutch state, as underlined by its equity contribution for the coming years. It is also keeping a close eye on the balance between the shareholder's focus on the Dutch investment portfolio and the equity needs for the entire TenneT Group. In this respect, we appreciate the successful launch of the first-ever green hybrid bond, totalling EUR 1 billion. Give the company's sizable investment programme, further equity will be needed to ensure continuing access to other financing. We actively discussed alternatives with the Executive Board as well as the shareholder.



Regulation

The Supervisory Board continues to discuss the implications of TenneT operating in a regulated environment, both in the Netherlands and in Germany. Ongoing relevant issues include striking a balance between regulatory optimisation and creating value for society and the concurrence of growing company profits and increasing grid tariffs. The Supervisory Board also discussed the (implications of) changes in the regulatory regime, such as the German offshore opex cost compensation and Dutch redispatch costs.

Integrated reporting and audit

TenneT's financial statements for the 2016 financial year, the 2017 internal quarterly reports and the 2017 interim results were all discussed by the Supervisory Board during the year. These meetings also covered the independent auditor's report, internal audit reports, results from internal risk and control assessments, the 2018 budget and the medium-term plan for 2018-2020.

Financial statements

The Supervisory Board has examined the Integrated Annual Report 2017, the financial statements 2017 and independent auditor's report, the assurance report related to non-financial information, the management letter and the audit results report issued by TenneT's external auditor. This review is based on the Audit, Risk and Compliance Committee's preparatory work and advice. As a result, the Supervisory Board endorses the documents and recommends that the General Meeting of Shareholders adopts the financial statements.

The Supervisory Board recommends that the General Meeting of Shareholders discharges the Executive Board from liability in respect of its management of the company and releases the Supervisory Board from liability in respect of its supervision.

Non-financial

Planet

Although TenneT is facilitating the transition to green energy, its activities have an unavoidable impact on nature. As TenneT's Supervisory Board, we are fully aware of our responsibility to protect the natural environment for future generations. TenneT's Commitment to Nature vision underlines the company's approach to biodiversity, ecosystems and the natural landscape.

People

TenneT's people are at the heart of the company's continued success and growth. The Supervisory Board aims to help create a safe, healthy, stimulating and energising workplace where TenneT employees can perform to the best of their abilities. Attracting the right people in an environment where talented technical specialists are scarce and empowering them to perform is crucial to TenneT's ongoing success.

The employee survey conducted in 2017 was presented to and discussed by the Supervisory Board. Overall we were satisfied with the survey results compared to the benchmarks for industry and other high-performing companies. However, the survey also gave us some food for thought (and concrete actions) on issues such as operational efficiency. The Supervisory Board welcomed the introduction of a LEAN programme and has been closely following its implementation.

Safety

Safety at TenneT is one of the Supervisory Board's key focus areas, particularly the company's safety performance, which is benchmarked against TenneT's peers and overall best-performing companies. The Supervisory Board continued to closely monitor the implementation of TenneT's Safety Vision 2018 – introduced in 2014 – and discussed the LTIF, which unfortunately did not decline despite the efforts as it did in previous years. Suppliers not meeting TenneT's safety targets is a major point of attention.

During its meetings, the Supervisory Board discussed individual safety incidents, as well as the lessons learned and best practices from other industries.

Remuneration and Appointments Committee

The Remuneration and Appointments Committee is tasked with the company's remuneration policy and the remuneration of individual board members. The Remuneration and Appointments Committee also establishes criteria for (re)appointing new statutory Executive Board and Supervisory Board members and supervises the recruitment process. Furthermore, it is responsible for the management review and succession planning regarding the Executive Board.

In 2017, the Remuneration and Appointments Committee consisted of Mrs Hottenhuis (Chair), Mrs Griffith and Mr Veenman. The committee held five meetings, the majority of which were attended by the CEO. Discussions concerning the remuneration report were held in the presence of the CFO.



In the second half of 2017 the Remuneration and Appointments Committee has been extended with Mr Verboom in light of the selection process for the successor of the CEO, Mr Kroon.

Selection, appointments, remuneration and performance

Selection and succession concerning TenneT's Executive Board are an important task for the Supervisory Board. As part of this, the Supervisory Board conducts performance appraisals of the members of the Executive Board, which consists of four statutory directors and two non-statutory directors. The Remuneration and Appointments Committee gathers input for these appraisals during a Supervisory Board meeting not attended by the Executive Board.

To gather more insight in Executive Board team dynamics as well as the individual functioning, the Supervisory Board members met with individual Executive Board members, something which was deemed valuable by all parties concerned. These meetings will now be organised annually. As in previous years, the CFO had multiple meetings with the chairman of the Audit, Risk and Compliance Committee outside the regular meetings.

Apart from assessing the performance of the Executive Board, the Supervisory Board also discussed the performance of TenneT's wider senior management team, including succession planning. The Supervisory Board frequently discussed issues relating to remuneration as well. In 2017, specific discussion topics included targets set for the variable remuneration of the statutory Executive Board members and the 2016 remuneration report.

In the course of 2017 Mr Kroon announced to the Supervisory Board his wish to step down as CEO in 2018. The Remuneration and Appointments Committee has started the search for a successor to Mr Kroon, who will remain in his role until this process has been completed.

End November 2017, Mr Keussen announced his resignation from the Executive Board as of 1 March 2018, laying down his responsibilities with immediate effect. The Supervisory Board is grateful for everything Mr Keussen has done for the company in the three years he has served on the Executive Board, in particular in terms of asset management, big data and operational efficiency. The Supervisory Board discussed the interim redistribution of tasks within the Executive Board. The Supervisory Board will reassess the composition of the Executive Board and corresponding portfolios in the first quarter of 2018.

Diversity and culture

TenneT aims for its Executive Board and Supervisory Board to be comprised of people from diverse backgrounds with a range of experience, skills and knowledge. TenneT values this diversity and believes it contributes positively to the way situations are assessed and decisions made. Bearing in mind the Dutch Civil Code and Dutch Corporate Governance Code, the Supervisory Board set a gender diversity target of 30% female directors, both executive and non-executive. The Supervisory Board is fully aware that TenneT's Executive Board currently lacks gender diversity. The percentage of female representatives in our Supervisory Board is already above our target of 30%.

TenneT's current culture is still characterised by a focus on stability, quality, careful planning, and maintaining its reputation. There is great pride in the company with its employees and a high level of integrity as the basis for everything they do. People are loyal and committed, as illustrated by low levels of sickness absence.

In 2017, the Supervisory Board deliberated on the company's organisational culture and the need to balance the organisational internal focus on stability and reliability vs. employees' readiness to change.

Corporate governance code

The Supervisory Board discussed the revised Dutch Corporate Governance Code and supported the implementation of this code.

Contact with the Works Council

Fostering good relations with the Works Council, which represents employee interests, is important to the Supervisory Board given the rapid developments in the energy market in general and at TenneT in particular. As such, the chairman of the Supervisory Board regularly met with members of the Works Council during the year to keep abreast of employee issues and concerns. As of 2018, Mrs Griffith will take over Mr Veenman's position on the Supervisory Board as the first point of contact for the Works Council. The Supervisory Board welcomed the joint meeting it attended in December with the Works Council and the Executive Board because it presented a good opportunity for active dialogue on safety and safety culture and exchanging experiences gathered by other industries.

Ongoing education

Newly appointed Supervisory Board members participate in a programme introducing them to TenneT's key business areas.



The Supervisory Board considers ongoing education like this to be very important. In 2017, two workshops were held, focusing on regulation and offshore operations & maintenance respectively. Members of the Supervisory Board also visited TenneT's office in Berlin. Site visits and workshops (presented by the senior managers) are a good opportunity for the Supervisory Board members to meet with TenneT employees across the company. It is also worth noting in this regard that Mr Veenman took part in an Operational Project Leaders session and Mr Verboom presented at a staff meeting of the Internal Audit department.

Composition of the Supervisory Board

Many factors are considered in the composition of TenneT's Supervisory Board, including the nature of the company, its diversity and the required expertise and background of its members.

In accordance with the Dutch Corporate Governance Code, all Supervisory Board members are independent. Furthermore, the Supervisory Board complies with the Electricity Act, which stipulates that the majority of Supervisory Board members has no direct or indirect links with legal entities (or shareholders thereof) engaged in the production, purchase or supply of electricity or gas. Mrs Hottenhuis holds a position at Arcadis, a company which TenneT has a supplier relationship. It should be noted that Mrs Hottenhuis has not been involved in any business dealings between Arcadis and TenneT. Contract reviews, negotiations or awards between the companies were conducted at the appropriate business levels and in the ordinary course of business.

In 2017, Mrs Hottenhuis was reappointed by the shareholder for her second term. This reappointment was discussed internally by the Supervisory Board and an interview with the shareholder was held as part of the reappointment process.

Mr Zwitserloot is a member of the *Aufsichtsrat* of TenneT TSO GmbH, the German equivalent of the Supervisory Board.

The third term of Supervisory Board chairman Mr Veenman ended in March 2017. In accordance with the applicable statutory provisions, Mr Veenman shall retire no later than at the close of the first general meeting after the end of his third term, i.e. at the annual General Meeting of Shareholders on 22 February 2018.

Following the nomination of the Supervisory Board, the shareholder appointed Mr Ab van der Touw as the new chairman of the Supervisory Board as of 1 June 2018. From 22 February 2018 through 1 June 2018 Mr Verboom, the vice-chairman of the Supervisory Board, will act as chair.

In September 2017 Mr Fischer resigned as a member of the Supervisory Board of TenneT Holding B.V. because of a possible dispute between TenneT and Tata Steel IJmuiden B.V. concerning the power failure in Diemen back in 2015. This dispute may arise following the decision in this matter issued by the responsible regulator, the Authority for Consumers & Markets (ACM). As the CEO of Tata Steel Europe, Mr Fischer decided to step down from the Supervisory Board in order to avoid any potential conflicts of interest. The Supervisory Board is grateful for the contribution and dedication of Mr Fischer during the almost four years he served as a member of the Board.

The number of Supervisory Board members will be reviewed in 2018, bearing in mind the changes to the Supervisory Board with Mr Veenman retiring as of 22 February 2018 and Mr van der Touw being appointed as of 1 June 2018.

For more information on the members of the Supervisory Board as well as the (re)appointment schedule, please visit our website.

Supervisory Board evaluation

The Supervisory Board evaluated its own performance in 2017 by way of a questionnaire of over 60 questions completed by all members of the Supervisory Board. In addition, the shareholder was asked for feedback, as were all the members of the Executive Board. The chairman of the Supervisory Board also conducted individual interviews with his fellow board members, the results of which he presented and discussed in a Supervisory Board meeting. One of the main findings from this review concerns the need to get more involved in the talent development of (senior) management below the Executive Board. This resulted in a discussion of the annual management review in a plenary Supervisory Board meeting.

The performance review also revealed the importance of informal contact. Both the Supervisory Board and the Executive Board went on a two-day visit to TenneT's Berlin office in May 2017, where, in addition to attending business meetings, board members had the opportunity to meet informally. In September, all of the members of the Supervisory Board and Executive Board and their partners attended a farewell dinner for Mr Fischer.



As of 2017, each Supervisory Board meeting ended with an evaluation of the meeting. Open feedback on topics such as setting the agenda, the quality of documents submitted, and the effectiveness and atmosphere of the meeting proved valuable. One further issue to be addressed is the length of the meetings, bearing in mind the range of topics that need to be discussed. The dilemma in this case is to what extent topics should only be discussed in detail by the committees vs. the overall responsibility of all Supervisory Board members for these topics.

Corporate secretary

The Supervisory Board and its members are consistently supported in their work by the corporate secretary Ms van Rassel; this contribution is greatly valued by the Supervisory Board.

Supervisory Board meetings and other topics

In this report, we as a Supervisory Board aim to reflect the discussions held in 2017 at its Committee meetings as well as its six regular plenary meetings. All of these plenary meetings were attended by all of the required parties, except one, when Mr Fischer was absent.

Besides the above-mentioned topics, other topics covered by the Supervisory Board in 2017 included the results of TenneT's latest reputation survey, the Dutch legislative process on the progress of the energy transition 'Voortgang Energietransitie' and the construction of TenneT's new German headquarters.

As the Supervisory Board, we have advised and overseen the policies of the Executive Board during 2017, helping to ensure that TenneT continues to play a leading role in the fast-changing and challenging integrated European electricity market. We look forward to continuing our work in 2018.

Arnhem, 20 February 2018

Supervisory Board TenneT Holding B.V.

A.W. Veenman
P.M. Verboom
R.G.M. Zwitterloot
S. Hottenhuis
L.J. Griffith



Board remuneration

This section on board remuneration specifies the current remuneration for the statutory directors in 2017, their success at meeting set targets and the resulting awards of variable remuneration.

The report also specifies the remuneration received by the members of the Supervisory Board. For further details on the remuneration policy [click here](#).

Remuneration of the statutory directors

Fixed and variable remuneration

(in EUR thousand)	Fixed remuneration		Variable remuneration (annual)	
	2017	2016	2017	2016
J.M. Kroon Chief Executive Officer	355	355	71	57
U.T.V. Keussen Vice-chair Executive Board	351	351	65	49
B.G.M. Voorhorst Chief Operating Officer	272	272	51	38
O. Jager Chief Financial Officer	265	265	48	40

Fixed remuneration

In accordance with the indexation as of June 2017 for employees as determined by the 'NWb' collective labour agreement for grid companies, the salaries of all statutory directors will be indexed by 1.5% as of 1 January 2018.

Variable remuneration

The Supervisory Board decided on the statutory directors' variable payment realisation percentages over 2017 based on the achievement of present targets. The realised percentages are included in the table below. The Supervisory Board has concluded that there are no current insights that might lead to the revision of the variable remuneration paid out in former years.

	J.M. Kroon		U.T.V. Keussen		B.G.M. Voorhorst		O. Jager	
	Realised	Maximum	Realised	Maximum	Realised	Maximum	Realised	Maximum
Security of supply and safety	38.1%	45.0%	38.1%	45.0%	38.1%	45.0%	38.1%	45.0%
Security of supply	15.0%	20.0%	15.0%	20.0%	15.0%	20.0%	15.0%	20.0%
Safety	23.1%	25.0%	23.1%	25.0%	23.1%	25.0%	23.1%	25.0%
Financial	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
EBIT	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%
ROIC	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%
Strategy	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
Operations	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	22.5%	25.0%
Individual targets depending on Individual board member's portfolio	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	22.5%	25.0%
Total variable remuneration realised in 2017	93.1%	100.0%	93.1%	100.0%	93.1%	100.0%	90.6%	100.0%



Pension cost

(in EUR thousand)	2017			2016		
	Pension contribution	Pension compensation	Total pension costs	Pension contribution	Pension compensation	Total pension costs
J.M. Kroon Chief Executive Officer	68	96	164	64	94	158
U.T.V. Keussen Vice-chair Executive Board	107	n/a	107	110	n/a	110
B.G.M. Voorhorst Chief Operating Officer	21	30	51	19	30	49
O. Jager Chief Financial Officer	21	22	43	18	22	40

The pensions of all Dutch statutory directors are administered by the ABP Pension Fund. The pension accrual is based on a midpoint salary system. Besides the ABP pension, additional pension is accrued for the CEO to facilitate retirement at 61 years of age, under a non-contributory pension plan based on total income, agreed when he joined the company. Pension accruals considering the German income of the Dutch statutory directors based on the German activities are organised in a standard

defined contribution contract with Swiss Life. The pension entitlements of the German Vice-chair are based on the so-called Beitragsplan, a company agreement applicable for all employees of TenneT in Germany.

Based on an agreement with the Supervisory Board from 2010, the CEO acquired leave days in 2017 with a value of EUR 25,545 (2016: EUR 25,545).

Other allowances and secondary benefits

(in EUR thousand)	Secondary benefits		Estimated value private use company car ¹⁾	
	2017	2016	2017	2016
J.M. Kroon Chief Executive Officer	8	8	4	3
U.T.V. Keussen Vice-chair Executive Board	-	-	5	5
B.G.M. Voorhorst Chief Operating Officer	6	6	7	7
O. Jager Chief Financial Officer	6	6	10	7

1) Based on estimated private mileage

All statutory directors use a company car, the estimated value of the private use of this car is shown in the above table. In addition, with respect to the private use of leased vehicles, the customary addition to taxable income is applicable for personal income tax purposes. The company does not reimburse its directors for any personal income tax consequence resulting from the private use of leased cars.

Mr Jager was temporarily stationed in Germany until 1 August 2017. As such, a number of associated costs were reimbursed, including travel costs, housing costs, school fees, and an allowance was allocated in accordance with the company's expat policy. These reimbursements did not contain a remuneration component.

Each statutory director received a monthly allowance for necessary business expenses, of EUR 3,300 a year.

This monthly allowance is not included in the table as it is a compensation of costs and not a remuneration component.

For the Dutch statutory directors the secondary benefits as shown in the above table include the contribution to the life-course savings scheme based on the 'NWb' collective labour agreement for grid companies, a contribution to health insurance and a budget for flexible terms of employment. There are no comparable secondary benefits or allowances based on the Tarifvertrag for the German statutory director.

The total remuneration paid to the statutory directors is reconciled to and further disclosed in the [note 3.2.2 of the consolidated financial statements](#).



Remuneration of the Supervisory Board

The remuneration policy for the Supervisory Board defines the remuneration for the different roles and committees of the Supervisory Board. Each Supervisory Board member is either a member or chair of one or two committees. To

establish a link between the Supervisory Board and the Aufsichtsrat of TenneT TSO GmbH, one of the members of the Supervisory Board is also a member of the Aufsichtsrat.

The responsibilities on the committees are as follows:

	Supervisory Board	Audit, Risk and Compliance Committee	Remuneration and Appointments Committee	Strategic Investments Committee	Aufsichtsrat TenneT TSO GmbH
A.W. Veenman	Chair	Member	Member		
P.M. Verboom	Vice-chair	Chair	Member ¹⁾	Member ²⁾	
R.G.M. Zwitterloot	Member			Chair ²⁾ (before Member)	Member
S. Hottenhuis	Member	Member ²⁾	Chair		
J.L.M. Fischer, until 11 September 2017 ³⁾	Member			Chair	
L.J. Griffith	Member		Member	Member ²⁾	

1) Temporary

2) As of 1 December 2017. The total remuneration will be adjusted, if applicable, as of 1 January 2018.

3) Mr Fischer resigned on 11 September 2017. For further details, please see the Supervisory Board report.

The total remuneration received by members of the Supervisory Board in 2017 was as follows:

(in EUR thousand)	Fixed remuneration		Committee fee		Total remuneration	
	2017	2016	2017	2016	2017	2016
A.W. Veenman	28	28	12	12	40	40
P.M. Verboom	22	22	9	7	31	29
R.G.M. Zwitterloot	20	20	11	11	31	31
S. Hottenhuis	20	20	5	5	25	25
J.L.M. Fischer	15	20	4	5	19	25
L.J. Griffith	20	20	5	5	25	25

The shareholder decided to introduce an annual indexation of the Supervisory Board remuneration following the 'Nwb' collective labour agreement for grid companies, as of 1 January 2015.

The Supervisory Board remuneration will be indexed by 1.5% as of 1 January 2018. The remuneration was as follows in 2017:

(EUR)		
Chair	27,840	per annum
Vice-chair	22,390	per annum
Member	19,982	per annum
Audit, Risk and Compliance Committee	6,656	per annum
Remuneration and Appointment Committee	5,264	per annum
Strategic Investment Committee	5,264	per annum
Aufsichtsrat TenneT TSO GmbH	5,500	per annum



A.W. (Aad) Veenman
Chair of the Supervisory Board



P.M. (Pieter) Verboom
Vice-chair of the Supervisory Board

Our Supervisory Board

A.W. (Aad) Veenman

Chair of the Supervisory Board / Member of the Remuneration and Appointment Committee / Member of the Audit, Risk and Compliance Committee

1947, Dutch

Initial appointment: 9 March 2005

End of third term: 9 March 2017*

* Actual statutory retirement shall be no later than at the close of the first general meeting after this date, i.e. at the annual General Meeting of Shareholders on 22 February 2018

Principal position:

- Former President of N.V. Nederlandse Spoorwegen

Other positions:

- Chair of the Supervisory Board/ Member of the Audit and Risk Committee of Achmea B.V.
- Chair of the National Economic Cluster Logistics
- Chair of Foundation Continuity SBM offshore N.V.
- Advisor of Royal Huisman B.V.
- Member of the Supervisory Board of SURF

P.M. (Pieter) Verboom

Vice-chair of the Supervisory Board / Chair of the Audit, Risk and Compliance Committee

1950, Dutch

Initial appointment: 18 September 2012

End of second term: 18 September 2020

Principal position:

- Former CFO of RFS Holland Holding
- Former Executive Vice President and CFO of Schiphol Group

Other positions:

- Chair of the Supervisory Board and member of the Audit Committee and Remuneration Committee of Ampelmann Operations B.V.
- Chair of the Curatorium Master Register Controllers and Advisor Programme 'The new CFO' (Erasmus University Rotterdam)
- Expert lay member of the Dutch Enterprise Court
- Member of the Advisory Board of NIBC





S. (Stephanie) Hottenhuis
Member Supervisory Board



R.G.M. (Rien) Zwitserloot
Member of the Supervisory Board



L.J. (Laetitia) Griffith
Member of the Supervisory Board

S. (Stephanie) Hottenhuis

Member of the Supervisory Board / Chair of the Remuneration and Appointment Committee

1965, Dutch

Initial appointment: 1 September 2013

End of second term: 1 September 2021

Principal position:

- Member of the Executive Board of Arcadis N.V.

Other positions:

- None

R.G.M. (Rien) Zwitserloot

Member of the Supervisory Board / Chair of the Strategic Investments Committee

1949, Dutch

Initial appointment: 24 November 2010

End of second term: 24 November 2018

Principal position:

- Former CEO of Wintershall AG

Other positions:

- Member of the Supervisory Board of Royal VOPAK N.V.
- Member of the Supervisory Board of Amsterdam Capital Trading Group B.V.
- Member of the Supervisory Board of Vroon B.V.

L.J. (Laetitia) Griffith

Member of the Supervisory Board

1965, Dutch

Initial appointment: 1 July 2015

End of first term: 1 July 2019

Principal position:

- Former state councillor in the advisory division of the Dutch Council of State

Other positions:

- Vice-chair of the Supervisory Board of KPMG
- Chair of the Supervisory Board of Holding Nationale Goede Doelen Loterijen
- Chair of the Dutch security industry association Nederlandse Veiligheidsbranche
- Member of the board of VNO-NCW
- Member of the board of the Netherlands Film Fund
- Member of the Supervisory Board of Gassan Diamonds B.V.



GOVERNANCE and risk management

Corporate governance

As a transmission system operator, TenneT plays an important role in society. We believe in having a good governance structure, effective oversight and a transparent accountability to all stakeholders. To that end, we comply with the Dutch Corporate Governance Code (hereafter: the Code), insofar as the Code is applicable.

Corporate governance structure

TenneT's corporate governance structure comprises the Executive Board, the Supervisory Board and the General Meeting of Shareholders. Our internal auditor and external auditor also play an important role in this structure.

Executive Board

The Executive Board of TenneT Holding B.V. has three statutory and two non-statutory directors. The Executive Board members have joint authority to represent the company. Each board member also holds limited individual power of attorney. Two members of the Executive Board of TenneT Holding B.V. are managing directors of TenneT TSO B.V., two other members of the Executive Board are managing directors of TenneT TSO GmbH and one of these two other members is managing director of TenneT Offshore GmbH.

The Executive Board is responsible for TenneT's general policies and strategy, which includes regulated and unregulated activities.

Supervisory Board

The Supervisory Board of TenneT Holding B.V. oversees TenneT's general policies and strategy. It carries out its duties in the interests of the company and its stakeholders, and also takes into account relevant aspects of corporate social responsibility. TenneT has a two-tier board structure, as specified in the Electricity Act.

All information about the Supervisory Board (such as its rules and resignation schedule) is available on our corporate website.

General Meeting of Shareholders

All shares in TenneT's capital are held by the Dutch state, which is represented by the Ministry of Finance. Under the Electricity Act, only the Dutch state may hold voting interests in the company. A General Meeting of Shareholders is held within six months of the end of each financial year. The agenda for this meeting includes a discussion of the integrated annual report, the adoption of the financial statements, and a dividend proposal. The meeting also discharges the Executive Board and Supervisory Board members from liability from their respective activities in the past year. Other shareholder meetings are held as and when deemed necessary by the Executive Board, Supervisory Board or shareholder.

External auditor

The General Meeting of Shareholders has the power to appoint external auditors to audit the financial statements prepared by the Executive Board. These auditors report to the Supervisory Board and the Executive Board, and their findings are presented in an independent auditor's report, an assurance report, a management letter and an audit results report.



The performance of the external auditors is evaluated by the Executive Board and the Audit, Risk and Compliance Committee and, if necessary, also by the Supervisory Board.

The external auditors attend meetings of the Audit, Risk and Compliance Committee. They also attend Supervisory Board meetings when the independent auditor's report on the financial statements is discussed and the financial statements approved.

Internal auditor

The internal auditor attends all meetings of the Audit, Risk and Compliance Committee.

Compliance & integrity officers

TenneT has two compliance & integrity officers. A summary of the compliance and integrity cases is shared and discussed with the Audit, Risk and Compliance Committee.

Related parties

Related party transactions are disclosed in note 7.3 to the consolidated financial statements.

Diversity

Diversity is disclosed in the supervisory board report.

Deviations from the Dutch Corporate Governance Code

A revised version of the Code was introduced during the reporting period and implemented by TenneT.

Certain principles and best-practice provisions in the Code do not apply to TenneT. The reasons why and to what extent TenneT decided not to or could not adopt these particular principles and best-practice provisions are explained below:

2.1.3, 3.1.3: Not applicable: no Executive Committee has been established at TenneT.

2.3.8: Not applicable: no delegated Supervisory Board member is employed by TenneT.

2.3.2: If the Supervisory Board has more than four members, the Code stipulates that the board shall appoint from among its members an Audit Committee, a Remuneration Committee, and a Selection and Appointments Committee. The TenneT Supervisory Board has combined the tasks of the latter two committees into a Remuneration and Appointments Committee.

2.7.5 – 2.8.3, 3.3.2, 3.3.3: Not applicable: these provisions do not apply to TenneT because it only has one shareholder, namely the Dutch state.

Chapter 4: Most paragraphs are not applicable to TenneT because it only has one shareholder, namely the Dutch state. Regarding all other paragraphs, TenneT complies with the Code.

Chapter 5: Not applicable, given TenneT's two-tier structure, this chapter is not applicable.



Remuneration policy

The remuneration policy has been determined by the shareholder and is effective as of 2011. The review of the remuneration policy by the shareholder and Supervisory Board in 2017 did not lead to a revised policy. The most important elements of the current remuneration policy are described below.

Employment market reference group

Remuneration for the directors of TenneT has been set using a benchmark, a comparison with organisations competing in the same business and employment markets as TenneT. These organisations include:

- international transmission system operators (TSOs);
- infrastructure operators;
- installation specialists/engineering firms;
- construction companies;
- financial institutions.

The companies in the benchmark group are divided into three sub-groups, (semi) public (50%), private (25%) and international TSOs (25%). The remuneration norm for TenneT directors has been determined on the basis of the level of the (weighted) median of the subgroups and the specific responsibilities of the position concerned.

As part of its analysis, the shareholder tests the remuneration norm for TenneT directors against a group of reference companies relevant to TenneT, comprising 75% (semi) public and 25% private companies.

Remuneration norm

The benchmarking method as applied by TenneT results in a 'norm' level of remuneration for TenneT directors that exceeds the maximum desired by the shareholder of EUR 367,000 (as of 1 January 2017).

On the appointment of a new statutory director, the Supervisory Board shall, at the request of the shareholder, limit the sum of fixed and variable remuneration to a maximum of EUR 367,000 (as of 1 January 2017). To achieve a balanced remuneration within both the Executive Board and the next level of senior management, the maximum fixed and variable remuneration of the vice-chair shall be between the remuneration of the CEO and the remuneration of the CFO and COO.

If, in the opinion of the Supervisory Board, the maximum remuneration as required by shareholder leads to unacceptable risks to the organisation because the available candidates do not have the right profile or necessary experience, the Supervisory Board shall consult the shareholder.

The Supervisory Board decides on the annual increase in the base salary. If the total remuneration of a statutory director has reached its maximum, further increases will be limited to the structural increments as agreed upon in the 'NWB' collective labour agreement for grid companies which is applicable to all Dutch TenneT employees.

Variable remuneration

To further encourage the achievement of the company's objectives, part of the directors' remuneration is linked to certain challenging targets. These are set in advance by the Supervisory Board and include those of a public or societal nature. The annual variable remuneration of the company's statutory directors is limited to 20% of their fixed annual salary. The maximum variable remuneration for the rest of the company is line with the remuneration of the statutory directors.

Performance targets fall into four categories: security of supply and safety, strategy, operations and finance. The comparative weighting of these performance categories varies from one year to the next, and differs according to the individual director's portfolio. Each category includes certain public or societal objectives, the attainment of which will account for no less than 20% of the total. If, within a reasonable period after determining the variable remuneration, it is established that the award needs to be adjusted as a result of factors unknown when the award was made, the Supervisory Board shall decide whether and the extent to which the award of the variable remuneration needs to be revised.

Service agreement and compensation for early termination

Directors are appointed as statutory directors for a period of four years. The total set of agreed employment terms and conditions is recorded in a service agreement for an undefined period. If the contract is terminated by the company within that period, compensation ('severance pay') will generally be limited to the equivalent of one year's fixed salary. If such compensation is considered unreasonable in the first term of appointment, up to two years' fixed salary may be paid at the discretion of the Supervisory Board, following consultation with the shareholder.

Other allowances and secondary benefits

The total remuneration package for directors includes an appropriate and fiscally accepted allowance for necessary expenses, the use of a lease car (of a type comparable to those provided to directors of similar organisations) including possible private use, accident and directors' and officers' liability insurance, and thirty days' paid leave per annum.

Secondary benefits also include a nominal contribution towards health insurance premiums and the choice of other flexible individualised benefits as well as a percentage of the fixed salary in the form of an employer's contribution to a life-course savings scheme. The percentage is established by the 'NWb' collective labour agreement. The above benefits are applicable to all TenneT employees in the Netherlands. The company does not extend loans, loan guarantees or advances against future earnings to any director.

Pensions

The directors participate in a pension regulation according to pension as defined in the 'NWb' collective labour agreement and as applicable for all employees in the Netherlands. The employers and employee contribution for the directors is the same as for all other employees. The applicable pension regulations define the pensionable salary up to EUR 103,317.

TenneT directors receive the same compensation as TenneT employees with an income above EUR 103,317. The compensation is based on the fiscally allowed pension premium percentage for income above EUR 103,317 and specified per age category.

Employment contracts of directors appointed before 2011

The current remuneration policy as described above does not affect the agreed employment terms and conditions of directors appointed before 2011.

The appointment of the CEO dating from 2002 is for an undefined period of time, while compensation for termination of the contract by the company (severance pay) is based on the then standard neutral formula used by the Dutch court with a maximum of two yearly base salaries.

Others

The remuneration norm for the former vice chair of the Executive Board was exceeded with the permission of the shareholder. The resulting remuneration was lower than the German remuneration market or that of directors at comparable TSOs.

Risk management and internal control

Risk management and internal control objectives

Risk management and internal control are at the heart of every effective management control system, including TenneT's. With our system, we aim to identify and manage any risks threatening realisation of TenneT's strategic and operational objectives, as well as enhance the control we have over our day-to-day processes.

The key objectives of our risk management and internal control system are to establish:

- The proper management of risks that could affect TenneT's objectives from a strategic, operational, process- and project-related point of view.
- Compliance with the requirements of any applicable laws and regulations, e.g. the Dutch Corporate Governance Code, the German Control and Transparency in Business Act and the German Accounting Law Reform Act.
- The reliability of external and internal financial and non-financial information.

Our risk management and internal control cycle is performed and reported in our State of Risk report twice a year, giving us a clear picture of TenneT's overall risk position. This provides management with the necessary means to realise an effective risk management strategy.

Moreover, via the Letter of Representation, management takes accountability for designing, implementing, monitoring and maintaining a framework of measures and controls to mitigate key risks.

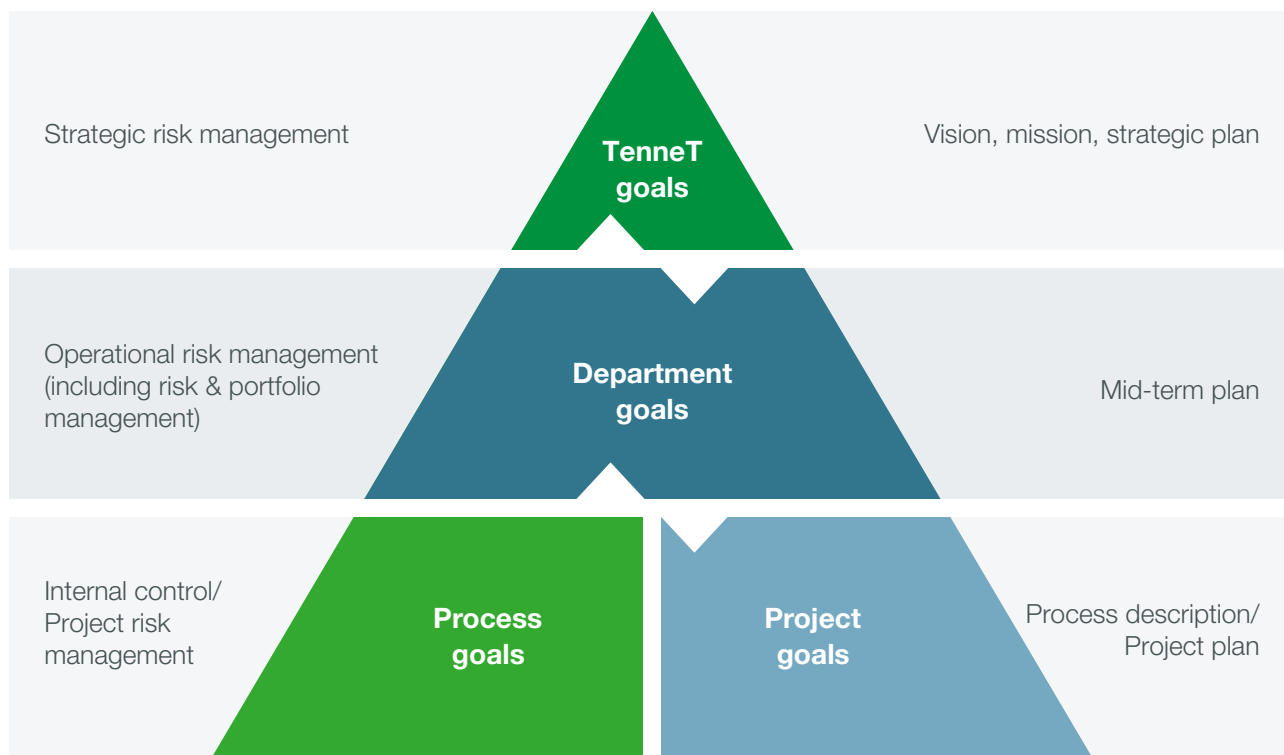
Risk management and internal control framework

Our risk management and internal control framework is based on the international COSO II model (Committee of Sponsoring Organisations of the Treadway Commission) and designed along the following pillars:

- Strategic risk management
- Operational risk management, including risk and portfolio management with respect to asset management
- Project risk management
- Internal control

Risk management and internal control

Different levels of goals and ownership face different types of risks which are interrelated



Strategic risk management

Strategic risks are those that jeopardise the realisation of TenneT's strategic objectives and goals. Strategic risks are managed by the Executive Board. A strategic risk assessment is performed at the end of every year and updated mid-year. The Executive Board evaluates the risks as they develop as well as the effectiveness of applicable mitigating actions. TenneT's strategic risk position is shared and discussed with the Supervisory Board and the Audit, Risk and Compliance Committee.

Operational risk management

The operational risks affecting the various performance units and corporate departments are documented and evaluated to assess the adequacy of mitigating actions at least twice a year. Our Risk Management & Internal Control department challenges management to review risks and related mitigating actions. TenneT's updated operational risk position is part of the Letter of Representation.

Risk & portfolio management

Risk & portfolio management is part of TenneT's asset management process and helps us make risk-based assessments when taking investment decisions. Grid constraints are identified by analysing grid components and failures and by monitoring the necessary transport capacity. These constraints are assessed according to the risk they pose to TenneT's objectives. Should the risk exceed a predefined level, a measure to mitigate this risk is proposed and included in our investment portfolio.

In the Netherlands, the results of these analyses are summarised in our bi-annual Quality and Capacity document, which is reviewed by the Dutch regulator. In Germany, TenneT Germany and the other German TSOs draw up joint bi-annual onshore and offshore grid development plans that require approval from the German regulator.

Project risk management

TenneT's project risk management system is designed to help the realisation of large-scale infrastructure projects on time and within budget, while adhering to quality requirements. The purpose of day-to-day project risk management is to review and manage risks systematically, taking into account specific project categories.

Projects are classified and assigned according to three categories of project risk management: simple, medium and complete. For each category a description of the scope of project risk management is defined.

Internal control

Our internal control framework is designed to support and safeguard the realisation of our process objectives, as well as fulfil our legal obligations and establish the reliability of our internal and external reporting. To assess the effectiveness of this framework and identify opportunities for improvement, a control self-assessment is performed by control owners and validated by management twice a year. Risk Management & Internal Control performs quality assessments on the outcomes. Internal Audit checks randomly selected self-assessments during the year to form an independent opinion. The outcomes of these control self-assessments are direct input for the Letter of Representation procedure. Identified issues are reported to Risk Management & Internal Control, which monitors and follows up on mitigating steps with the relevant business owners. Overall control effectiveness is reported in our State of Risk report.



Roles and responsibilities

Our risk management and internal control system is at the heart of our 'three lines of defence' model, which details the relationship between, and the responsibilities of the business, Risk Management & Internal Control and Internal Audit.

Three lines of defence

1st line	2nd line	3rd line
Management	Risk Management & Internal Control	Internal Audit
Manage risks on a daily basis and safeguard the implementation and effectiveness of controls	Steer, monitor, challenge and support line management at managing risks and controls	Provide (additional) assurance regarding governance, risk management and internal control

First line of defence: Business

TenneT's management bears primary responsibility for identifying, controlling and monitoring risks associated with processes and for maintaining an appropriate internal control framework. The objective of this framework is to safeguard the realisation of our process objectives and establish the reliability of our internal and external reporting.

Second line of defence: Risk management & internal control

Risk Management & Internal Control is responsible for coordinating, developing and monitoring TenneT's risk management and internal control system, and supports and challenges the business on risk management and internal control matters. Risk Management & Internal Control is also responsible for independent risk reports to the Executive Board, the Supervisory Board and the Audit, Risk and Compliance Committee.

Third line of defence: Internal audit

Internal audits are fundamental to TenneT's risk management and internal control system. These audits provide management with (additional) assurance on the effectiveness regarding governance, risk management and internal control.

The Internal Audit department schedules its audits according to an annual risk-based audit plan that reflects the latest operational and strategic risk assessments, as well as additional insights into external developments and earlier audits, and opinion from business experts.

Internal Audit reports its findings and the status of follow-up actions to the Executive Board and the Audit, Risk and Compliance Committee on a quarterly basis.

Compliance and integrity

TenneT provides all parties with guaranteed, non-discriminatory access to our transmission grid. As such, we aim to operate in a consistent, compliant and reliable way, independent of suppliers and electricity producers. Our code of conduct defines our way of working and is published on our company [website](#).

Preventing potential fraud, anti-bribery & corruption is part of our compliance & integrity programme. Detecting potential breaches is part of all our internal audits. Guidance in the form of corporate policies (a.o. the Supplier Code of Conduct, the Corporate Policy on Gifts & Hospitality), effective communication and training sessions on compliance & integrity awareness helps to protect TenneT and our employees and the society against economic and reputational harm.

As part of our compliance management system, we have set up a committee that deals with compliance and integrity issues, comprising members from relevant functions (Risk Management & Internal Control, Internal Audit, Corporate Safety & Security, trusted counsellors and compliance & integrity officers). The objective of our Compliance & Integrity Committee is to share company information on compliance and integrity risks detected by the above-mentioned officers and/or departments, raise awareness about these risks and minimise them by taking action on the detected risks.

TenneT also has an external committee that deals with sexual harassment, a whistleblowing policy and a procedure for internal and external compliance and integrity issues. In the Netherlands, employees can report any concerns confidentially to either a trusted counsellor or a compliance & integrity officer, and if the concerns relate to sexual harassment or violence, they can report them to the committee dealing with sexual harassment. In Germany, employees can report these concerns to their compliance & integrity officer. In 2017, 28 cases were reported, none were filed as a formal complaint under the whistle blower rules.

No fraud, bribery nor corruption breaches with material impact were identified by TenneT in 2017. Material impact is defined in our risk matrix by a severe breach that has a significant adverse effect on TenneT's reputation and/or financial position.

With respect to compliance, in the Netherlands the Authority for Consumers and Markets ("ACM"), took the decision that TenneT does not comply to article 31, subsection 12 of the Dutch Electricity Act ("Act"), which states that all TenneT's assets shall be constructed redundantly (double) to prevent outages in the grid. Second, in December 2017 we have reported an environmental incident related to SF₆ leakage, which has been repaired, and are awaiting the response of the relevant authorities.



Developments

We made several improvements to our risk management and internal control system in 2017:

- The TenneT risk matrix, used for prioritising risks in a uniform way, has been further aligned with TenneT's strategy. A new structure was created to meet the specific needs of the different risk domains (asset management, projects and corporate).
- TenneT appointed two compliance & integrity officers and implemented a corporate policy on gifts and hospitality and an improved corporate whistleblowing policy. We underline cultural awareness in this matter through employee training sessions and organised the Week of Integrity 2017.
- To enrich our strategic risk position and create the opportunity for new insights, the annual strategic risk assessment 2017 focused more on looking outside in by means of a scenario approach.
- Local laws and regulatory requirements (e.g. the German Business Control and Transparency Act and the German Accounting Law Reform Act) have been fully integrated into one operational risk process instead of separate work streams being maintained.
- Bolstered by our harmonised working methods and established quality standards for internal control, we made further progress with developing internal control for our business and non-financial reporting processes in both the Netherlands and Germany.
- For project risk management, we increased comparability and overall data quality within and between individual projects.



Risk appetite

Risk appetite can be defined as the extent to which deviations are deemed acceptable in achieving goals.

TenneT's risk appetite has been set by the Executive Board for each of our strategic goals.

In terms of the level of risk that we are willing to accept in relation to our strategic goals, we differentiate between the following categories: risk averse (low risk appetite), risk neutral (medium risk appetite) and risk-taking (high risk appetite).

Risk appetite score

Strategic goal	Goal description	Low	Moderate	High
Deliver stakeholder value	Maximise contribution to the societal energy goals through effective execution of strategic goals while addressing stakeholder needs and promoting innovation		○	
Engage stakeholders	Engage with company stakeholders: employees, shareholders, regulators, policymakers, customers, suppliers and local communities		○	
Secure supply	Secure reliable supply of electricity and facilitate the integration of sustainable energy	○		
Lead NWE integration	Lead the development of an integrated and sustainable north-west European electricity market		○	
Innovate business	Innovate and adapt the business to anticipate the energy transition		○	

Key risks

We categorise our risks according to the four types of risk defined by the COSO II model: strategic, operational, reporting and compliance. TenneT's financial risks are presented separately in notes 6.7 of the financial statements.

Strategic risks

Based on the strategic risk assessment conducted in October 2017, the table below presents the strategic risks that rated high.

Strategic goal	Strategic risk	Risk-mitigating actions
Secure supply	<ul style="list-style-type: none"> Blackout caused by TenneT 	<ul style="list-style-type: none"> Operate the system compliant with EU codes and ENTSO-E rules. Ensure sufficient amount of control and grid reserve power. Ensure and monitor grid investments and maintenance. Perform and report on root cause analyses of incidents. Safeguard adequate insurance coverage.
	<ul style="list-style-type: none"> Significant delay of certain large infrastructure projects 	<ul style="list-style-type: none"> Continuously improve internal processes. Implement TenneT planning tools. Improve supplier management and communicate future needs. Ensure active stakeholder management to speed up permits and licenses.
	<ul style="list-style-type: none"> Major disruptions in the business due to terror attack (physical or cyber) 	<ul style="list-style-type: none"> Implement physical and security measures. Implement business continuity plans. Maintain and update asset protection guideline. Carry out security contingency plans with national authorities. Certification for ISO 27001 (Information Security Management).
Innovative business	<ul style="list-style-type: none"> Failure or malfunctioning of new (high-voltage) technology 	<ul style="list-style-type: none"> Pre-qualify suppliers through standard technical designs, contracts and as-built documentation. Participate in system studies & international working groups. Ensure availability of spare parts and cable repair service level agreements. Conduct simulations and root cause analyses in case of failures.
Deliver stakeholder value	<ul style="list-style-type: none"> Lack of sustainable access to equity 	<ul style="list-style-type: none"> Negotiate/discuss sustainable financing solutions with shareholder. Develop alternative sustainable financing solutions. Issue hybrid securities.
	<ul style="list-style-type: none"> Adverse changes in NL/DE regulation or changes in regulatory parameters 	<ul style="list-style-type: none"> Lobby with regulators and lawmakers to prevent negative changes in regulatory framework. Invest in relationship with ACER. Pursue legal remedies if and when appropriate.



Developments in strategic risk position

Our strategic risks are mostly similar to the ones reported in 2016. In terms of high risks in 2017, we can report the following:

Blackout caused by TenneT

Grid performance decreased slightly compared to 2016. The further integration of renewables, combined with international market developments, increased the challenges we face in balancing our grid.

Significant delay of certain large infrastructure projects

Although permit-related challenges improved slightly, these are still having a major impact on the timely realisation of our onshore and offshore infrastructure projects.

Major disruption to the business due to a terrorist attack (physical or cyber)

Threats related to cyber security are on the rise everywhere, also in the TSO playing field. Increased media attention of this type of threat may prompt fraudulent parties to target our company.

Failure or malfunctioning of new (high-voltage) technology

There was a higher number of component failures related to new high-voltage technology in our onshore and offshore projects. This may impact our investment portfolio.

Lack of sustainable access to equity

The structural increase in renewable energy sources will lead to an increase in our investment portfolio. Securing sustainable access to equity to fund this increase remains a challenge.

Adverse changes in NL/GE regulation or changes in regulatory parameters

A substantial part of TenneT's revenues is derived from regulated activities. Changes to regulatory frameworks in the Netherlands and Germany directly affect our activities and financial performance. As such, it is crucial that our activities are supported by adequate, sustainable tariffs and by a solid regulatory framework. Our Corporate Regulatory department monitors regulatory risks and manages mitigating actions.

The table below summarises the regulatory risks.

Regulatory risk	Risk-mitigating actions
Europe	
<ul style="list-style-type: none"> At the German-Danish border (D-DK1) the European Commission is making the case that TenneT is favoring producers in Germany over Danish producers by not offering sufficient cross-border transmission capacity. TenneT and the European Commission have entered into talks about how to settle the case without imposing a fine on TenneT. 	<ul style="list-style-type: none"> TenneT is in continuous contact with DG Competition, BMWi, and BNetzA on a possible solution. Currently, it is foreseen that TenneT in its effort to offer as much capacity as possible will offer a minimum transfer capacity at that specific borders. This approach is supported by German and European authorities.
The Netherlands	
<ul style="list-style-type: none"> TenneT is not able to achieve a reasonable return on its invested capital as the return allowed by the regulator is set at a too low level because of low interest rates. 	<ul style="list-style-type: none"> In general, ACM continued to use the existing approach for the regulatory period of 2017-2021. ACM has, however, differentiated the rate of return for existing and new capital. TenneT has started legal proceedings because it disagrees with certain items of this decision.
<ul style="list-style-type: none"> Inability to meet the regulatory budget on operational expenditures for procuring energy and ancillary services, such as grid losses and redispatch costs. 	<ul style="list-style-type: none"> ACM has amended this part of the regulation, exposing TenneT to the full price and volume risk of this cost element. TenneT started legal proceedings in respect of this decision because it believes that these costs cannot be influenced by TenneT. Moreover, TenneT received confirmation from ACM that it can recover redispatch costs relating to cross border trades from the cross border auction proceeds.
<ul style="list-style-type: none"> ACM has, together with the Council of European Energy Regulators, initiated a new international TSO benchmark exercise to measure the efficiency on capital and operational expenditures of European TSOs. The benchmark exercise is planned for 2018/2019. 	<ul style="list-style-type: none"> TenneT will proactively participate in the benchmark. TenneT will advocate to ACM to prudently apply the benchmark results within the regulatory framework.



Germany

<ul style="list-style-type: none"> TenneT is unable to achieve a reasonable rate of return on equity within the regulatory period of 2019-2023. 	<ul style="list-style-type: none"> Although TenneT had intensive dialogues with BNetzA and BMWI to reach a sufficient rate of return on equity, BNetzA determined a value which is below our expectations of a reasonable rate of return. TenneT started court proceedings against the BNetzA determination to reach a higher value.
<ul style="list-style-type: none"> For the regulatory period of 2019-2023 BNetzA introduced a new method to evaluate the efficiency of the German TSOs. BNetzA will now implement a so-called reference grid analysis. As this is a new methodological approach the result and the financial consequences for TenneT are unclear. 	<ul style="list-style-type: none"> In the last years TenneT intensively worked on efficiency improvements for project realization but also for internal processes and cost savings (LEAN initiative). Furthermore, TenneT accompanies BNetzA's development of the new method closely.
<ul style="list-style-type: none"> With the introduction of a law in 2017, the grid fees of the German TSOs will be unified beginning in 2019. As part of this process, the offshore costs will not be reimbursed from the grid fees any more, but from a levy. In this context, BNetzA has also proposed a new approach for determining the costs that enter the levy. This new system is not defined in detail by BNetzA but is not in line with the demand of investors to have a stable regulatory framework. 	<ul style="list-style-type: none"> Towards the ministry and the regulator TenneT is actively lobbying for maintaining the current regulatory regime for offshore as this could lead to severe damages for the reputation of the German regulatory system. If necessary, TenneT will also initiate the appropriate legal proceedings in order to minimize financial effects of the changes.

Operational risks

The table below details TenneT Holding's most important operational risks.

Operational risk	Risk mitigating actions
Not realising planned portfolio	
<ul style="list-style-type: none"> Gap between planned and realised maintenance and preservation. Risk of deterioration of the condition of the grid in the long term. 	<ul style="list-style-type: none"> Risk-based maintenance and preservation planning in alignment with the commissioning dates for large projects. Substation driven replacement strategy.
<ul style="list-style-type: none"> Insufficient availability of capable resources. 	<ul style="list-style-type: none"> Strategic personnel planning. Tactical procurement planning.
SHE incidents and accidents	
<ul style="list-style-type: none"> Work-related incidents and accidents that may harm the health and well-being of our own employees and the employees of contractors, that work for TenneT. 	<ul style="list-style-type: none"> Implementation Life Saving Rules and improved approach on incident investigation. Introduction of and certification on the Safety Culture Ladder. Integrate SHE requirements in contract management.
Electricity market risks	
<ul style="list-style-type: none"> Risk of not realizing efficiency targets set by regulator. 	<ul style="list-style-type: none"> Development of a procurement strategy reflecting the regulatory framework.
<ul style="list-style-type: none"> Unavailability of ancillary services due to mothballing of conventional power. 	<ul style="list-style-type: none"> Development of standards for the market integration of renewable energies and (pools of) small generation plants. Development of crowd balancing opportunities. Application at the regulator to veto the decommissioning of system-relevant power plants in Germany.



Reporting risks

The table below presents TenneT Holding's most important reporting risks.

Reporting risk	Risk-mitigating actions
<ul style="list-style-type: none"> Financial statements do not give a true and fair view of the company's financial position, financial performance and cash flows. Financial statements are not compliant with applicable laws and regulations. 	<ul style="list-style-type: none"> Internal control framework, including control self-assessments and Letter of Representation procedure.
<ul style="list-style-type: none"> Incorrect (regulatory) reports or information to BNetzA, ACM and/or tax authorities. 	<ul style="list-style-type: none"> Internal and external audit reviews and follow-up on findings. Use of internal accounting manuals. Intensive monitoring of internal activities by the Regulatory department. Position papers. Data analytics.

Compliance risks

The table below presents compliance risks and mitigating actions, grouped according to three areas.

Compliance risk	Risk-mitigating actions
General/legal compliance	
<ul style="list-style-type: none"> Non-compliance with European or national laws and regulations, e.g. regarding health, safety and environment, labour, tendering and energy markets. 	<ul style="list-style-type: none"> Actively involve experts from Legal Affairs, Procurement, Human Resources, Safety & Security, Regulation, etc. Monitoring by Compliance via the LOR procedure. Train employees.
<ul style="list-style-type: none"> Risk of fraud and/or conflict of interest. 	<ul style="list-style-type: none"> Corporate Gifts & Hospitality policy. Increase cultural awareness via internal communication messages and face-to-face training sessions.
<ul style="list-style-type: none"> Non-Compliance with Code of Conduct. 	<ul style="list-style-type: none"> Content of the Code of Conduct is confirmed by all (new) employees via written consent. Compliance Experts explain the principles in the Code of Conduct via training sessions.
<ul style="list-style-type: none"> Non-compliance with bilateral agreements between TenneT and other TSOs, suppliers, customers, etc. 	<ul style="list-style-type: none"> Ensure adequate registration of decisions and contracts by Legal Affairs and other departments involved.
<ul style="list-style-type: none"> Non-compliance with permits and licenses. 	<ul style="list-style-type: none"> Provide training and awareness programmes.
Financial compliance	
<ul style="list-style-type: none"> Non-compliance with financial and tax laws and legislation, e.g. IFRS, local GAAP, the Dutch Corporate Governance Code, the German Control and Transparency in Business Act, the German Accounting Law Reform Act, etc. 	<ul style="list-style-type: none"> Actively involve experts from Finance & Control, Treasury, Tax and Legal departments. Monitoring by Compliance via the internal LOR procedure. Ensure availability of accounting manuals, treasury statute, etc. Use internal and external experts as advisors, if and when necessary.
<ul style="list-style-type: none"> Non-compliance with financing agreements. 	<ul style="list-style-type: none"> Frequent knowledge update by means of training, external audit/expert reviews, etc.
Technical compliance	
<ul style="list-style-type: none"> Non-compliance with electricity laws and technical codes, ENTSO-E operational handbook, electrical safety regulations and standards, etc. 	<ul style="list-style-type: none"> Actively involve experts from Asset Management, System Operations. Assessments by the technical compliance officer. Cooperate with regulatory authorities through the Corporate Asset Owner department. Involve authorised electrical safety experts and technical strategists. Technical audits.

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Consolidated financial statements

Consolidated statement of income

For the year ended 31 December (EUR million)

	Notes	2017	2016
Revenue	3.1	3,976	2,843
Grid expenses	3.2.1	-2,111	-1,470
Personnel expenses	3.2.2	-191	-183
Depreciation and amortisation of assets	4.1, 5.1	-629	-596
Other operating expenses	3.2.3	-205	-223
Other (gains)/losses		-9	-10
Total operating expenses		-3,145	-2,482
Share in profit of joint ventures and associates	5.3	69	78
Operating profit		900	439
Finance income		9	7
Finance expenses	3.3	-179	-166
Finance result		-170	-159
Profit before income tax		730	280
Income tax expense	3.4	-177	-38
Profit for the year		553	242
Profit attributable to:			
Equity holders of ordinary shares	6.2.1	442	134
Hybrid securities	6.2.1	35	33
Owners of the company		477	167
Non-controlling interests	6.2.2	76	75
Profit for the year		553	242

Earnings per share attributable to the equity holders of ordinary shares

For the year ended 31 December (EUR per share)

	Notes	2017	2016
Basic and diluted earnings per share	3.5	2,255	710



Consolidated statement of comprehensive income

For the year ended 31 December (EUR million)

		Attributable to equity holders of the company						Non-controlling interest	Total equity
		Hedging reserve	Retained earnings	Unappropriated result	Equity attributable to ordinary shares	Hybrid securities	Equity attributable to owners of the company		
	Notes	6.2.1	6.2.1	6.2.1		6.2.1		6.2.2	
2016									
<i>Other comprehensive income to be reclassified to profit or loss in subsequent years:</i>									
Amortisation of hedges	6.2.1	-	-	-	-	-	-	-	-
Taxation	3.4	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
<i>Items not to be reclassified to profit or loss in subsequent years:</i>									
Re-measurement of defined benefit pensions	7.1.1	-	-40	-	-40	-	-40	-	-40
Taxation	3.4	-	12	-	12	-	12	-	12
		-	-28	-	-28	-	-28	-	-28
Total other comprehensive income 2016		-	-28	-	-28	-	-28	-	-28
Profit for the year		-	-	134	134	33	167	75	242
Total comprehensive income 2016		-	-28	134	106	33	139	75	214
2017									
<i>Other comprehensive income to be reclassified to profit or loss in subsequent years:</i>									
Amortisation of hedges	6.2.1	-1	-	-	-1	-	-1	-	-1
Taxation	3.4	-	-	-	-	-	-	-	-
		-1	-	-	-1	-	-1	-	-1
<i>Items not to be reclassified to profit or loss in subsequent years:</i>									
Re-measurement of defined benefit pensions	7.1.1	-	3	-	3	-	3	-	3
Taxation	3.4	-	-1	-	-1	-	-1	-	-1
		-	2	-	2	-	2	-	2
Total other comprehensive income 2017		-1	2	-	1	-	1	-	1
Profit for the year		-	-	442	442	35	477	76	553
Total comprehensive income 2017		-1	2	442	443	35	478	76	554



Consolidated statement of financial position

For the year ended 31 December (EUR million)

Assets	Notes	2017	2016
Non-current assets			
Tangible fixed assets	4.1	14,530	13,321
Intangible assets	5.1	98	109
Investments in joint ventures	5.3.1	413	328
Investments in associates	5.3.2	37	34
Deferred tax assets	3.4	5	3
Other financial assets	5.4	311	655
Total non-current assets		15,394	14,450
Current assets			
Inventories	5.8	78	74
Account- and other receivables	5.5	2,434	1,875
Income tax receivable	3.4	2	42
Cash and cash equivalents	6.4	1,329	1,208
Total current assets		3,843	3,199
Total assets		19,237	17,649



Consolidated statement of financial position

For the year ended 31 December (EUR million)

Equity and liabilities	Notes	2017	2016
Equity			
Equity attributable to ordinary shares	6.2.1	3,713	3,410
Hybrid securities	6.2.1	1,018	520
Equity attributable to owners of the company		4,731	3,930
Non-controlling interests	6.2.2	857	971
Total equity		5,588	4,901
Non-current liabilities			
Borrowings	6.3	6,786	6,335
Deferred income	4.2	283	279
Deferred tax liability	3.4	222	252
Provisions	5.7	697	642
Net employee defined benefit liabilities	7.1.1	186	179
Other liabilities		2	-
Total non-current liabilities		8,176	7,687
Current liabilities			
Borrowings	6.3	917	1,127
Deferred income	4.2	3	5
Income tax payable	3.4	7	14
Provisions	5.7	92	141
Other financial liabilities		61	66
Account- and other payables	5.6	4,354	3,666
Bank overdrafts	6.4	39	42
Total current liabilities		5,473	5,061
Total equity and liabilities		19,237	17,649



Consolidated statement of changes in equity

For the year ended 31 December (EUR million)

	Notes	Attributable to equity holders of the company								Non-controlling interest	Total equity
		Paid-up and called-up capital	Share premium reserve	Hedging reserve	Retained earnings	Unappropriated result	Equity attributable to ordinary shares	Hybrid securities	Equity attributable to owners of the company		
		6.2.1	6.2.1	6.2.1	6.2.1	6.2.1		6.2.1		6.2.2	
At 1 January 2016		100	600	5	2,012	-5	2,712	520	3,232	956	4,188
Net income		-	-	-	-	134	134	33	167	75	242
Total other comprehensive income		-	-	-	-28	-	-28	-	-28	-	-28
Total comprehensive income		-	-	-	-28	134	106	33	139	75	214
Dividends paid	6.2.1	-	-	-	-196	-	-196	-	-196	-37	-233
Distribution on hybrid securities	6.2.1	-	-	-	-	-	-	-33	-33	-	-33
Tax on distribution on hybrid securities	6.2.1	-	-	-	-	8	8	-	8	-	8
Capital contribution	6.2.1 6.2.2	-	780	-	-	-	780	-	780	6	786
Capital repayment	6.2.2	-	-	-	-	-	-	-	-	-29	-29
Appropriation remaining prior year result		-	-	-	3	-3	-	-	-	-	-
At 31 December 2016		100	1,380	5	1,791	134	3,410	520	3,930	971	4,901
Net income		-	-	-	-	442	442	35	477	76	553
Total other comprehensive income		-	-	-1	2	-	1	-	1	-	1
Total comprehensive income		-	-	-1	2	442	443	35	478	76	554
Dividends paid	6.2.1	-	-	-	-	-146	-146	-	-146	-43	-189
Capital contribution	6.2.1	-	-	-	-	-	-	-	-	15	15
Capital repayment	6.2.1	-	-	-	-	-	-	-500	-500	-162	-662
Issue of hybrid securities	6.2.1	-	-	-	-3	-	-3	1,000	997	-	997
Distribution on hybrid securities	6.2.1	-	-	-	-	-	-	-37	-37	-	-37
Tax on distribution on hybrid securities	6.2.1	-	-	-	-	9	9	-	9	-	9
Appropriation remaining prior year result		-	-	-	-3	3	-	-	-	-	-
At 31 December 2017		100	1,380	4	1,787	442	3,713	1,018	4,731	857	5,588



Consolidated statement of cash flows

For the year ended 31 December (EUR million)

	Notes	2017	2016
Operational activities			
Operating profit		900	439
Non-cash adjustments to reconcile profit to net cash flows:			
Depreciation, amortisation and impairment of assets	4.1, 5.1	629	596
Result on disposal of assets	4.1	-7	-
Gain on acquisition of subsidiary	5.2	-3	-
Share in profit of joint ventures and associates	5.3	-72	-78
Dividends received from joint ventures and associates	5.3	54	88
Increase/(decrease) in deferred income	4.2	2	10
Movements in provisions and other (financial) liabilities and assets		-66	28
		537	644
Working capital adjustments excluding EEG working capital:			
(Increase)/decrease in account- and other receivables	5.5	-274	5
(Increase)/decrease in inventories		-4	-41
Increase/(decrease) in account- and other payables	5.6	379	-214
Increase/(decrease) in current financial liabilities		7	24
		108	-226
Income tax paid (net)		-181	-211
Net cash flows from operating activities excluding EEG working capital		1,364	646
EEG working capital adjustments:			
(Increase)/decrease in EEG receivables	5.5	-94	-86
Increase/(decrease) in EEG payables	5.6	325	-9
		231	-95
Net cash flows from operating activities		1,595	551
Investing activities			
Purchase of tangible and intangible fixed assets	4.1, 5.1	-1,762	-1,796
Proceeds from sale of tangible and intangible fixed assets	4.1, 5.1	-	3
Acquisition of a subsidiary, net of cash acquired	5.2	-5	-
Capital contribution to joint ventures and associates	5.3	-72	-37
Proceeds from repayment of financial assets		-	-
Interest received		2	-
Net cash flows used in investing activities		-1,837	-1,830
Financing activities			
Net financing			
Proceeds from borrowings	6.3	1,370	3,213
Repayment of borrowings	6.3	-1,127	-395
		243	2,818
Other financing activities			
Interest paid		-151	-119
Dividends paid to ordinary shareholders of the company	6.2.1	-146	-196
Proceeds from capital contributions	6.2.1	150	-
Repayment of hybrid securities	6.2.1	-500	-

Continuation >



< Continued

Proceeds from issue of hybrid securities	6.2.1	997		-	
Distribution on hybrid securities	6.2.1	-37		-33	
Dividends paid and capital repayments to non-controlling interests	6.2.2	-205		-66	
Proceeds from capital contributions by non-controlling interests	6.2.2	15		6	
			123		-408
Net cash flows from financing activities			366		2,410
Net change in cash and cash equivalents			124		1,131
Cash and cash equivalents at 31 December	6.4	1,290		1,166	
Cash and cash equivalents at 1 January	6.4	1,166		35	
			124		1,131



Notes to the consolidated financial statements

We are continuously developing our financial reporting to make it more relevant and understandable to our stakeholders. These financial statements focus therefore on the key (financial) topics for 2017. Like prior year the notes to the consolidated financial statements have been grouped into seven sections relating to key topics and figures from a business perspective. Accounting policies are indicated with ①, while key assumptions and estimates are identified by using 🌪 in front of the header.

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1. Basis for reporting

Accounting policies describe our approach to recognising and measuring transactions and balance sheet items in the year. Accounting policies including new EU endorsed accounting standards, amendments and interpretations, relating to the consolidated financial statements as a whole are described below. This section also provides general guidance regarding assumptions, estimates and judgement used in the preparation of the consolidated financial statements. A more detailed description of accounting policies and significant estimates related to specific reported amounts is presented in the respective notes. Accounting policies which are deemed non-material are not presented in these financial statements. We consider an item material if, in our view, it is likely to have an impact on the economic decisions of the users of these financial statements.

1.1 General

We (TenneT Holding B.V. and its subsidiaries) are a leading electricity TSO with activities in the Netherlands and in Germany. Our activities in the Netherlands are carried out by TenneT TSO B.V. and its subsidiaries. Our activities in Germany are performed by TenneT GmbH & Co. KG and its subsidiaries.

The Dutch State holds the entire issued share capital of TenneT Holding B.V. Also hybrid securities are issued, which are deeply subordinated securities and are considered part of equity attributable to equity holders of TenneT. Our head office and legal seat is located in Arnhem, the Netherlands.

These consolidated financial statements for the year ended 31 December 2017 were prepared and authorised by our Executive Board for issue in accordance with a resolution of the Supervisory Board on 20 February 2018.

1.2 Basis for preparation

These consolidated financial statements have been prepared in accordance with IFRS as adopted by the European Union, and Part 9, Book 2 of the Netherlands Civil Code. The financial statements for TenneT Holding B.V. have been prepared in accordance with the provisions of Part 9, Book 2, of the Netherlands Civil Code.

These consolidated financial statements have been prepared on a going concern basis. The going concern basis presumes that the Group has adequate resources to remain in operation, and that the Executive Board intend it to do so, for at least one year from the date the financial statements are signed.

These consolidated financial statements are prepared on a historical cost basis, except for derivative financial instruments which have been measured at fair value. They are presented in euros and all values are rounded to the nearest million (EUR 000,000), except when otherwise indicated.

Significant new and amended standards adopted by the Group

TenneT applied for the first time certain amendments to the standards, which are effective for annual periods beginning on or after 1 January 2017. TenneT has not earlier than required adopted any standards, interpretations or amendments that have been issued but are not yet effective. The nature and the impact of each amendment is described below:

- Amendments to IAS 7 Statement of Cash Flows: Disclosure Initiative. The amendments require entities to provide disclosure of 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). TenneT has provided the information for both the current and the comparative period in note [6.3](#) borrowings.

- Amendments to IAS 12 Income Taxes: Recognition of Deferred Tax Assets for Unrealised Losses. The amendments clarify that an entity needs to consider whether tax law restricts the sources of taxable profits against which it may make deductions on the reversal of deductible temporary difference related to unrealised losses. Furthermore, the amendments provide guidance on how an entity should determine future taxable profits and explain the circumstances in which taxable profit may include the recovery of some assets for more than their carrying amount. TenneT has applied the amendments retrospectively. However, their application has no effect on the Groups financial position and performance as we have no deductible temporary differences or assets that are in the scope of the amendments to IAS 12 Income Taxes: Recognition of Deferred Tax Assets for Unrealised Losses.
- Annual Improvements Cycle - 2014-2016, these amendments did not affect TenneT's financial statements.

IFRS standards issued but not yet effective and adopted by the Group

A limited number of new standards, amendments to standards and interpretations, and annual improvement cycles were issued but are not effective for the financial year beginning 1 January 2017.

Below we describe the potential impact of IFRS 9, IFRS 15 and IFRS 16, which could have a material impact on our financial statements. Therefore they are further described. Other changes to standards which we expect to have no material impact on our financial statements are not further described.

- IFRS 16 was issued in January 2016 and it replaces IAS 17 Leases, IFRIC 4 Determining whether an Arrangement contains a Lease, SIC-15 Operating Leases-Incentives and SIC-27 Evaluating the Substance of Transactions Involving the Legal Form of a Lease. IFRS 16 sets out the principles for the recognition, measurement, presentation and disclosure of leases and requires lessees to account for all leases under a single on-balance sheet model similar to the accounting for finance leases under IAS 17. The standard includes two recognition exemptions for lessees – leases of 'low-value' assets (e.g., personal computers) and short-term leases (i.e., leases with a lease term of 12 months or less). At the commencement date of a lease, a lessee will recognise a liability to make lease payments (i.e., the lease liability) and an asset representing the right to use the underlying asset during the lease term (i.e., the right-of-use asset). Lessees will be required to separately recognise the interest expense on the lease liability and the depreciation expense on the right-of-use asset. IFRS 16 is effective for annual periods beginning on or after 1 January 2019 as of which date TenneT will adopt the standard. A lessee can choose to apply the standard using either a full retrospective or a modified retrospective approach, TenneT has decided to use the modified retrospective approach to account for the lease contracts. The standard's transition provisions permit certain reliefs. In 2018, TenneT will continue to assess the potential effect of IFRS 16 on its consolidated financial statements. For further details on our off-balance lease commitments at year-end 2017, we refer to note 4.3.4.
- IFRS 15 'Revenue from contracts with customers' introduces a new five-step model to be applied to revenue from contracts with customers and provides a more structured approach to measuring and recognising revenue. The effective date of this new standard is 1 January 2018. Based on an assessment encompassing interviews within several internal departments and review of the existing contracts, the impact of this new standard is limited. We will adopt the new standard on the required effective date.
- In July 2014, the IASB issued the final version of IFRS 9 Financial Instruments that replaces IAS 39 Financial Instruments: Recognition and Measurement and all previous versions of IFRS 9. IFRS 9 brings together all three aspects of the accounting for financial instruments project: classification and measurement, impairment and hedge accounting. IFRS 9 is effective for annual periods beginning on or after 1 January 2018. IFRS 9 requires us to record expected credit losses on all our debt securities, loans and trade receivables, either on a 12-month or lifetime basis. TenneT will apply the simplified approach and record lifetime expected losses on all trade receivables. TenneT has determined that, due to the unsecured nature of its loans and receivables, the loss allowance will increase by EUR 1 million.

In summary, the impact of IFRS 9 adoption is as follows:
Impact on equity (decrease) as of 1 January 2018:

(EUR million)	notes	1 January 2018
Assets		
Trade and other receivables	5.5	288
Total assets		288
Net impact on equity, including tax		1
Retained earnings	6.2.1	1

1.3 Basis for consolidation

The consolidated financial statements incorporate the financial statements of TenneT Holding B.V. and its subsidiaries as at 31 December 2017. A list of the legal entities included in the consolidation is included in note 7.4.

Subsidiaries are consolidated from the date of acquisition, constituting the date on which control is obtained, and continue to be consolidated until the date when such control ceases. The financial statements of subsidiaries are prepared for the same reporting period as the parent company, using consistent accounting policies. All intercompany balances, transactions, unrealised gains and losses resulting from intercompany transactions and dividends are eliminated in full on consolidation.

A change in the ownership interest of a subsidiary, without a loss of control, is accounted for as an equity transaction. If we cease to have control of a subsidiary, we derecognise the subsidiary's assets (including goodwill) and liabilities, with any non-controlling interest and the cumulative translation differences recorded in equity. Furthermore, the fair value of the consideration received, the fair value of any investment retained and any surplus or deficit in profit or loss are recognised. Acquisitions are accounted for using the acquisition method, where the purchase price is allocated to the identifiable assets acquired and liabilities assumed on a fair value basis and the remainder recognised as goodwill.

1.4 Significant accounting judgements, estimates and assumptions

The preparation of financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosures of contingent assets and liabilities and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from these estimates.

Such estimates are assessed continuously on the basis of previous results and experience, consultations with experts, trends, prognoses and other methods which we deem appropriate in each individual case. Significant items containing estimates and assumptions are as follows:

Item	Note	Estimate/assumptions
Tangible fixed assets	4.1	Estimate of remaining useful life
Intangible fixed assets	5.1	Estimate of recoverable amount and remaining useful life
Impairment review of goodwill	5.1	Estimate of cash flow projections and pre-tax discount rate
Grid expense payable	5.6.3	Estimate of electricity usage and energy prices
Provision for environmental management and decommissioning	5.7.5	Estimate of removal costs, removal dates, discount rate and price increases in the period leading up to removal
Tariffs related provision	5.7.5	Estimate of electricity usage and number of parties
Other provisions	5.7.5	Mainly relate to estimate of probability, realisation date and curtailed feed-in volumes and prices
Net employee benefit obligation	7.1	Financial, actuarial and demographic assumptions

1.5 Foreign currency

These consolidated financial statements are presented in euros, which is also the parent company's and all subsidiaries functional currency.



2. Segment information

This section sets out the financial performance for the year in accordance with the way we manage our business (operating segments). We measure and assess our performance based on underlying financial information, which is explained further below.

We generate the majority of our revenue from our regulated operating segments in the Netherlands and Germany. Therefore close collaboration with our respective regulators to obtain agreements that balance the risks we face with the opportunity to deliver reasonable returns for our investors is key to us. Our involvement in certain limited non-regulated activities are closely related and ancillary to our core tasks.

2.1 Segment analysis

Our Executive Board is the chief operating decision-making body of the company (as defined by IFRS 8 'Operating segments'). It monitors periodically the performance of the operating segments separately for the purpose of performance management and making decisions about resource allocation. The segment performance is based on underlying financial information, where EBIT and investments are the key metrics. The definition of EBIT equals operating profit. Performance of non-regulated activities is evaluated based on EBIT.

Underlying financial information is based on the principle of recognising regulatory assets and liabilities for all of our regulated activities. This implies that amounts resulting from past events and which are allowed to be received or required to be paid back in future tariffs are recorded as an asset or liability, respectively (see note 2.2 for further reference). We believe that the presentation of underlying financial information leads to a sound, consistent and transparent financial insight into past and future business performance.

Our operating segments consist of (i) TSO Netherlands, (ii) TSO Germany and (iii) non-regulated companies.

For management information, purposes the performance of our regulated activities in the Netherlands and in Germany are considered separately into two segments (corresponding to the geographical distribution). This segmentation, based on separately applicable regulatory frameworks, is the key determinant for financial management of the business and for decision-making on budgets, allocation of resources and financing. In addition, and in conformity with previous years, non-regulated activities are considered separately.

Financing activities (including finance income and expenses) are managed on a Group basis and amounts related thereto are not allocated to the segments. Transfer prices between the Netherlands and Germany are at arm's length in a manner similar to transactions with third parties. These intercompany transactions are eliminated in the consolidation. There is no material concentration of customers in any of the operating segments.

(EUR million)	2017					2016				
	Revenue	EBIT	Investments	Assets	Liabilities	Revenue	EBIT	Investments	Assets	Liabilities
TSO Netherlands	838	190	736	5,781	3,323	747	146	575	5,529	3,193
TSO Germany	3,122	651	1,032	15,519	10,669	2,477	617	1,273	13,993	9,381
Non-regulated activities	35	59	2	1,026	137	29	70	-	1,309	147
	3,995	900	1,770	22,326	14,129	3,253	833	1,848	20,831	12,721
Eliminations and adjustments	-47	-3	-	-1,914	814	-26	1	-	-1,857	1,461
Consolidated underlying information	3,948	897	1,770	20,412	14,943	3,227	834	1,848	18,974	14,182

For an analysis of the underlying results see the 'Financial' section of 'Our performance in 2017' section of the integrated annual report.

2.2 ⓘ Accounting policies applied for underlying financial information

Underlying financial information matches regulatory revenues and expenses in a corresponding reporting period, and fully defers any income until used for investments or tariff reductions.



Matching is achieved by recognising regulatory deferral accounts. The key requirement for the recognition of regulatory deferral accounts is that an existing regulatory framework must be in place that permits the future reimbursement or requires the future settlement of the regulated asset or liability respectively. Consequently, a regulated asset is recognised in underlying financial information in respect of permitted reimbursements of current year expenses in future years tariffs. And vice versa, a regulated liability is recognised in underlying financial information in respect of required settlements (i.e. repayments) of current year revenues through future tariffs.

Furthermore, until 2015 certain investments were financed via auction receipts resulting from auctioning available capacity on cross-border interconnections (see note 2.3). The different accounting treatment of the regulatory deferral accounts also results in a different fair value of assets.

2.3 Regulatory deferral accounts: reconciliation to IFRS figures

The difference between the underlying financial information - as presented in the segment information and board report - and IFRS reported figures is related to the recognition of regulated assets and liabilities, and auctions receipts, and the measurement of tangible fixed assets. In our IFRS financial statements, these are recognised as revenue when realised. These differences also result in different deferred tax balances in underlying financial information compared to IFRS reported figures. No other differences between underlying financial information and IFRS exist.

Underlying financial information can be reconciled to reported IFRS figures as follows:

2017 (EUR million)	EBIT	Assets	Liabilities	Recovery/ reversal period (years)
Consolidated underlying information	897	20,412	14,943	
To be settled in tariffs	-116	-848	-92	0 - 5
Auction receipts	80	-	-910	0 - 30
Investment contributions	-10	-	-259	0 - 31
Maintenance of the energy balance	27	-	-35	0 - 1
Difference in tangible fixed assets	22	-322	-	0 - 31
Effect on deferred tax balances	-	-5	2	0 - 31
Consolidated IFRS financial statements	900	19,237	13,649	

2016 (EUR million)	EBIT	Assets	Liabilities	Recovery/ reversal period (years)
Consolidated underlying information	834	18,974	14,182	
To be settled in tariffs	-504	-979	-92	0 - 5
Auction receipts	77	-	-1,046	0 - 30
Investment contributions	-10	-	-269	0 - 32
Maintenance of the energy balance	19	-	-33	0 - 1
Difference in tangible fixed assets	23	-345	-	0 - 32
Effect on deferred tax balances	-	-1	6	0 - 32
Consolidated IFRS financial statements	439	17,649	12,748	

As the adjustments for reconciling consolidated underlying revenue to consolidated IFRS revenue are the same for the reconciliation of EBIT, no further information is shown in this respect in the above tables.

To be settled in tariffs

Revenue surpluses and deficits resulting from differences between expected (ex ante) and realised (ex post) electricity transmission volumes are incorporated in the tariffs of subsequent years in both Germany and the Netherlands. In the underlying financial information, these surpluses and deficits are recorded as assets and liabilities, respectively, in the statement of financial position under 'to be settled in tariffs'. Compared to 2016, the decrease is mainly related to the compensation of grid related expenses. Due to regulatory changes, this compensation reflects 2015 expenses over 2017 (i.e. a two-year delay). From 2017 onwards, feed-in management will be compensated for in the year of occurrence.

Auction receipts & investment contributions

Auction receipts result from auctioning the available transmission capacity on cross-border interconnections. These receipts are not at our free disposal. In accordance with European law, auction receipts are to be used to invest in additional cross-border interconnections or to be refunded through tariff reductions. In the Netherlands, we have agreed with our regulator, (Autoriteit Consumenten Markt) the ACM to fully utilise auction receipts to reduce future tariffs. The current outstanding balance of auction receipts will be refunded via the tariffs over the coming years. In Germany, the use of auction receipts for investments is effectively achieved by reducing tariffs over a rolling 30-year period.

Investments financed by using auction receipts are classified as investment contributions and are reported under 'liabilities'. A periodic amount equal to the depreciation charges, plus a portion of the operating expenses, is released to the statement of income.



Maintenance of the energy balance

As system manager of the high-voltage grid in the Netherlands, we receive funds from performing certain statutory duties, such as the maintenance of the energy balance. The proceeds from these activities (i.e., imbalance settlements) may only be used after approval by the ACM. Imbalance settlements collected during the year are to offset in transmission tariffs in the subsequent year. Consequently, these amounts are recorded as a liability in the underlying financial information.

Differences in tangible fixed assets

Differences in tangible fixed assets occur due to the difference in accounting treatment of the regulatory deferral accounts and the related cash flows in order to determine the economic useful life and recoverable amount of the assets resulting from acquisitions and used for impairment analysis.

3. Results for the year

This section comprises notes related to the revenue, operating expenses and results for the year as determined under IFRS. Also our taxation policies, including our tax strategy, accounting policy, and an analysis of the income tax for the year and its related deferred tax assets and liabilities at year-end are included in this section.

3.1 Revenue

(EUR million)	2017	2016
Connection and transmission services	2,905	1,870
Maintenance of energy balance	107	71
Operation of energy exchanges	136	104
Offshore balancing	737	693
Other	91	105
Total	3,976	2,843

3.1.1 Connection and transmission services

Materially, all revenue from connection and transmission is regulated by the ACM in the Netherlands and by the Bundesnetzagentur (BNetzA) in Germany. Revenue from connection and transmission services includes revenue from services provided to regional grid operators and industrial clients (such as resolution of transmission restrictions, congestion management and reactive power management). Revenues increased significantly in 2017. This was mainly due to revenue received as compensation for German feed-in management expenses. Due to regulatory changes, this compensation reflects 2015 expenses over 2017 (i.e. a two-year delay). From 2017 onwards, feed-in management will be compensated for in the year of occurrence. Consequently, the 2017 revenue contains the compensation for two years (i.e. 2015 and 2017).

3.1.2 Maintenance of the energy balance

We are responsible for ensuring that the balance between the electricity supply and demand is stable at all times (i.e. alternating current frequency in the power grid must be of 50 Hz). If this balance is significantly disrupted, it may result in a power outage or even a black-out, depending on the length and severity of the imbalance. To ensure this balance, we contract and deploy (among others) reserve and emergency capacity to compensate fluctuations in supply and demand. The proceeds from maintaining this energy balance (e.g. imbalance settlements) fluctuate considerably and are refunded through regulated tariffs in both the Netherlands and Germany in subsequent years.

3.1.3 Operation of energy exchanges

This amount includes revenues resulting from the auctioning of cross-border interconnection capacity.

3.1.4 Offshore balancing

In accordance with German law, approximately 70% of our offshore-related costs are charged through to the other three German 'Transmission Service Operators' (TSOs) (so called 'horizontal balancing'). The revenue arising from this is classified as 'revenue from offshore balancing'.

3.1.5 ① Accounting policy with respect to revenue

Revenue is recognised to the extent that it is probable that the economic benefits will flow to the Group and the revenue can be reliably measured, regardless of when the payment is being made.

Revenue is measured at the fair value of the consideration received or receivable, taking into account contractually defined terms of payment and excluding taxes or duty. Revenue includes an assessment of unbilled connection and transmission services supplied to customers between the date of the last meter reading and year-end. This assessment is based on expected consumption and weather patterns.

If revenue received or receivable exceeds the maximum annual amount as determined by the regulator, ACM or BNetzA, an adjustment will be made to future tariffs to reflect this over-recovery under IFRS. No liability is recognised since this adjustment relates to the provision of future services. Similarly, no asset is recognised when a regulator permits increases to be made to future tariffs in respect of under-recovery.

3.2 Operating expenses

3.2.1 Grid expenses

(EUR million)	2017	2016
System services	1,368	835
Connection and transmission services	285	256
Maintenance of energy balance	79	52
Maintaining and operating transmission grids	378	330
Other	1	-3
Total	2,111	1,470

System services expenses comprise mainly of the expenses for measures taken to restore imbalances of the electricity grid and for grid losses. Compared to 2016, significantly more redispatch measures were taken in Germany in 2017 mainly due to low temperatures and an energy emergency demand in France in the first quarter of 2017. A number of estimation uncertainties such as feed-in volumes, weather conditions and electricity prices affect the calculation of the grid expenses and related accrual (see note 5.6.3).

3.2.2 Personnel expenses

(EUR million)	2017	2016
Salaries	240	227
Social security contributions	33	30
Pension charges defined benefit plans	11	10
Pension charges other plans	15	12
Other personnel expenses	18	16
Capitalised costs for tangible fixed assets	-126	-112
Total	191	183

Average workforce in FTEs (internal employees only)	3,061	2,954
Average workforce in FTEs employed in the Netherlands	1,304	1,295



Key management remuneration

Members of the Executive Board and Supervisory Board are regarded as key management. Aggregate remuneration paid to members of the Supervisory Board and Executive Board is as follows:

Supervisory Board (EUR thousand)	Fixed	Committee fee	Total
2017	125	46	171
2016	130	45	175

Executive Board (EUR thousand)	Fixed	Variable	Pension cost	Total
2017	1,802	326	478	2,606
2016	1,796	254	445	2,495

The aggregate Executive Board remuneration comprises of remuneration paid to statutory directors of EUR 1,915 thousand (2016: EUR 1,848 thousand) and remuneration paid to non-statutory directors of EUR 691 thousand (2016: EUR 641 thousand). Pension remuneration equals (i) the contributions payable to the defined contribution plan for service rendered in the period or (ii), for defined benefit plans, the current service cost and, when applicable, past service cost.

3.2.3 Other operating expenses

(EUR million)	2017	2016
Accommodation and office expenses	76	73
Consultancy expenses	24	24
Hiring of temporary personnel	46	47
Travel and living expenses	14	13
Other expenses	45	66
Total	205	223

Other expenses in 2017 included a partial release of the provision for compensation payable to offshore wind farm (OWF) operators in respect of possible interruptions and or delays in offshore high-voltage connections. For further details see note 5.7.3. During 2017 classification of expenses has been reassessed and as a result the 2016 comparative figures have been adjusted in order to conform to the current year's presentation. For the 2016 figures EUR 41 million of expenses have been reclassified from grid expenses to other operating expenses in order to better reflect the nature of these costs.

The total fees for EY network firms (including Ernst & Young Accountants LLP) were as follows:

(EUR thousand)	2017	2016
Audit of the financial statements		
Ernst & Young Accountants LLP	665	524
Other Ernst & Young firms	662	762
Total audit of the financial statements	1,327	1,286
Other assurance services		
Ernst & Young Accountants LLP	136	207
Other Ernst & Young firms	120	153
Total other assurance services	256	360
Total assurance services	1,583	1,646
Tax consultancy (other Ernst & Young firms)	27	105
Other services (other Ernst & Young firms)	24	46
Total other services	51	151
Total EY network fees	1,634	1,797

3.3 Finance expenses

(EUR million)	2017	2016
Interest on borrowings and credit facilities	154	135
Capitalised interest on assets under construction	-8	-10
Interest on provisions	19	20
Interest on defined benefit pensions	3	3
Other finance expenses	11	18
Total	179	166

3.4 Income tax

We strive to comply with all applicable tax legislation in a socially responsible manner, maintaining the highest levels of transparency, quality and integrity. Management responsibility and oversight of our tax strategy lies with our 'Chief Financial Officer' (CFO), our Senior Manager Financial Control and our Corporate Tax Manager who monitor our tax activities and report to the Executive Board and the Audit, Risk and Compliance Committee.

Our tax strategy is fully consistent with our corporate strategy. Building a transparent relationship with tax authorities based on mutual trust is an integral part of this strategy. We have built and are continuously improving on a tax control framework to be 'in control' of tax risks and to allow the company to demonstrate to all its stakeholders, including the tax authorities, that the company fully complies with all applicable laws and regulations.

Income tax is payable in the Netherlands, Germany and Belgium. In the Netherlands, we entered into a so called 'horizontal monitoring agreement' with the Dutch tax authorities. Based on transparency and mutual trust, this agreement ensures that tax positions are fully disclosed and agreed on in advance, as a result of which generally no tax audits are performed by the Dutch tax authorities. All corporate income tax returns in the Netherlands have been filed up to and including 2015. Tax paid in the Netherlands in 2017 amounted to EUR 68 million.

In Germany, corporate and trade tax returns for all German entities have been filed up to and including fiscal year 2015. The German tax authorities finalised a tax audit covering the fiscal years 2008 to 2012 and relating to all German entities. The effects hereof are included in the tax position below. In 2017 the German tax authorities announced a new tax audit covering the fiscal years 2013 to 2016. In 2017, we paid EUR 113 million of corporate income tax in Germany.

The key components of income tax expense are:

Consolidated income statement (EUR million)	2017	2016
Current income tax charge	210	129
Deferred tax:	-33	-91
Income tax expense reported in the income statement	177	38

Consolidated statement of comprehensive income (EUR million)	2017	2016
Effect of re-measurement of defined benefit pensions	-1	12
Income tax charged directly to other comprehensive income	-1	12

Income tax on profits has been provided at the rates prevailing in the respective countries. In the Netherlands, a statutory corporate income tax rate of 25.0% applied, while in Germany, on average, a marginal statutory corporate income tax rate of 29.3% applied (including trade tax by municipality or 'Gewerbesteuer'). Reconciliation between tax expense and the accounting profit multiplied by a statutory income tax rate of 25% is as follows:

(EUR million)	2017	2016
Profit before income tax	730	280
Statutory income tax rate of 25% (The Netherlands, 2016: 25%)	183	70
Effect of higher tax rate in Germany	24	7
Deferred tax differences	-8	-27
Non-deductible interest	-12	2
Non-deductible/taxable mainly participation exemption effect	-6	-11
Tax paid by third parties	-4	-3
At the effective income tax rate of 24% (2016: 14%)	177	38

The main reasons for the lower effective tax rate (1% lower) were the effect of the higher tax rate in Germany on the one hand (increased ETR effect) and the effect of our share in profit of joint ventures and associates is (subject to the Dutch participation exemption), usage of Interest carry forward in Germany and a future German tax credit. The line deferred and current tax differences relates to adjustments of the tax position.

Deferred tax relates to the following:

(EUR million)	Statement of financial position		Statement of income	
	2017	2016	2017	2016
Auction receipts	-215	-248	-32	-14
Investment contributions	-73	-73	-	-1
Tariffs to be settled	8	6	-3	-37
Accelerated depreciation for tax purposes	-165	-176	-11	-16
Provisions	224	190	-36	-20
Profit allocation to hybrid	-4	-5	-	-
Other	8	57	49	-3
Net deferred tax assets/(liabilities)	-217	-249		
Deferred tax expense/(income)			-33	-91

The deferred tax is presented in the statement of financial position as follows:

(EUR million)	2017	2016
Deferred tax assets	5	3
Deferred tax liabilities	-222	-252
Deferred tax, net	-217	-249

The movement of the deferred tax position is set out below.

(EUR million)	2017	2016
At 1 January	-249	-352
Tax expense during the period recognised in statement of income	33	91
Tax income during the period recognised in other comprehensive income	-1	12
At 31 December	-217	-249

The Group does not have any tax loss carry forwards.

① Accounting policy

The tax charge for the period is recognised in the income statement, the statement of comprehensive income or directly in equity, in accordance with the relevant accounting treatment of the related transaction. The tax charge comprises both current and deferred tax.

Current income tax assets and liabilities for the current period are measured at the amount expected to be recovered from or paid to the tax authorities. The tax rates and tax laws used to calculate these amounts are those enacted or substantively enacted at the reporting date in those countries where we operate and generate taxable income.

Deferred tax is recognised using the liability method on temporary differences between the tax bases of assets and liabilities and their respective carrying amounts for financial reporting purposes at the reporting date. Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the year when the asset is realised or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted at the reporting date in the relevant jurisdictions.

Deferred tax is generally recognised in respect of all temporary differences, the carry-forward of unused tax credits and any unused tax losses. Deferred tax assets (also in association with investments in subsidiaries, associates and interests in joint arrangements) are recognised to the extent that it is probable that taxable profit will be available against which the deductible temporary differences and the carry-forward of unused tax credits and unused tax losses can be utilised. Deferred tax is not recognised for the temporary differences arising from the initial recognition of goodwill or an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss.

The carrying amount of deferred tax assets is reviewed at each reporting date and reduced to the extent that it is no longer probable that sufficient taxable profit will be available to allow all or part of the deferred tax asset to be utilised. Unrecognised deferred tax assets are reassessed at each reporting date and are recognised to the extent that it has become probable that future taxable profits will allow the deferred tax asset to be recovered.

Deferred tax assets and liabilities must be recognised gross in the statement of financial position unless:

- the entity has a legally enforceable right to set off current tax assets against current tax liabilities and
- the deferred tax assets and the deferred tax liabilities relate to income taxes levied by the same taxation authority on either:
 - the same taxable entity or
 - different taxable entities which intend either to settle current tax liabilities and assets on a net basis, or to realise the assets and settle the liabilities simultaneously, in each future period in which significant amounts of deferred tax liabilities or assets are expected to be settled or recovered.

3.5 Earnings per share

Earnings per share have been calculated by dividing the profit for the year attributable to ordinary shareholder of the Group, after adjustment for the distribution on hybrid securities, by the weighted average number of ordinary shares outstanding during the year. The following table reflects the income and share data used for the basic and diluted earnings per share calculations:

(EUR million)	2017	2016
Profit for the year attributable to ordinary shareholder of the company	477	167
Allocation to hybrid securities	-35	-33
Tax effect on allocation to hybrid securities	9	8
Profit for the year attributable to equity holders of the company adjusted for the allocation to hybrid securities	451	142
Weighted average number of ordinary shares in issue (in thousands)	200	200

4. Grid investments, other tangible fixed assets and related commitments

We own a significant physical asset base to operate our transmission grid. To solve transmission bottlenecks and ensure grid stability we continue to invest in our network. To accommodate expanding solar and wind energy sources sizable further onshore and offshore grid investments in Germany and the Netherlands are necessary in the upcoming years. This section focuses on our tangible fixed assets and related commitments which form the basis of our activities.

4.1 Tangible fixed assets

(EUR million)	High-voltage substations	High-voltage connections	Other assets	Assets under construction	Total
Cost					
At 1 January 2016	5,582	4,659	635	3,570	14,446
Additions	169	215	18	1,446	1,848
Transfers	777	442	41	-1,260	-
Transfer to intangible assets	-	-	-	-13	-13
Changes in estimations (note 5.7.5)	-16	-25	-	-	-41
Disposals	-26	-1	-18	-7	-52
At 31 December 2016	6,486	5,290	676	3,736	16,188
Additions	133	119	20	1,498	1,770
Initial recognition of acquired companies (note 5.2)	-	-	11	-	11
Transfers	302	408	7	-717	-
Transfer to intangible assets	-	-	-	-7	-7
Changes in estimations (note 5.7.5)	17	24	-	-	41
Disposals	-8	-	-	-	-8
At 31 December 2017	6,930	5,841	714	4,510	17,995
Depreciation and impairment					
At 1 January 2016	1,066	1,134	141	-	2,341
Depreciation for the year	304	215	47	-	566
Disposals	-24	-1	-15	-	-40
At 31 December 2016	1,346	1,348	173	-	2,867
Depreciation for the year	320	233	48	-	601
Disposals	-3	-	-	-	-3
At 31 December 2017	1,663	1,581	221	-	3,465
Net book value:					
At 1 January 2016	4,516	3,525	494	3,570	12,105
At 31 December 2016	5,140	3,942	503	3,736	13,321
At 31 December 2017	5,267	4,260	493	4,510	14,530

High-voltage substations include transformers and onshore and offshore converter stations. High-voltage connections consist of overhead and underground connections. Unlike lands for substations, lands surrounding high-voltage pylons and cables are generally not owned by the Group. Other tangible fixed assets consist of office buildings, office ICT equipment and other company assets.

In 2017 the discount rate for the decommissioning provision changed from 3.6% to 3% for OWF connections and from 2.6% to 2.2% for onshore connections (see note 5.7.5). Since the main part of the decommissioning provision was recognised as part of the carrying value of the related asset, the change in discount and inflation rate directly impacted this carrying value.

The amount of borrowing costs capitalised during 2017 is disclosed in note 3.3. The effective interest rate used to determine the amount of borrowing costs capitalised was 2.2% (2016: 2.5%).

Assets under construction

(EUR million)	2017		2016	
	Investments	Assets under construction	Investments	Assets under construction
TSO Netherlands	736	1,328	575	1,014
TSO Germany	1,032	3,182	1,273	2,722
Non-regulated activities	2	-	-	-
Total	1,770	4,510	1,848	3,736

The focus of our asset related activities is on (large) construction projects and maintenance activities, which are managed by separate departments.

① Accounting policy tangible fixed assets

Tangible fixed assets are valued at cost, net of accumulated depreciation and accumulated impairment losses, if any. Such cost includes the cost of replacing part of the asset and borrowing costs for long-term construction projects if the recognition criteria are met. When significant parts of the asset are required to be replaced at intervals, such parts are recognised as individual assets with specific useful lives and depreciated accordingly. Likewise, when a major maintenance is performed, its cost is recognised in the carrying amount of the asset as a replacement, if the recognition criteria are satisfied. All other repair and maintenance costs are recognised in profit or loss as incurred. The present value of the expected cost for the decommissioning of an asset after its use is included in the cost of the respective asset, if the recognition criteria for a provision are met. Depreciation is calculated on a straight line basis.

An asset is derecognised on disposal or when no future economic benefits are expected from its use. Any gain or loss arising on derecognition of the asset (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is included in the statement of income when the asset is derecognised.

General and specific borrowing costs directly attributable to the acquisition, construction or production of the tangible fixed assets, are added to the cost, until such time as the assets are substantially ready for their intended use or sale. No borrowing costs are capitalised where the borrowing costs are directly compensated in the year of construction.

Key estimates and assumptions tangible fixed assets

To calculate depreciation amounts, the following useful lives of the various asset types are assumed:

Estimated useful lives tangible fixed assets	Years
Substations	
Switches and offshore converter stations	20-35
Security and control equipment	10-20
Power transformers	20-35
Capacitor banks	20-35
Telecommunications equipment	10-20
Connections	
Pylons/lines	35-40
Cables (subsea and underground)	20-40
Other	
Office buildings	40-50
Office IT equipment	3-5
Process automation facilities	5
Other company assets	5-10

Residual values, useful lives and methods of depreciation of assets are reviewed at each financial year-end and adjusted prospectively, if appropriate.

4.2 Deferred income

The majority of the deferred income relates to investment contributions received from certain third parties for the construction of a new substation, a grid connection or increased capacity for its connection (EUR 281 million; 2016: EUR 269 million). The current part of the investment contributions amounts to EUR 3 million (2016: EUR 5 million) and is presented separately in the statement of financial position.

Accounting policy

At initial recognition contributions received from third parties are measured at fair value, presented as deferred income ('investment contributions') and recognised as revenue over the related asset's useful life.

4.3 Commitments and contingencies related to investments

Off-balance sheet rights and obligations related to investments consist of the following categories:

(EUR million)	2017	2016
Off-balance sheet rights		
Bank guarantees received	1,380	1,577
Comfort letters received	682	552
Total	2,062	2,129
Off-balance commitments		
Capital commitments	3,705	2,353
Comfort letters issued	4	7
Operating lease commitments	283	286
Total	3,992	2,646

4.3.1 Bank guarantees received

Bank guarantees received include guarantees for investment projects.

4.3.2 Comfort letters received

The majority of comfort letters received is from construction companies primarily involved in the construction of German offshore projects.

4.3.3 Capital commitments

Capital commitments relate to commitments entered into with regard to the purchase of tangible fixed assets. The increase is mainly due to the start of the Dolwin6 project in Germany, for which we have entered into a capital commitments during 2017. Approximately EUR 1,401 million of capital commitments are payable within the next 12 months (2016: EUR 1,535 million).

4.3.4 Operating lease commitments

We have entered into operating lease commitments for certain assets. Operational lease commitments for German powerplants previously recorded under the grid related commitments (see note 7.2.1) have been reclassified to operational lease commitments (2016: EUR 164 million). The commitments comprise of fixed payments to German powerplants that serve as redispatch and/or black facility in order to enable TenneT to operate the grid and secure supply. In relation to the forthcoming IFRS 16 adoption as per 1 January 2019, the classification of these grid related commitments has been reassessed and as a result have been reclassified to the operating lease commitments.

In 2017 the operating lease expenses amount to 87 EUR million (2016: EUR 15 million). Future minimum lease payments under non-cancellable operating leases are as follows:

(EUR million)	2017	2016
Within the next 12 months	93	130
Whitin 2-5 years	149	106
More than 5 years	41	50
Total	283	286

① Accounting policy

Leases in which substantially all risks and rewards of ownership are retained by the lessor are classified as operating leases. Payments made under operating leases (net of any incentives received from the lessor) are charged to the statement of income on a straight-line basis over the period of the lease.

Leases in which a significant portion of the risks and rewards of ownership are transferred to the lessee are classified as financial leases.

5. Other invested capital including working capital and provisions

Other invested capital includes intangible assets to support our operations, goodwill related to acquired business and working capital. Working capital comprises current assets and current liabilities which results from our daily operations (such as trade receivables and payables). Our working capital requirements are significantly impacted by the execution of the 'Renewable Energy Sources Act' (EEG) legislation, our grid related accruals and investments.

We carry a provision that reflects the expected cost to remediate and decommission our assets. Also in the ordinary course of our business, we are party to several claims from and disputes with third parties. We record a provision for these claims and disputes when we expect a future cash outflow.

5.1 Intangible assets

(EUR million)	Goodwill	Software	Customer contracts	Other intangible assets	Intangible assets under construction	Total
Cost						
At 1 January 2016	31	175	64	23	2	295
Additions	-	4	-	-	2	6
Transfers	-	13	-	-	-13	-
Transfer from tangible fixed assets	-	1	-	-	12	13
At 31 December 2016	31	193	64	23	3	314
Additions	-	2	-	1	1	4
Initial recognition of acquired companies (note 5.2)	-	-	-	6	-	6
Transfers	-	7	-	-	-7	-
Transfer from tangible fixed assets	-	-	-	-	7	7
At 31 December 2017	31	202	64	30	4	331
Amortisation and impairment						
At 1 January 2016	-	135	33	7	-	175
Amortisation for the year	-	24	5	1	-	30
At 31 December 2016	-	159	38	8	-	205
Amortisation for the year	-	21	5	2	-	28
At 31 December 2017	-	180	43	10	-	233
Net book value:						
At 1 January 2016	31	40	31	16	2	120
At 31 December 2016	31	34	26	15	3	109
At 31 December 2017	31	22	21	20	4	98

At 31 December 2017 and 2016, goodwill was allocated to cash generating units (CGUs): TSO Netherlands (EUR 3 million), TSO Germany (EUR 24 million) and non-regulated activities (EUR 4 million).

① Accounting policy

Intangible assets are measured at acquisition cost on initial recognition. The cost of intangible assets acquired in a business combination is their fair value at the date of acquisition. Following initial recognition, intangible assets are carried at cost less any accumulated amortisation and accumulated impairment losses. Internally generated intangible assets, excluding capitalised development costs, are not capitalised and expenses are reflected in the statement of income in the period in which they are incurred.

Goodwill is initially measured at cost and represents the excess of the consideration transferred over TenneT's interest in the value of the net identifiable assets, liabilities and contingent liabilities of the acquiree and the amount of the non-controlling interest in the acquiree. After initial recognition, goodwill is measured at cost less any accumulated impairment losses.

At each reporting date, we assess whether there is an indication that an asset may be impaired. If any indication exists, or when annual impairment testing for an asset is required, the asset's recoverable amount is estimated. The recoverable amount is the higher of an asset's or CGU's fair value less costs of disposal and its value in use. When the carrying amount of an asset or CGU exceeds its recoverable amount, the asset is considered impaired and is written down to its recoverable amount.

🔑 Key estimates and assumptions

Estimated useful lives intangible assets	Years
Goodwill	Indefinite
Software	3-5
Customer contracts	10-14
Purchased rights to use land	25-45
Other	5-15

As shown in the table, intangible assets, with exception of goodwill, are assumed to have a fixed useful life and are amortised over the asset's useful life. The useful life is re-assessed at least at the end of each reporting period. Intangible assets are amortised in a straight line, as this best reflects the use of the asset.

Goodwill is assumed to have an indefinite useful life and is therefore not amortised, but is tested for impairment annually or more frequently if events or changes in circumstances indicate a triggering event, either individually or at the CGU level. The assessment of indefinite useful life is reviewed annually.

Impairment testing of goodwill

For the purpose of impairment testing, goodwill acquired in a business combination is allocated to each of the CGUs (our operating segments) or groups of CGUs expected to benefit from the synergies of the combination. Each CGU or group of CGUs to which the goodwill is allocated represents the lowest level within the entity at which the goodwill is monitored for internal management purposes.

In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. In determining fair value less costs of disposal, an appropriate valuation model is used, since no recent market transactions can be identified.

The impairment calculation is based on detailed projections, which are prepared separately for each of the CGUs to which the individual assets are allocated. The projections reflect current regulatory parameters taking into account expected future regulatory developments. Management believes that the resulting cash flows can be determined reliably and that they give an appropriate reflection of the CGUs cash flow generating potential.

The recoverable amount of the TSO Germany CGU was determined based on a value in use calculation using cash flow projections from our three year business plan. The pre-tax discount rate applied to cash flow projections was 4.1%. The cash flows beyond the three-year period until 2037 were estimated on the basis of regulatory allowed returns and invested capital. The terminal value is determined estimating the regulatory asset base as of December 2037. We concluded that the recoverable amount was significantly in excess of the carrying value. Of the German TSO CGU, management determined that no impairment loss needed to be recognised.

5.2 Business combinations

Effective 17 February 2017 TenneT acquired the remaining 50% in Relined B.V. from Prorail for a cash consideration of EUR 5 million and consequently obtained full control.

The acquisition of Relined gave rise to an EUR 3 million gain and resulted in the derecognition of the joint venture interest of EUR 2 million.

① Accounting policy

Business combinations are accounted for using the acquisition method. The cost of an acquisition is measured as the aggregate of the consideration transferred, measured at acquisition date fair value and the amount of any non-controlling interest in the acquiree. For each business combination, we elect whether to measure the non-controlling interest in the acquiree at fair value or at the proportionate share of the acquiree's identifiable net assets. Acquisition-related costs are expensed as incurred and included in administrative expenses.

Non-current assets held for sale are defined as non-current assets (other than financial instruments or property investments) immediately available for sale and highly likely to be sold within a year. Non-current assets held for sale have been stated at the lower end of the asset's carrying value and fair value less costs of disposal.

5.3 Investments in joint ventures and associates

5.3.1 Joint ventures

We have, directly or indirectly, 50% equity stakes in BritNed Development Ltd. ('BritNed'), DC Nordseekabel GmbH & Co. KG ('NOKA'), DC Nordseekabel Beteiligungs GmbH, DC Nordseekabel Management GmbH, Reddyn B.V., Tensz B.V. and TeslaN B.V. These investments are classified as joint ventures, for which only the investments in BritNed (legal seat: Arnhem, the Netherlands) and NOKA (legal seat: Bayreuth, Germany) are considered as an investment of material value. Other joint ventures are considered immaterial and are therefore not further disclosed. The Group's share in profit of these immaterial joint ventures amounted EUR 1 million.

BritNed

BritNed is a joint venture with National Grid International Ltd, the British TSO. It owns and operates a 1,000 MW 'Direct Current'(DC) interconnector between the United Kingdom and the Netherlands. Operating costs and trading revenue are shared equally between TenneT and National Grid.

NOKA

In February 2015, partner companies Statnett SF, TenneT and KfW IPEX-Bank GmbH made a final investment decision to establish an interconnector between Norway and Germany under the project name 'NordLink'. Ownership of the interconnector is equally split, with TenneT and KfW owning the Southern part through NOKA, a jointly owned company and Statnett owning the Northern part. At the moment the main activities of NOKA are the construction of the Southern part of the interconnector. Operating costs and trading revenue are shared equally between NOKA and Statnett.

The table below shows summarised financial information of material joint ventures and the reconciliation with the carrying amount.



Statement of financial position (EUR million)	2017		2016	
	BritNed	NOKA	BritNed	NOKA
Non-current assets	448	508	463	249
Cash and cash equivalents	16	24	46	15
All other current assets	45	6	13	13
Non-current liabilities	-11	-35	-11	-19
Current liabilities	-37	-139	-45	-72
Equity	461	364	466	186
<i>Ownership TenneT</i>	<i>50%</i>	<i>50%</i>	<i>50%</i>	<i>50%</i>
Carrying amount of the investment	231	182	233	93

Statement of income (EUR million)	2017		2016	
	BritNed	NOKA	BritNed	NOKA
Revenue	148	36	209	19
Depreciation and amortisation	-16	-	-16	-
Other costs	-19	-1	-21	-2
Operating profit	113	35	172	17
Finance income and expenses	-	-1	-3	-
Income tax expense	-22	-	-38	-
Profit for the year*	91	34	131	17
<i>Ownership TenneT</i>	<i>50%</i>	<i>50%</i>	<i>50%</i>	<i>50%</i>
Group's share in profit	46	17	66	8

* Profit for the year is equal to total comprehensive income.

BritNed has contingent liabilities of EUR 5 million (2016: EUR 5 million) mainly related to comfort letters issued.
NOKA has contingent liabilities of EUR 0.8 billion (2016: EUR 0.6 billion) mainly related to investments.

None of our joint ventures can distribute profits until consent from all shareholders or partners has been obtained.
In 2017 EUR 49 million dividend was received from BritNed (2016: EUR 83 million) and EUR 1 million from Reddyn B.V. (2016: EUR 2 million). During 2017 we contributed EUR 72 million to NOKA's capital (2016: EUR 37 million).



5.3.2 Associates

At 31 December 2017 our substantial investments in associates consisted of a 34% interest in HGRT and a 25% interest in Open Tower Company B.V. (hereafter referred to as 'OTC'). In addition, the Group holds four immaterial investments in Energie Data Services Nederland B.V. (EDSN), European Market Coupling Company GmbH (EMCC), TSCNET Services GmbH (TSC) and ETPA Holding B.V. (ETPA). The Group's share in profit of these immaterial associates amounted to EUR 2 million.

The summarised financial information of the material associates and reconciliation with their respective carrying amount of the investment in the consolidated financial statements is as follows:

Statement of financial position (EUR million)	2017		2016	
	HGRT	OTC	HGRT	OTC
Non-current assets	103	106	98	111
Current assets	1	30	2	28
Other non-current liabilities	-	-141	-	-158
Current liabilities	-	-17	-	-4
Equity	104	-22	100	-23
<i>Ownership TenneT</i>	34%	25%	34%	25%
Carrying amount of the investment	35	-	34	-

Statement of income (EUR million)	2017		2016	
	HGRT	OTC	HGRT	OTC
Revenue	-	26	-	26
Depreciation and amortisation	-	-6	-	-6
Other costs, gains and losses	-	-5	-	-5
Operating profit	-	15	-	15
Finance income and expenses	8	-6	8	-6
Income tax expense	-	-2	-	-2
Profit for the year*	8	7	8	7
<i>Ownership TenneT</i>	34%	25%	34%	25%
Group's share in profit	3	2	3	-

* Profit for the year is equal to total comprehensive income.

HGRT

The legal seat of HGRT is in Paris, France. HGRT holds a 49% stake in EPEX. EPEX is the exchange for the power spot markets for the 'North West Europe' (NWE) region and the United Kingdom. At 31 December 2017, HGRT had no contingent liabilities outstanding (2016: nil). In 2017, EUR 2 million in dividends was received (2016: EUR 3 million).

OTC

OTC (legal seat: Vianen, the Netherlands) is a holding company and holds majority interests in three asset companies, namely Colonne B.V., Mobile Radio Networks Vehicle B.V. (MRNV) and OTC II B.V. These companies mainly own infrastructure assets specifically designed for terrestrial communications. OTC had no contingent liabilities as at 31 December 2017 (2016: EUR 2 million). EUR 2 million dividend from OTC was received in 2017 (2016: EUR nil).

Other

Our interest in other associates amounts to EUR 2 million.



5.3.3 ① Accounting policy joint ventures and associates

A joint venture is an arrangement whereby the parties in the arrangement have joint control over the net assets of the joint arrangement. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control.

An associate is an entity in which we have significant influence, but no control. Significant influence is the power to participate in the financial and operating policy decisions of the investor.

Investments in joint ventures and associates are accounted for using the equity method. Under the equity method, the investment in the joint venture or associate is initially recognised at cost. The carrying amount of the investment is adjusted to recognise changes in the Group's share of net assets of the investment since the acquisition date. Goodwill relating to the associate is included in the carrying amount of the investment and is neither amortised nor individually tested for impairment.

The statement of income reflects our share of the results of operations of the investment. Any change in other comprehensive income of those investors is presented as part of the other comprehensive income. In addition, when there is a change recognised directly in the equity of the investment, our share of any change is recognised in the statement of changes in equity. Unrealised gains and losses resulting from transactions between us and the investment are eliminated to the extent of the interest in the investment.

When an associate or joint venture makes dividend distributions to us in excess of our carrying amount, a liability is recognised if TenneT:

- (i) is obliged to refund the dividend;
- (ii) have incurred a legal or constructive obligation; or
- (iii) made payments on behalf of the associate.

In the absence of such obligations, the excess in net profit for the period is recognised. When the associate or joint venture subsequently makes profits, this is only recognised when they exceed the excess cash distributions recognised in net profit plus any previously unrecognised losses.

After application of the equity method, we determine whether it is necessary to recognise an impairment loss on its investment in the joint venture or associate. At each reporting date, we determine whether there is objective evidence that the investment is impaired. If such evidence exists, the amount of impairment is calculated as the excess of the carrying value of the investment over its recoverable amount and recognised in the statement of income.

On loss of significant influence over the joint venture/associate, any retained investment is valued at fair value. Any difference between the carrying amount of the investment on loss of significant influence and the fair value of the retained investment and proceeds from disposal is recognised in the statement of income.

5.4 Other financial assets

(EUR million)	2017	2016
Receivables from related parties	23	18
Receivable from shareholder	280	630
Fees for credit facilities available	3	4
Other	5	3
Total	311	655

The receivable from related parties mainly consists of loans granted to NOKA (see note 5.3.1). The receivable from the shareholder reflects our contractual right to receive the cash consideration following the 2016 capital commitment. The remainder of the cash considerations will be received in 2018 (EUR 350 million) and in 2019 (EUR 280 million).

5.5 Account- and other receivables

(EUR million)	2017	2016
Amounts to be invoiced to EEG trade debtors	1,087	999
EEG trade receivables	40	34
Trade receivables	288	163
Amounts to be invoiced	479	376
Receivable from shareholder (note 5.4)	350	150
VAT receivables	41	33
Interest receivable	4	4
Other	145	116
Total	2,434	1,875

5.5.1 EEG trade receivables and amounts invoiced to EEG trade debtors

In accordance with the EEG in Germany, TSOs like TenneT TSO GmbH are required to purchase electricity from producers of renewable energy at fixed feed-in tariffs. Subsequently such renewable energy is sold on power exchanges at spot prices.

The difference is covered by an EEG levy, determined annually, which is part of German consumer tariffs. EEG revenues and expenses are legally separate and legally bound to be equal, except for certain potential bonus amounts payable to TenneT for marketing the energy on the power exchange. The EEG levy also includes an additional liquidity buffer to avoid a net financing need for the TSOs. We act as an agent with respect to these EEG services.

EEG trade debtors and receivables consist of the accrual of unbilled EEG levy mainly for the month December, the outstanding invoices for the EEG levy, and the accrual for horizontal balancing (i.e. unsettled charges to the other German TSOs) and energy trading revenues. EEG receivables are not at our free disposal.

5.5.2 Trade receivables

As at 31 December, the ageing analysis of the trade receivables was as follows:

(EUR million)	Total	Neither past due nor impaired	Past due but not impaired		
			0-30 days	31-60 days	More than 60 days
2017	288	254	11	3	20
2016	163	132	12	1	18

In respect of the regular trade receivables, credit risk is limited as substantially all potential losses resulting from non-collection are expected to qualify for compensation in future tariffs. Changes in the bad debt provision were as follows:

(EUR million)	2017	2016
At 1 January	5	8
Charge for the year	5	-
Utilised	-	-1
Unused amounts reversed	-1	-2
At 31 December	9	5

As at 31 December 2017, receivables with an initial value of EUR 1 million (2016: EUR 1 million) were fully provided for.



5.5.3 Amounts to be invoiced

The majority of the amounts to be invoiced relate to unbilled grid fees and recharged offshore costs in Germany.

5.6 Account- and other payables

(EUR million)	2017	2016
EEG accounts payable	2,342	2,017
Accounts payable	204	266
Payables in connection with tangible fixed assets purchases	365	393
Grid expenses payable	1,029	662
Interest payable	97	91
Social securities and other taxes payable	11	17
Payables to related parties	20	11
Other payables	286	209
Total	4,354	3,666

5.6.1 EEG accounts payable

See note 5.5.1.

5.6.2 Payables in connection with tangible fixed assets purchases

Payables in connection with tangible fixed assets purchases relates to unbilled services and deliveries for onshore and offshore investment projects.

5.6.3 Grid expenses payable

The grid expenses payable consists of the (i) accrued expenses for feed-in management, and (ii) redispatch measures.

Key estimates and assumptions

In terms of the accrued expenses for measures taken to restore the imbalance of the electricity grid, we procure balancing services and ask various generators to come on or off the grid to help balance supply and demand or to manage 'constraints' (i.e. bottlenecks) in the electricity grid. At year-end, we record an accrual for all balancing costs. The accrual is based on actual volumes (if available) or forecast volumes derived from models. Several assumptions regarding such matters as weather conditions, requested volumes and capacity per plant are made in these models. Prices are based on the underlying contracts and/or historical data. The complexity of the electricity market and uncertainties in assessing energy production from the likes of wind and solar power makes estimating the grid expenses payable a complex task. The compensation payments to OWFs are based on the energy amount which could not be fed into the grid. The pass-through accrual is based on a comparison of the costs incurred and the revenue generated by the offshore liability surcharge.

5.6.4 Other payables

The other payables mainly comprise compensation payments to offshore wind farms, personnel related liabilities and accruals for which invoices need to be received.

5.7 Provisions

(EUR million)	2017			2016		
	Current	Non-current	Total	Current	Non-current	Total
Environmental and decommissioning	24	570	594	7	506	513
Tariff related	41	16	57	112	15	127
Other	27	111	138	22	121	143
Total	92	697	789	141	642	783

(EUR million)	Environmental management and decommissioning	Tariff related	Other	Total
At 1 January 2016	460	178	123	761
Addition	87	10	24	121
Utilisation	-4	-52	-3	-59
Changes in estimations	-45	2	-1	-44
Unused amounts reversed	-4	-12	-	-16
Imputed interest	19	1	-	20
At 31 December 2016	513	127	143	783
Addition	28	8	24	60
Utilisation	-3	-21	-7	-31
Changes in estimations	47	-	-	47
Unused amounts reversed	-9	-58	-22	-89
Imputed interest	18	1	-	19
At 31 December 2017	594	57	138	789

5.7.1 Provision for environmental management and decommissioning

The provision for environmental management and decommissioning serves to cover future obligations in relation to high-voltage connections and underground cables, and to cover the decommissioning costs. In 2017 this included an additional EUR 10 million (2016: EUR 74 million) for future decommissioning costs for projects constructed during 2017. These additional funds were not recognised through the statement of income. There was no significant decommissioning of substations in 2017. The first decommissioning of an OWF connection is expected to start in 2029.

5.7.2 Tariff related

Tariff-related provisions mainly relate to provisions for system service fees in the Netherlands. We charge electricity consumers a fee for system services performed. Following a change in law, the court in the Netherlands concluded that only parties with a direct connection to a grid maintained by a TSO are required to pay system service fees for the period prior to 31 December 2014. Consequently, we are required to refund certain amounts to parties without a direct grid connection. These refunds can be recouped through future tariffs. In 2017 EUR 58 million of the provided amount matured and was released to the statement of income.

5.7.3 Other provisions

The majority of the other provisions relate to risks associated with delays and interruptions of offshore connections in Germany. The connection of OWFs presents additional technical and organisational challenges. A number of factors, including a lack of the supplier resources required for the construction of offshore grid connection system, as well as weather conditions and the application of new technologies, delayed the timely realisation and/or interrupted the operational phase of offshore grid connection systems.

TenneT based its assumptions and estimates on parameters available when the consolidated financial statements were prepared. Existing circumstances and assumptions about future developments, however, may change due to market changes or circumstances arising that are beyond control. Such changes are reflected in the assumptions when they occur.

5.7.4 ① Accounting policy provisions

Provisions are recognised when there is (i) a legal or constructive obligation as a result of past events, (ii) it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation, and (iii) when the amount can be reliably estimated. The provisions are measured at the present value of estimated cash flows to settle the obligation, based on expected price levels. The cash flows are discounted at a current pre-tax rate that reflects the risks specific to the liability. The interest unwinding is recognised in the statement of income as a finance cost. The estimated future costs are reviewed annually and adjusted as appropriate. Changes in the estimated future costs or in the discount rate applied are recognised in the statement of income.

Provisions are made for environmental management and decommissioning costs, based on future estimated expenditures, discounted to present values. The estimated future costs are reviewed annually and adjusted as appropriate. Changes in the future costs or in the discount rate applied for the environmental management provision are recognised in the statement of income.

Decommissioning costs are recognised as part of the cost of the particular asset. Changes arising from revised estimates or discount rates or changes in the expected timing of expenditures are added to or deducted from the cost of the asset. Estimated future costs for decommissioning obligations arising after the related asset is brought into use are recognised in the statement of income.

The unwinding of the discount is included in the income statement as a financing charge.

5.7.5 🌿 Key estimates and assumptions provisions

The estimated decommissioning provision involves assessing the expected remaining useful life of the respective asset. The useful life of the OWF connections is estimated at 20 years. The related decommissioning provision is discounted at a rate of 3% (2016: 3.6%). A change in the discount rate could have a maximum impact of EUR 82 million on the asset value. The onshore connections have a different profile for which a discount rate of 2.2% (2016: 2.6%) is used to calculate the net present value of expenditures. A change in discount rate of 1 % has an impact of EUR 3 million on the related book value.

The inflation rate remained at the same level as in 2016 (3.0%). A discount rate of 2.2% is applied for environmental management provisions (2016: 2.6%).

The estimated amount of the risks associated with delays and interruptions concerning the Group's offshore activities in Germany is based on the number of OWF connections, and the compensation paid to the OWFs.

We are of the opinion that the recorded provisions reflect the best estimate of the probable outflow of resources. However, uncertainty about the assumptions and estimates could result in outcomes that require a material adjustment to the carrying amount of these provisions in future periods.

5.8 Inventory

Our inventory is composed of oil which is used for measures taken at power plants that are standby for TenneT.

6. Capital structure and financing

To keep pace with the rising electricity consumption, the need for more transport capacity and shift in production areas, we must invest substantially in upgrading and expanding the high-voltage grid. Therefore a solid financial standing is needed to maintain good access to the financial markets to fund the necessary investments in our infrastructure. This section focuses on capital management, financing and the related risks.

6.1 Capital management

The primary objective of our capital structure is to ensure that we have a solid financial position to anticipate changes in the regulatory environment and to enable us to execute our extensive investment programme which is essential for the success of the energy transition in the Netherlands and Germany. The majority of the funding for our investment programme comes from the debt capital markets i.e. from institutional investors, commercial banks and international financial institutions (e.g. the EIB).

To maintain full access to financial markets at the most favourable conditions, we have defined capital management objectives, policies and processes and aims to:

1. maintain a senior unsecured credit rating of at least A3/A-;
2. maintain a Funds From Operations (FFO) to Net debt ratio based on 'underlying' financial information of at least 8%;
3. diversify the maturities of long-term funding instruments to limit refinancing risk;
4. maintain liquidity through cash and undrawn committed credit lines covering at least our cash requirement on a rolling 12-month forward-looking basis.

Our capital management objectives, policies or processes were unchanged during 2017 and 2016.

1. Maintain a senior unsecured credit rating of at least A3/A-

As of 31 December 2017 TenneT Holding B.V. had the following senior unsecured credit ratings from Standard & Poor's and Moody's Investor Service are consistent with our financial policy.

Credit rating at 31 December 2017 and 2016	Long-term rating	Short-term rating
Standard & Poor's	A- (stable outlook)	A-2
Moody's Investor Service	A3 (stable outlook)	P-2

2. Maintain a FFO/Net debt ratio based on underlying financial information of at least 8%

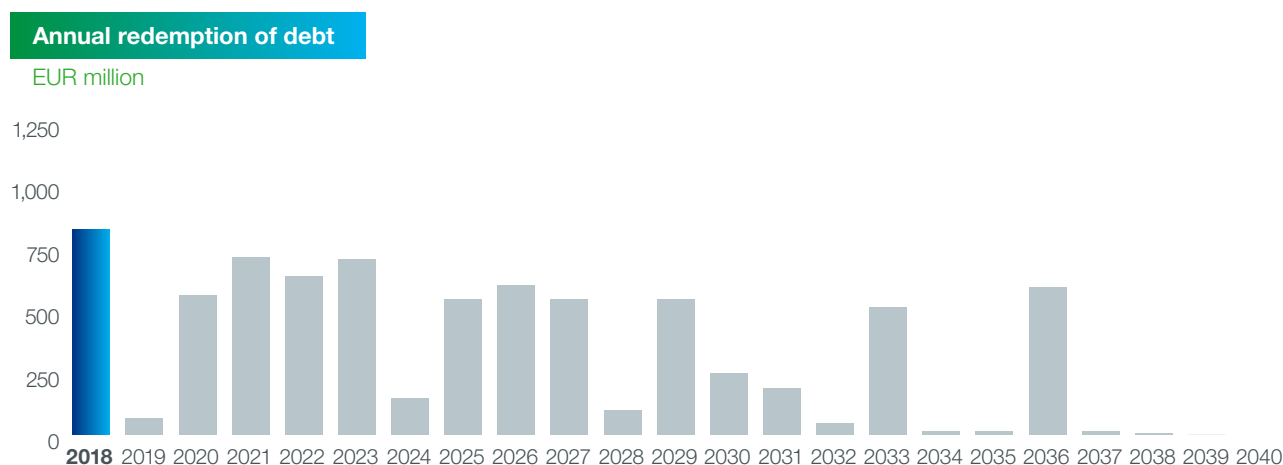
To maintain a solid financial position, we set the FFO/Net debt ratio of at least 8% based on underlying financial information (see note 2), which meet the requirements as formulated by the perspective of credit rating agencies Standard & Poor's and Moody's Investor Service.

A reconciliation of the FFO and net debt is provided in the following table.

Based on underlying information (EUR million)	2017	2016
Profit for the year	531	523
+ amortisation, depreciation and impairments	651	619
+ result on disposal of assets (non-cash)	7	-
Total FFO	1,189	1,142
Net debt		
+ Long term borrowings	6,786	6,335
+ Short term borrowings	917	1,127
+ Bank overdrafts	39	42
- Cash and cash equivalents at free disposal	-55	-157
Total net debt	7,687	7,347
FFO/net debt	15.5%	15.5%

3. Diversify the maturities of long-term funding instruments to limit refinancing risk

To minimise refinancing risk, we aim to have a diversified maturity profile of our senior debt. On 31 December 2017, our interest bearing debt (excluding bank overdrafts) had the following annual redemption profile:



4. Maintain liquidity through cash and undrawn committed credit lines covering at least the Group's cash requirement on a rolling 12-month forward-looking basis

We monitor the liquidity of the Group on a rolling 12-month forward-looking basis. This means that the sum of (i) cash and cash equivalents, (ii) undrawn committed credit facilities and (iii) 12-month net cash flow from operating activities should be sufficient to meet the expected aggregate of scheduled debt repayments, investments in fixed assets and dividend payments over the subsequent 12 months. To support the 12-month liquidity requirement, we have a EUR 2.2 billion revolving credit facility (RCF) and a EUR 350 million committed undrawn EIB facility available. The 12-month liquidity requirement was met on 31 December 2017 and 31 December 2016.

6.2 Equity

6.2.1 Equity attributable to owners of the company

Paid-up and called-up capital

The Company's authorised share capital amounts to EUR 500 million (2016: EUR 500 million), divided into one million shares of EUR 500 each. Of these shares, two hundred thousand shares have been issued and paid-up.

Share premium reserve

The share premium reserve consists of the capital contribution granted by the shareholder of ordinary shares, the Dutch State represented by the Ministry of Finance. In December 2016 the Dutch State formally completed the process to contribute up to EUR 1.2 billion of additional equity over the period 2017-2020 to finance TenneT's Dutch onshore- and offshore investment portfolio. The first tranche of EUR 150 million was received early March 2017. In 2018, TenneT will receive the next tranche of EUR 350 million. The final tranche of EUR 410 million in 2020 is conditional and will only be granted after further consideration of the financial situation of TenneT at that time.

Hedging reserve

The hedging reserve relates to the cumulative result of sold forward-starting interest rate swaps (hereafter referred to as 'FSIRS'), classified as cash flow hedges. The interest rate swaps were sold at the moment Euro Medium Term Notes ('EMTN') were issued in 2010 and 2011. The end term of the original FSIRS is 2020 and 2021. As at 31 December 2017, the 2020 FSIRS amounts to EUR -3 million and for the 2021 FSIRS amounts to EUR 7 million.

Hybrid securities

Hybrid securities are deeply subordinated securities and are, with the exception of common equity, the most junior instruments in the capital structure of the company. The hybrid securities are undated and do not default on non-payment of coupons (unless such payment was mandatory following a resolution or payment of a dividend to common shareholders, i.e. as so called 'dividend pusher'). This means we can avoid payment to hybrid securities owners.

The holders of the hybrid securities have limited ability to influence the outcome of a bankruptcy proceeding or a restructuring outside bankruptcy. Consequently, the hybrid security holders cannot oblige us to pay interest or redeem the securities in part or in full. Payment of interest on and redemption of the loan is at our sole discretion. As a result, the hybrid securities are classified as part of the equity attributable to the company's equity holders.

In April 2017, TenneT issued securities EUR 1 billion of green hybrid securities for the financing of high-voltage connections to offshore wind-farms in Germany. Subsequently, the hybrid securities of EUR 500 million issued in 2010 were redeemed. The net result of these two transactions, was an increase in TenneT's equity of EUR 500 million.

The hybrid securities bear an optional, cumulative coupon of 2.995%, payable at TenneT's discretion annually on 1 June of each year. As at 31 December 2017, the unpaid cumulative dividend amounts to EUR 18 million (2016: EUR 19 million), relating to the period 1 June until 31 December and payable on 1 June 2018.

Dividend distribution

In 2017 a common dividend of EUR 146 million (EUR 730 per share) to our ordinary shareholder was distributed. In agreement with the State of the Netherlands a dividend policy is established with a payout of 35% of the underlying profit for the year. We also paid a distribution to the holders of hybrid securities of EUR 37 million. The income tax benefit resulting from the latter distribution amounted to EUR 9 million.

The appropriation of the 2017 profit is at the free disposal of the General Meeting of Shareholders.

6.2.2 Non-controlling interests

The proportion of economic interests held by non-controlling interests in the Group's subsidiaries is as follows:

(EUR million)	Country	2017	2016
TenneT Offshore 2. Beteiligungsgesellschaft mbH ("TO2")	Germany	69%	69%
TenneT Offshore 8. Beteiligungsgesellschaft mbH ("TO8")	Germany	63%	63%
TenneT Offshore DolWin3 Beteiligungs GmbH & Co. KG ("TOD3")	Germany	61%	62%
TenneT Offshore DolWin3 Verwaltungs GmbH ("TODV")	Germany	67%	67%

The Group has the power to control TO2, TO8, TOD3 and TODV, and holds 51% of the voting rights in these entities.

(EUR million)	TO2	TO8	TOD3
At 1 January 2016	252	289	415
Profit attributable to non-controlling interests	8	32	35
Dividends paid	-2	-35	-
Capital contribution	6	-	-
Capital repayment	-	-	-29
At 31 December 2016	264	286	421
Profit attributable to non-controlling interests	15	23	38
Dividends paid	-18	-25	-
Capital contribution	6	9	-
Capital repayment	-	-	-162
At 31 December 2017	267	293	297

The non-controlling interest in TODV and TOD3 are held by Copenhagen Infrastructure Partners (CIP), which owns a 67% economic interest in the adjusted (for certain regulatory effects) profits of these companies. As a result of the capital repayment of 162 million, the proportion held by CIP in TOD3 decreased in 2017. As the investment in TODV is not material we do not disclose these figures.

The non-controlling interest in TO2 and TO8 are held by Mitsubishi Corporation, which owns aggregate 49% of the voting interest and respectively 69% and 63% of the economic rights.

Financial information of these subsidiaries is summarised below on a consolidated basis before intercompany eliminations and in conformity with our accounting principles.

Statement of financial position (EUR million)	2017		
	TO2	TO8	TOD3
Non-current assets	1,079	1,638	1,483
Current assets	131	105	37
Non-current liabilities	-729	-1,190	-873
Current liabilities	-92	-86	-146
Equity	389	467	501
Attributable to owners of the parent	122	174	204
Attributable to non-controlling interests	267	293	297

Statement of financial position (EUR million)	2016		
	TO2	TO8	TOD3
Non-current assets	1,117	1,648	1,352
Current assets	128	164	96
Non-current liabilities	-763	-1,235	-668
Current liabilities	-99	-123	-92
Equity	383	454	688
Attributable to owners of the parent	119	168	267
Attributable to non-controlling interests	264	286	421



Statement of income (EUR million)	2017		
	TO2	TO8	TOD3
Revenue	182	249	132
Depreciation and amortisation	-79	-98	-
Other expenses	-45	-59	-2
Operating profit	58	92	130
Finance income and expenses	-25	-40	-18
Income tax expense	-11	-17	-14
Profit for the year	22	35	98
Other comprehensive income	-	-	-
Total comprehensive income	22	35	98
Attributable to non-controlling interests	15	23	38
Dividends paid to non-controlling interests	-	25	-

Statement of income (EUR million)	2016		
	TO2	TO8	TOD3
Revenue	177	248	118
Depreciation and amortisation	-76	-86	-
Other costs	-57	-50	-3
Operating profit	44	112	115
Finance income and expenses	-26	-39	-13
Income tax expense	-7	-23	-12
Profit for the year	11	50	90
Other comprehensive income	-	-	-
Total comprehensive income	11	50	90
Attributable to non-controlling interests	8	32	35
Dividends paid to non-controlling interests	2	35	-

(EUR million)	2017		
	TO2	TO8	TOD3
Net cash flows from operating activities	99	91	109
Net cash flows used in investing activities	-38	-83	-133
Net cash flows from financing activities	-61	-8	24
Change in cash and cash equivalents	-	-	-

(EUR million)	2016		
	TO2	TO8	TOD3
Net cash flows from operating activities	96	227	-39
Net cash flows used in investing activities	-79	-186	-363
Net cash flows from financing activities	-17	-41	402
Change in cash and cash equivalents	-	-	-



6.3 Borrowings

(EUR million)	Effective interest rate	Maturity	Redemption schedule	2017	2016
0.75% green bond 2017 EUR 500 million	0.9%	Jun-25	At maturity	496	-
1.375% green bond 2017 EUR 500 million	1.4%	Jun-29	At maturity	498	-
1.000% green bond 2016 EUR 500 million	1.1%	Jun-26	At maturity	498	498
1.875% green bond 2016 EUR 500 million	2.0%	Jun-36	At maturity	491	491
1.250% green bond 2016 EUR 500 million	1.4%	Oct-33	At maturity	492	492
1.75% green bond 2015 EUR 500 million	1.8%	Jun-27	At maturity	497	496
0.875% green bond 2015 EUR 500 million	1.0%	Jun-21	At maturity	499	498
3.88% bond 2011 EUR 500 million	3.0%	Feb-18	At maturity	-	505
2.13% bond 2013 EUR 500 million	2.2%	Nov-20	At maturity	499	498
4.50% bond 2010 EUR 500 million	4.6%	Feb-22	At maturity	496	497
4.63% bond 2011 EUR 500 million	4.7%	Feb-23	At maturity	499	498
4.75% bond 2010 EUR 200 million	4.9%	Jun-30	At maturity	196	195
Non-current interest-bearing bonds				5,161	4,668
0.813% loan 2016 EUR 125 million	0.8%	2019-2038	Linear	125	125
2.74% loan 2012 EUR 150 million	2.7%	Sep-23	At maturity	150	150
4.12% loan 2010 EUR 150 million	4.1%	Jan-21	At maturity	150	150
0.72% loan 2015 EUR 500 million	0.7%	2018-2032	Linear	483	500
0.77% loan 2015 EUR 150 million	0.8%	2018-2037	Linear	142	150
4.44% loan 2010 EUR 140 million	4.4%	2016-2023	Linear	54	65
4.71% loan 2010 EUR 40 million	4.7%	2016-2022	Linear	12	15
4.40% loan 2010 EUR 40 million	4.4%	2016-2021	Linear	10	13
Non-current interest-bearing loans				1,126	1,168
0.646% green Schuldschein 2016 EUR 77 million	0.7%	May-22	At maturity	77	77
0.989% green Schuldschein 2016 EUR 100 million	1.0%	May-24	At maturity	100	100
1.310% green Schuldschein 2016 EUR 55 million	1.3%	May-26	At maturity	55	55
1.500% green Schuldschein 2016 EUR 50 million	1.5%	May-28	At maturity	50	50
1.750% green Schuldschein 2016 EUR 43 million	1.8%	May-31	At maturity	42	42
1.750% green Schuldschein 2016 EUR 95 million	1.8%	May-31	At maturity	95	95
2.000% green Schuldschein 2016 EUR 80 million	2.0%	May-36	At maturity	80	80
Non-current interest-bearing Schuldschein				499	499
Total non-current interest-bearing borrowings				6,786	6,335
3.88% bond 2011 EUR 500 million	3.0%	Feb-18	At maturity	500	-
Current interest-bearing bonds				500	-
Cash loans	0.0%	Jan-18	At maturity	110	25
EUR commercial papers	-0.3%	Mar-18	At maturity	265	1,085
0.72% loan 2015 EUR 500 million	0.7%	Sep-18	Linear	18	-
0.77% loan 2015 EUR 150 million	0.8%	Jan-18	Linear	7	-
4.44% loan 2010 EUR 140 million	4.4%	Nov-18	Linear	11	11
4.71% loan 2010 EUR 40 million	4.7%	Nov-18	Linear	3	3
4.40% loan 2010 EUR 40 million	4.4%	Nov-18	Linear	3	3
Current interest-bearing loans				417	1,127
Total current interest-bearing borrowings				917	1,127
Total borrowings				7,703	7,462



Changes in our borrowings arising from our financing activities are as follows:

(EUR million)	Non-current interest-bearing bonds	Non-current interest-bearing loans	Non-current interest-bearing Schuldchein	Total
At 1 January 2016	3,189	1,455	-	4,644
Cash inflow from new borrowings	1,479	1,235	499	3,213
Cash outflow from redemptions	-	-395	-	-395
Amortisation (non-cash)	-	-	-	-
At 31 December 2016	4,668	2,295	499	7,462
Cash inflow from new borrowings	995	375	-	1,370
Cash outflow from redemptions	-	-1,127	-	-1,127
Amortisation (non-cash)	-2	-	-	-2
At 31 December 2017	5,661	1,543	499	7,703

A group of banks has provided TenneT a Revolving Credit Facility (RCF) of EUR 2.2 billion. Besides the Group received a loan facility of EUR 350 million from the European Investment bank (EIB) related to the NordLink project. The agreement was signed on 3 April 2017, which at year end 2017 was undrawn.

For more information about the fair value and applicable accounting policy, see note 6.5 and 6.6, respectively.

6.4 Cash, cash equivalents and bank overdrafts

Cash and cash equivalents consist of collateral securities, short-term bank deposits and cash at bank (excluding bank overdrafts) and can be broken down as follows:

(EUR million)	2017			2016		
	At free disposal	Not at free disposal	Total	At free disposal	Not at free disposal	Total
Collateral securities	-	61	61	-	66	66
EEG funds	-	1,213	1,213	-	981	981
Cash at bank	55	-	55	157	4	161
Cash and cash equivalents	55	1,274	1,329	157	1,051	1,208
Bank overdrafts	-39	-	-39	-42	-	-42
Total cash and cash equivalents used in cash flow statement	16	1,274	1,290	115	1,051	1,166

As of 2016, funds related to EEG have been legally separated on the request of the BNetzA. For further reference regarding EEG we refer to note 5.5.1.

Cash at banks carry interest at floating rates based on daily bank deposit rates.

① Accounting policy

In the consolidated statement of cash flows, cash and cash equivalents include cash at bank, deposits held at call with banks, other short-term highly liquid investments with remaining maturities of three months or less and are presented net of outstanding bank overdrafts. Securities are deposits on collaterals that serve as financial security for auction and energy exchange transactions. A matching debt is recognised to the party that deposited the funds on the collateral. Securities are initially stated at fair value and consequently at amortised cost.

6.5 Fair values

The table below provides an overview of the carrying value and fair value of financial instruments, including IFRS treatment. The table also shows at what level in the valuation hierarchy the Group's financial instruments are measured at fair value.

(EUR million)	Notes	Carrying amount		Fair value		Hierarchy
		2017	2016	2017	2016	
Financial liabilities						
<i>Borrowings:</i>						
- Borrowings – bonds	6.3	5,661	4,668	6,064	5,124	Level 1
- Borrowings – other	6.3	2,042	2,794	2,087	2,846	Level 2
Total		7,703	7,462	8,151	7,970	

As at 31 December 2017 no instruments carried at fair value were held. Furthermore, we concluded that the fair value of the loans and receivables, cash and cash equivalents, account- and other payables, and other financial liabilities approximate their carrying amounts at year end 2017, due to the short-term maturities of these instruments.

The following hierarchy by valuation technique is used in calculating the fair value of assets and liabilities:

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

The fair value of the level 2 borrowings is based on discounted cash flows. A change in the assumptions used to calculate the fair value will not result in a significantly different outcome. There have been no transfers between the fair value hierarchy levels.

6.6 Accounting policies for financial instruments

The initial measurement of financial instruments is at fair value on the settlement date, generally at the transaction price that has taken into account the directly attributable transaction costs.

- Loans and receivables are accounted for at amortised cost. Loans are classified as borrowings and other liabilities.
- Financial assets held for trading at fair value through profit or loss.
- Available For Sale financial assets (AFS)

Measurement and classification

The subsequent measurement of the material financial instruments and their classification is outlined below.

For all financial instruments measured at amortised cost and interest bearing financial assets classified as available for sale, interest income is recorded using the effective interest rate (EIR) method. The EIR amortisation is included in finance income in the statement of profit or loss. The losses arising from impairment are recognised in the statement of profit or loss in finance costs.

Loans and receivables

This category is the most relevant to the Group. Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market and are measured at amortised costs using the EIR, less impairment as referenced above. The EIR amortisation is included in finance income in the statement of profit or loss.

The losses arising from impairment are recognised in the statement of profit or loss in finance costs.

Financial instruments at fair value through profit or loss

Financial instruments are included in the balance sheet when the Group becomes party to the instrument's contractual terms. Financial instruments are derecognised from the balance sheet when the contractual rights or obligations have been fulfilled, cancelled or transferred, or they have expired. When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as the derecognition of the original liability and the recognition of a new liability. The difference in the respective carrying amounts is recognised in the statement of income. Financial instruments are classified as long-term when they are expected to be realised more than 12 months after the balance sheet date. Otherwise, financial instruments are classified as short-term.

AFS financial assets

Available For Sale (AFS) financial assets include equity investments and debt securities. After initial recognition they are subsequently measured at fair value with unrealised gains or losses recognised in OCI and credited to the AFS reserve until the investment is derecognised, at which time, the cumulative gain or loss is recognised in other operating income.

Hedge accounting

We have applied cash flow hedge accounting on "Financial Systems Interface and Requirements Staff" (FSIRS) derivatives used as pre-hedges for the EMTN programme. Changes in the fair value of the swaps forming part of an effective hedge have been recognised in the statement of comprehensive income (hedge reserve). The hedge reserve in equity is amortised over the period in which the original hedged item is expected to affect profit or loss.

6.7 Financial risk management

Our business activities are exposed to various financial risks such as interest rate risk, credit risk, liquidity risk and refinancing risk, which are described in detail in this note. Our financial risk management strategy primarily focuses on protecting the liquidity, equity capital and net result in order to safeguard our ability to continue active operations while providing an adequate return to our shareholders. Our approach to managing financial risks, including a number of specific disclosures (such as a maturity analysis of contractual undiscounted financial obligations) required by accounting standards, are set out in this note. For details about regulatory risk we refer to the 'Risk Management' section of our Executive Board report.

Risk management related to financing activities is conducted by our Treasury department under policies approved by our Executive Board. Our financial risk management objectives, policies and processes were unchanged in 2017 compared to 2016. The Treasury department's objective is to facilitate the realisation of our financial and strategic objectives from a funding and financial risk perspective. Our Executive Board and Audit, Risk and Compliance Committee approved an update of the Treasury Statute in 2017. The Treasury Statute includes principles covering specific areas such as interest rate risk, liquidity risk, the use of derivatives, and the investment of excess liquidity. The use of all ordinary course financial instruments is permitted, provided these are used solely to cover open positions. Any speculative use of financial instruments is expressly not authorised. Our Executive Board has also approved specific risk management solutions such as the issuance of new debt capital market instruments.

Interest rate risk

We are exposed to interest rate risk on our revenue and on our debt portfolio. To manage the interest rate risk, our policy is to ensure that the majority of our loan portfolio is based on a fixed interest rate. At present, the long-term loan portfolio is wholly based on fixed interest rates, consequently the associated interest rate risk is limited. An increase or decrease in interest rates of 2 percentage points would create an increase or decrease of EUR 8 million in our net interest cost (2016: EUR 20 million) resulting from short-term loans.

Furthermore, there is a risk that interest payable on liabilities exceeds compensation interest receivable by TenneT under the prevailing regulatory systems. The ACM has set the relevant interest rate which will linearly decrease from 3.58% in 2016 to 2.29% in 2021. In Germany, actual interest costs are compensated up to a predefined maximum on a rolling average basis.

Credit risk

In general we are exposed to the risk of loss resulting from counterparties' defaulting on their commitments including failure to pay or make a delivery on a contract. Our exposure to credit risk from operating activities and treasury activities is inherent to our business activities.

Operational credit risk

In respect of our operating activities, we have a credit policy in place, which takes into account the risk profiles of our counterparties. We also have policies in place to monitor the financial viability of counterparties.

In both the Netherlands and Germany, we are responsible for maintaining the balance between supply and demand of energy. The associated costs are covered by income from parties with balance responsibility, which are charged for any imbalances attributable to them. Any surplus is deducted from subsequent tariffs for system services. For certain situations, securities in the form of bank guarantees and collaterals are held as protection against the default risk of parties with balance responsibility.

With respect to the investment projects, we ask counterparties to deliver bank guarantees or collaterals as a protection against defaults.

The management of energy exchanges, the execution of the Renewable Energy Act in Germany and the maintenance of the energy balance between supply and demand requires handling of large cash flows. Our policies are aimed at minimising the risks associated with the clearing transactions in connection with these cash flows.

Our risk on trade receivables is very limited, as any losses are expected to qualify for compensation in future tariffs. Furthermore, TenneT bears no credit risk on EEG receivables, since all costs are (including related credit losses) covered via the EEG reimbursement mechanism (see also note 5.5.1).

Financial credit risk

In 2017, financial credit risk arose mainly from our transactions and positions with 50 institutions. As at 31 December 2017, the maximum credit risk amounted to EUR 55 million (2016: EUR 157 million). Funds related to EEG are no longer at our free disposal and are legally separated from our cash at bank. In accordance with EEG legislation, shortfalls are reimbursed in the subsequent year's EEG levy. As a result, there is no credit risk on the side of TenneT TSO GmbH regarding the EEG funds and therefore not included in the aforementioned credit risk amount.

In accordance with our treasury policies, counterparty credit exposure is monitored frequently against the counterparty credit limits. We have concentration limits in place when funds are placed on deposit or when financial derivatives are entered into. At 31 December 2017 we did not have any deposits with third parties (2016: nil) and no financial derivatives outstanding.

Management does not expect any significant losses from non-performance by treasury counterparties.

Liquidity risk

Liquidity risk is defined as the risk that the Group cannot meet its short-term financial obligations. Our objective when managing liquidity is to be able to meet our short-term obligations at all times. Liquidity is monitored every month on a rolling 12-month forward-looking basis. The liquidity requirement was met at 31 December 2017 and 31 December 2016, quarterly and at all times between as explained in note 6.1.

The following maturity schedule presents our financial obligations on a contractual, non-discounted basis:

(EUR million)	Notes	<1 month	1 to 3 months	3 to 12 months	1 to 5 years	More than 5 years	Total
At 31 December 2017							
Borrowings	6.3	113	832	128	2,489	5,348	8,910
Account- and other payables	5.6	2,209	587	1,461	-	-	4,257
Other financial liabilities		61	-	-	-	-	61
Total		2,383	1,419	1,589	2,489	5,348	13,228
At 31 December 2016							
Borrowings	6.3	468	594	212	2,394	5,029	8,697
Account- and other payables	5.6	1,763	454	1,358	-	-	3,575
Other financial liabilities		66	-	-	-	-	66
Total		2,297	1,048	1,570	2,394	5,029	12,338

Our borrowings, have a diversified maturity profile, which reduces any refinancing risks (see also note 6.1).

In order to minimise our exposure to liquidity risk, we have a EUR 2.2 billion committed revolving credit facility (RCF) at our disposal for general corporate purposes. At 31 December 2017, this facility was undrawn. Furthermore, we had EUR 350 million of undrawn long-term loan commitments from the EIB available at 31 December 2017. Finally, we had EUR 450 million of short-term uncommitted credit facilities available at year end. At the balance sheet date, EUR 39 million (2016: EUR 42 million) were drawn from these facilities.

The size of our credit facilities is such that we expect that all substantial adverse financial developments and events can reasonably be expected to be accommodated and that continuation of day-to-day operations is ensured for at least 12 months. The terms and conditions of our credit facilities include negative pledge and pari passu clauses. No security interest over any of the Group's assets has been provided. All credit facilities have floating-rate interest conditions.

We also have access to diversified funding sources through our EUR 8 billion EMTN programme and our EUR 2.2 billion CP programme. Both programmes significantly reduce our dependency on the banking sector.

We expect to meet our financial obligations for 2018 with (i) cash and cash equivalents, (ii) funds from operations (iii) unused credit facilities, (iv) capital contribution from the Dutch State and (v) capital market transactions. We expect to meet our financial obligations for the subsequent years through various capital market transactions and intend to manage future refinancing risks by spreading the tenors of new financing arrangements. Furthermore, we plan to increase our equity capital in the short to medium-term.

Refinancing risk

There is a risk of a lack of access to equity on a sustainable basis. This risk reflects the inability to raise additional equity in a timely fashion in case of large increases in our investment portfolio or negative regulatory developments. Actions taken in order to mitigate this risk are: (i) active financing strategy to create and maintain an optimal capital structure as well as to diversify funding sources and manage financial risks, (ii) proactive approach of potential investors / active discussion with shareholder to contribute additional equity and (iii) lobbying activities to ensure that regulatory frameworks remain adequate to safeguard regulators income and returns to investors.

To address this risk, TenneT's shareholder the Dutch State, made available EUR 1.2 billion of additional equity over the period 2017-2020 to enable the financing of future investments in the Dutch grid (see note 6.2.1).

7. Other disclosures

Other mandatory disclosures, such as details of pension liabilities and related party transactions, which are not directly related to our business are described in this note.

7.1 Net employee defined benefit liabilities

7.1.1 Pension plans Germany

We have defined benefit plans for the majority of our German personnel. Said personnel are mainly employed based on the collective labour agreement of 'Tarifgruppe Energie' and thus enjoys benefits in the form of old-age, disability and surviving dependents' pensions. The large majority of the benefit obligations are based on pension schemes that define annual pension modules based on respective employee's pensionable income of the particular year. Furthermore, each employee is allowed to defer a certain amount compensation to raise the annual pension module within defined bounds.

The Group contributes to two post-employment defined benefit plans in Germany, namely a works council agreement called 'Betriebliche Alterssicherung' (hereafter referred to as 'pension scheme 2001') and a works council agreement called 'Beitragsplan' (hereafter referred to as 'pension scheme 2008'), as well as to a small number of individual pension commitments. The pension obligations related to these plans are partly covered by assets: primarily a Contractual Trust Arrangement (CTA) administrated by 'Helaba Pension Trust e.V.' (Helaba) and assets held by 'Versorgungskasse Energie VVaG' (VKE). According to German law, TenneT remains ultimately liable for fulfilling these pension obligations.

Until December 31, 2017 the plan assets held by VKE, were part of a reinsurance contract. Based on the partners' decision to liquidate VKE these reinsurance contracts will be terminated and the underlying funds will be transferred into an additional CTA during 2018. Based on this we concluded that the claims from the liquidation of VKE still qualify as plan assets.

Pension scheme 2001

This scheme covers employees who started working on or before 31 December 2007 (or later, if the individual employment contract was agreed on or before 1 April 2008). The scheme became effective on 1 January 2001 and absorbed older plans. As part of the transition in 2001 to the new plan, employees were guaranteed a vested pension module based on the old plan for their years of service prior to the transition. The plan offers benefits in the form of old-age, disability and surviving dependents' pensions, and is composed of the employer-funded basic level based on the respective employee's yearly pensionable income, the employer-funded top-up level based on the respective company's performance, and the employee-funded supplementary level which allows employees to increase their pension entitlement through deferred compensation. Yearly fixed pension modules are calculated with a fixed internal interest rate that sum up to the total earned pension benefits of the respective employee.

Pension scheme 2008

This scheme covers employees who started working after 31 December 2007 (unless the individual employment contract was agreed before 1 April 2008, for which the pension scheme 2001 applies). This scheme offers benefits in the form of old-age, disability and surviving dependents' pensions.

Pension cost is composed of the employer-funded basic level based on the respective employee's yearly pensionable income, the employer funded top-up level based on the respective company's performance and the employee-funded supplementary level which allows employees to increase their pension entitlement through deferred compensation. If the employee contribution to the supplementary level reaches a certain level, the company pays an additional contribution of one-third of the respective basic level contribution.

Annually, yearly fixed pension modules are calculated with an interest rate that is recalculated based on the weighted average current yield of German Federal Government Bonds (Bundesanleihen) with different maturities (10, 20 and 30 years) reflecting the average duration of the plan. The pension modules sum up to the total earned pension benefits of the respective employee.



Differences between the plans are limited and refer mainly to the way internal interest rates and the pensionable income are determined. Therefore disclosure in the notes below is based on weighted averages.

Components of the net benefit expense recognised in the statement of income are as follows:

(EUR million)	2017	2016
Current service costs (note 3.2.2)	11	10
Net interest costs (note 3.3)	3	3
Net benefit expense	14	13

The funded status of the plans and the amounts recognised in the statement of financial position are as follows:

(EUR million)	2017	2016
Defined benefit obligation	281	267
Fair value of plan assets	-95	-88
Benefit liability	186	179

Changes in the present value of the defined benefit obligation ('DBO') over the year are as follows:

(EUR million)	2017	2016
Defined benefit obligation at 1 January	267	214
Current service costs	11	10
Interest costs	4	5
Benefits paid	-3	-2
Re-measurements on obligation	2	40
Defined benefit obligation at 31 December	281	267

Changes in the fair value of plan assets of the year are as follows:

(EUR million)	2017	2016
Fair value of plan assets at 1 January	88	84
Actual return on plan assets	5	2
Contributions by employer	2	2
Benefits paid	-	-
Fair value of plan assets at 31 December	95	88

Major categories of plan assets as a percentage of the fair value of the total plan assets are as follows:

	2017	2016
Quoted in active markets:		
Equity instruments	20%	26%
Debt securities	32%	57%
Investment funds	0%	3%
Other	3%	3%
Unquoted investments:		
Equities	3%	2%
Debt securities	0%	1%
Real estate	0%	4%
Cash	42%	4%

Re-measurements, including the actuarial gains and losses arising from experience adjustments and changes in the actuarial assumptions, recognised in the statement of comprehensive income are as follows:

(EUR million)	2017	2016
Accumulated balance at 1 January	129	89
Re-measurements during the year	-3	40
Accumulated balance at 31 December	126	129

Re-measurements are related entirely to the actuarial changes resulting from financial assumptions.

① Accounting policy

For defined benefit plans, pension costs are determined using the projected unit credit method. Re-measurements, comprising of actuarial gains and losses, the effect of the asset ceiling (excluding net interest) and the return on plan assets (excluding net interest), are recognised in other comprehensive income in the period in which they occur. Re-measurements are not reclassified to profit or loss in subsequent periods.

Service costs comprising current service costs and, if applicable, past-service costs, gains and losses on curtailments and non-routine settlements are recognised as personnel expenses in the consolidated statement of income. Interest is calculated by applying the discount rate to the net defined benefit liability or asset and is recognised as part of the finance result in the statement of income.

Prepaid pension costs relating to defined benefit plans are capitalised only if they lead to refunds to the employer or to reductions in future contributions to the plan by the employer.

Key estimates and assumptions

Pension obligations and pension entitlements that are known on the reporting date are valued using economic trend assumptions including, among others, salary growth rates and pension increase rates, that are intended to reflect realistic expectations, as well as variables specific to reporting dates such as discount rates. The principal assumptions used in determining the pension obligation were as follows:

	2017	2016
Discount rate	1.95%	1.80%
Inflation rate	2.00%	2.00%
Future salary increases	2.50%	2.50%
Future pension increases	1.75%	1.75%

Assumptions regarding future mortality experience are set based on actuarial advice in accordance with published statistics and actuarial experience. A change in the main assumptions would have had the followings effects:

(EUR million)	Effect DBO
0.25% change of discount rate	15
0.5% change of salary increase rate	2
0.5% change of pension increase rate	4
10% change in mortality rate	9

The sensitivities indicated are computed based on the same methods and assumptions used to determine the present value of the defined benefit obligations and are based on variations in a single variable only. Note that the sensitivity analyses may not be representative of an actual change in the defined benefit obligation, as it is unlikely that changes in assumptions would occur in isolation.

We expect to contribute EUR 3 million to our defined benefit pension plans in 2018 and expect the following, undiscounted, benefit payments from the plan:

(EUR million)	2017	2016
Within the next 12 months	3	3
Within 2-5 years	20	17
Within 5-10 years	34	31
More than 10 years	386	627
Total	443	678

7.1.2 Pension plan the Netherlands

For the majority of our Dutch personnel we have a multi-employer scheme, which is administered by the ABP Pension Fund (ABP) in the Netherlands. The pension contribution rate for 2017 was 21.1% of the pensionable salary. In 2018 we expect to contribute EUR 14 million to the multi-employer scheme administered by the ABP. Compared to the total participants in the ABP pension fund, our share in ABP is very limited. We are not liable for deficits in the multi-employer plan, but may be required to pay higher contributions (i.e. surcharge to the contribution rate) to the scheme like other participants.

ABP has indicated that it is unable to provide the kind of company-specific information required by IFRS for defined-benefit pension schemes. As such, this scheme is treated as if it were a defined contribution scheme.

Since the financial situation of the ABP pension plan at 31 December 2015 was not adequate, ABP filed a recovery plan, which was approved by De Nederlandsche Bank (DNB) during the course of 2016. In accordance with this recovery plan, ABP evaluates how recovery is progressing at the start of each year. Progress is measured by means of the policy funding ratio at the end of the preceding year. The policy funding ratio is the 12-month moving average of the nominal funding ratio. ABP's policy funding ratio as at 31 December 2017 was 104.4% (2016: 91.7%) and that is above the critical coverage rate level under which pensions would have to be reduced.

① Accounting policy

Payments to defined contribution plans are charged as an expense in the period to which they relate.

7.2 Other commitments and contingencies

(EUR million)	2017	2016
Grid-related commitments	1,382	1,042
Guarantees issued	2,799	2,743
Other off-balance sheet commitments	628	15
Total off-balance sheet obligations	4,809	3,800
Off-balance sheet rights		
Government guarantees received	300	300
Other off-balance sheet rights	124	85
Total off-balance sheet rights	424	385

7.2.1 Grid related commitments

Grid-related commitments include unused auction receipts in the Netherlands amounting to EUR 646 million (2016: EUR 775 million). We sell cross-border transport capacity through auctions. In the Netherlands, the cash received in this respect is restricted. As described in [note 4.3.4](#) the grid related commitments related to the German powerplants are reclassified to operational lease commitments.

7.2.2 Guarantees issued

Guarantees issued increased mainly due to an increased upstream guarantee from TOH 5, resulting from an increased asset base of TOH5.

7.2.3 Government guarantees received

TenneT holds a guarantee issued by the Dutch State for an amount of EUR 300 million expiring in 2020, relating to its (indirect) investment in TenneT TSO GmbH.

7.2.4 Other

Other off-balance sheet rights mainly comprise of TenneT's commitment to provide the NOKA joint venture with sufficient funds for the construction of the Southern Part of the Nordlink cable. Also there are various other off-balance sheet commitments and contingencies as well as other off-balance sheet rights which are not large enough to warrant separate disclosure.

Due to the nature of our business we received certain claims from our counterparties, which we believe are unlikely to prevail in court, although inherent uncertainty exists about the outcome in court. Therefore no provision has been accounted for. The majority of these claims relate to (i) construction contracts where additional payments would be capitalised, or (ii) claims relating to compensation for delays and interruptions where any compensation would be pass-through for TenneT or (iii) claims relating to refunds of transmission services, which would be compensated in future tariffs. All in all, in the unlikely event that these claims would be granted, this could have a material impact on the company's financials.

7.3 Related parties

Note 7.4 provides an overview of legal entities included in the consolidated financial statements.

Other material related parties are:

- State of the Netherlands: TenneT Holding B.V. is controlled by the Dutch State, which owns 100% of the Company's ordinary shares;
- Open Tower Company B.V.: OTC is deemed related since it is an indirect 25% participation of TenneT Holding B.V.;
- Mobile Radio Networks Vehicle B.V.: MRNV is deemed a related party because it is an indirect participation of TenneT Holding B.V. Two loans were issued to MRNV.

Legal entities that share key management personnel

Mr Kroon is a member of the Supervisory Board of the Port of Rotterdam. We have a ground lease agreement with the Port of Rotterdam. Mr Kroon was not involved in the negotiations or in the decision-making process regarding this lease agreement. In the course of 2017 Mr. Kroon's membership of the Supervisory Board of the Port of Rotterdam ended.

Ms Hottenhuis is a member of the Executive Board of ARCADIS N.V. ARCADIS is one of our suppliers. Ms Hottenhuis has not been involved in any commercial dealings between ARCADIS and TenneT. Contract reviews, negotiations or awards between the two companies were conducted at the appropriate business levels and in the ordinary course of business.

Mr. Fischer is Chief Executive Officer and a member of the Board of Tata Steel Europe. Tata Steel is one of our customers. Mr. Fischer has not been involved in any business dealings between Tata Steel and TenneT. Contract reviews, negotiations or awards between the two companies were conducted at the appropriate business levels and in the ordinary course of business. In the course of 2017 Mr. Fischer's membership of the Supervisory Board ended. Further reference is made to the Supervisory Board report.

Mr Veenman was a member of the Supervisory Board Prysmian Holding Netherlands N.V. Prysmian is one of TenneT's suppliers. Mr Veenman has not been involved in any business dealings between Prysmian and TenneT. Contract reviews, negotiations or awards between the two companies were conducted at the appropriate business levels and in the ordinary course of business. In the course of 2017 Mr. Veenman's membership of the Supervisory Board Prysmian Holding Netherlands N.V. ended.

The Port of Rotterdam, ARCADIS and Prysmian Holding Netherlands N.V are not considered related parties.

7.4 Consolidated subsidiaries

The following legal entities are included in the consolidation of TenneT Holding B.V.:

Subsidiary	Legal seat	Country	Voting interest		Economic interest		
			2017	2016	2017	2016	
B.V. Transportnet Zuid-Holland	Voorburg	Netherlands	100%	100%	100%	100%	*
CertiQ B.V.	Arnhem	Netherlands	100%	100%	100%	100%	
Duvekot Rentmeesters B.V.	Bathmen	Netherlands	100%	100%	100%	100%	
HS Netten Zeeland B.V.	Middelburg	Netherlands	N/A	100%	N/A	100%	***
Nadine Netwerk B.V.	Arnhem	Netherlands	100%	100%	100%	100%	*
NLink International B.V.	Arnhem	Netherlands	100%	100%	100%	100%	*
NOVEC B.V.	The Hague	Netherlands	100%	100%	100%	100%	
Omroepmasten B.V.	Vianen	Netherlands	100%	100%	100%	100%	
Saranne B.V.	Arnhem	Netherlands	100%	100%	100%	100%	*
Stichting Beheer Doelgelden Landelijk Hoogspanning-snet	Arnhem	Netherlands	N/A	N/A	N/A	N/A	
TenneT Duitsland Coöperatief U.A.	Arnhem	Netherlands	100%	100%	100%	100%	*
TenneT Green B.V.	Arnhem	Netherlands	100%	100%	100%	100%	*
TenneT Orange B.V.	Arnhem	Netherlands	100%	100%	100%	100%	
TenneT TSO B.V.	Arnhem	Netherlands	100%	100%	100%	100%	
TenneT TSO Duitsland B.V.	Arnhem	Netherlands	100%	100%	100%	100%	*
TenneT TSO E B.V.	Arnhem	Netherlands	N/A	100%	N/A	100%	***
TransTenneT B.V.	Arnhem	Netherlands	100%	100%	100%	100%	*
WL Winet B.V.	Maasdijk	Netherlands	100%	100%	100%	100%	
Relined B.V.	Utrecht	Netherlands	100%	50%	100%	50%	
Relined GmbH	Emsbüren	Germany	100%	-	100%	-	
DC Netz BorWin3 GmbH	Bayreuth	Germany	100%	100%	100%	100%	
DC Netz BorWin4 GmbH	Bayreuth	Germany	N/A	100%	N/A	100%	***
DC Netz DolWin4 GmbH	Bayreuth	Germany	100%	100%	100%	100%	
DC Netz GmbH	Bayreuth	Germany	100%	100%	100%	100%	
DC Netz HelWin1 GmbH	Bayreuth	Germany	100%	100%	100%	100%	
DC Netz SylWin2 GmbH	Bayreuth	Germany	100%	100%	100%	100%	
NOVEC GmbH	Emsbüren	Germany	100%	100%	100%	100%	
TenneT GmbH & Co. KG	Bayreuth	Germany	100%	100%	100%	100%	**
TenneT Offshore 1. Beteiligungsgesellschaft mbH	Bayreuth	Germany	51%	51%	31%	31%	
TenneT Offshore 2. Beteiligungsgesellschaft mbH	Bayreuth	Germany	51%	51%	31%	31%	
TenneT Offshore 4. Beteiligungsgesellschaft mbH	Bayreuth	Germany	100%	100%	100%	100%	
TenneT Offshore 7. Beteiligungsgesellschaft mbH	Bayreuth	Germany	100%	100%	100%	100%	
TenneT Offshore 8. Beteiligungsgesellschaft mbH	Bayreuth	Germany	51%	51%	37%	37%	
TenneT Offshore 9. Beteiligungsgesellschaft mbH	Bayreuth	Germany	51%	51%	37%	37%	
TenneT Offshore Dolwin3 Beteiligungs GmbH & Co. KG	Bayreuth	Germany	51%	51%	39%	38%	**
TenneT Offshore Dolwin3 GmbH & Co. KG	Bayreuth	Germany	51%	51%	39%	38%	**
TenneT Offshore Dolwin3 Verwaltungs GmbH	Bayreuth	Germany	51%	51%	33%	33%	
TenneT Offshore GmbH	Bayreuth	Germany	100%	100%	100%	100%	
TenneT TSO GmbH	Bayreuth	Germany	100%	100%	100%	100%	
TenneT Verwaltungs GmbH	Bayreuth	Germany	100%	100%	100%	100%	
WL Winet GmbH	Emsbüren	Germany	100%	100%	100%	100%	

* For these companies TenneT has issued a declaration of liability as referred to in Book 2, Part 9, Section 403 of the Netherlands Civil Code.

** This company, which has been consolidated in these financial statements, has opted for the exemption of Section 264b of the German Commercial Code.

*** These entities merged with group entities during 2017



The consolidation includes a foundation called Stichting Beheer Doelgeden Landelijk Hoogspanningsnet. This foundation temporarily manages funds arising from the maintenance of the energy balance and auctioning of cross-border capacity by TenneT TSO B.V. We can exercise direct control over its management and financial and operational policies, consequently the foundation is included in the consolidation of the Group.

7.5 Events after the reporting period

No significant events after the reporting period have occurred.

Company financial statements

Company statement of income

For the year ended 31 December (EUR million)

(EUR million)	Notes	2017	2016
Revenue		-	-
Other operating expenses		-4	-3
Other gains/(losses)		3	-
Total operating expenses		-1	-3
Share in profit of joint ventures and associates		3	3
Operating profit		2	-
Finance income	8.2	171	167
Finance expenses	8.3	-171	-149
Finance result		-	18
Profit before income tax		2	18
Income tax expense		-22	-34
Profit from subsidiaries	8.4	497	183
Profit for the year		477	167



Company statement of financial position

For the year ended 31 December (EUR million)

Assets	Notes	2017	2016
Non-current assets			
Investments in subsidiaries	8.4	6,296	5,841
Investments in joint ventures and associates	8.5	35	36
Other financial assets	8.6	6,050	6,200
Total non-current assets		12,381	12,077
Current assets			
Other financial assets	8.6	1,692	801
Account- and other receivables		-	-
Cash and cash equivalents		51	154
Total current assets		1,743	955
Total assets		14,124	13,032

Equity and liabilities	Notes	2017	2016
Equity	8.7		
Paid up and called-up capital		100	100
Share premium		1,380	1,380
Revaluation reserve		54	65
Reserve for participating interests		8	5
Hedging reserve		4	5
Retained earnings		1,725	1,721
Unappropriated result		442	134
Equity attributable to ordinary shares		3,713	3,410
Hybrid securities		1,018	520
Equity attributable to owners of the company		4,731	3,930
Non-current liabilities			
Borrowings	8.8	6,786	6,335
Payables to group companies		280	630
Deferred tax liability		4	5
Total non-current liabilities		7,070	6,970
Current liabilities			
Borrowings	8.8	917	1,127
Account- and other payables	8.9	1,367	963
Bank overdrafts		39	42
Total current liabilities		2,323	2,132
Total equity and liabilities		14,124	13,032



Notes to the company financial statements

These notes contain information about the company financial statements of TenneT Holding B.V. Underlying details related to TenneT Holdings B.V.'s financial results and position are provided, as well as a description of the specific accounting policies applied when compiling these company financial statements.

8.1 Company accounting policies

The company financial statements for TenneT Holding B.V. have been prepared in accordance with the provisions of Part 9, Book 2 of the Netherlands Civil Code. The same principles governing valuation and the determination of results (including the principles governing the classification of financial instruments as equity or liability) have been applied when compiling the company financial statements and the consolidated financial statements, as permitted by Article 2:362, clause 8 of the Netherlands Civil Code.

8.2 Finance income

Result on finance income is mainly related to the interest received on intercompany loans and in house banking activities (see note [8.6](#)). The intercompany agreements have terms equivalent to those that prevail in arm's length transactions.

8.3 Finance expenses

Finance expenses mainly relate to interest on borrowings and credit facilities (2017: EUR 154 million; 2016: EUR 135 million).

8.4 Investments in subsidiaries

Changes in investments in subsidiaries can be broken down as follows:

(EUR million)	2017	2016
At 1 January	5,841	4,977
Share in result	497	183
Capital contribution	-	780
Dividends received	-54	-71
Re-measurement of defined benefit pension	2	-28
Net effect on (partial) sale/acquisition of subsidiaries	10	-
At 31 December	6,296	5,841

In 2017 we increased our share in Relined from 50% to 100% and therefore it has become a subsidiary.

Investments in subsidiaries relate to the legal entities included in the consolidation as disclosed in note [7.4](#) of the consolidated financial statements.

① Accounting policies

The investments in subsidiaries are measured at net asset value. The net asset value of a participating interest is determined by valuing the assets, provisions and liabilities and calculating the result using the accounting principles applied to the consolidated financial statements.

When our share of losses in an investment equals or exceeds our interest in this investment, (including separately presented goodwill or any other unsecured non-current receivables, as part of the net investment), we do not recognise any further losses, unless we have incurred legal or constructive obligations or made payments on behalf of this investment. In this case, we will recognise a provision.



8.5 Investments in joint ventures and associates

Investments in joint ventures and associates are mainly related to HGRT.

In 2017, TenneT's share in HGRT's result amounted to EUR 3 million and EUR 2 million dividends were received.

Further reference is made to note 5.3.2 of the consolidated financial statements.

8.6 Other financial assets

(EUR million)	2017	2016
Receivable from shareholder	280	630
Receivables from subsidiaries	5,767	5,566
Credit facility fees	3	4
Total	6,050	6,200

Receivables from subsidiaries are mainly related to intercompany loans and the in house bank activities of TenneT Holding B.V. The terms on these receivables are not fixed. The agreed interest rate is our cost of fund rating+0.125%. These receivables are unsecured. The movement schedule is as follows:

(EUR million)	2017	2016
At 1 January	6,200	4,636
Capital contribution	-	630
Additions	657	1,044
Repayments	-391	-30
Transfer to current	-419	-78
Other movements	3	-2
At 31 December	6,050	6,200

Besides the non-current other financial assets, the company has EUR 1.7 billion of current financial assets which is related to the receivable from shareholder (EUR 350 million) and for EUR 1.2 billion to receivables from subsidiaries.

8.7 Equity

The statement of changes in equity and disclosure to that statement are included in the consolidated financial statements.

For details on the hybrid securities see note [6.2.1](#) of the consolidated financial statements.

The revaluation reserve serves to cover the IFRS 1 revaluation of tangible fixed assets in 2004. The reserve for participating interests relates to HGRT, for which we cannot enforce payment of dividends. The hedging reserve, the revaluation reserve and the reserve for participating interests are not freely distributable. In the consolidated financial statements, both the revaluation reserve and the reserve for participating interests are included in retained earnings.

The appropriation of the 2017 profit is at the free disposal of the General Meeting of Shareholders and has not been recorded in the financial statements.

8.8 Borrowings

Details on borrowings are included in the consolidated financial statements, see note [6.3](#).



8.9 Account- and other payables

(EUR million)	2017	2016
Payables to subsidiaries	1,260	854
Interest payable	97	91
Current income tax payable	5	15
Other payables	5	3
Total	1,367	963

8.10 Events after reporting period

See note 7.5 of the consolidated financial statements.

Arnhem, 20 February 2018

Executive Board TenneT Holding B.V.

J.M. Kroon*

U.T.V. Keussen**

B.G.M. Voorhorst*

O. Jager*

A.A. Hartman

W. Breuer

Supervisory Board TenneT Holding B.V.

A.W. Veenman

P.M. Verboom

R.G.M. Zwitterloot

S. Hottenhuis

L.J. Griffith

* Statutory Director

** Statutory Director until 28 February 2018, unable to act as of 29 November 2017 (reference is made to the Supervisory Board report).

TenneT Holding B.V.

Utrechtseweg 310

6812 AR Arnhem

Chamber of Commerce register 09083317



Other INFORMATION

Profit appropriation

The appropriation of profits is governed by Section 38.3 of the Articles of Association, which states the following “To the extent that the profit is not used to make up prior losses in accordance with the provision of paragraph 2, it shall be at the free disposal of the general meeting. In the calculation of the profit amount to be distributed on every share, only the amount of the compulsory payments on the nominal amount of the shares shall be taken into consideration. In the event of a tied vote on a proposal to distribute or reserve profits, the profits to which the proposal relates shall be reserved”.



Independent auditor's report

To: the Shareholder and Supervisory Board of TenneT Holding B.V.

Report on the audit of the financial statements 2017 included in the integrated annual report

Our opinion

We have audited the financial statements 2017 of TenneT Holding B.V., based in Arnhem. The financial statements include the consolidated financial statements and the company financial statements.

In our opinion:

- The accompanying consolidated financial statements give a true and fair view of the financial position of TenneT Holding B.V. as at 31 December 2017, and of its result and its cash flows for 2017 in accordance with International Financial Reporting Standards as adopted by the European Union (EU-IFRS) and with Part 9 of Book 2 of the Dutch Civil Code; and
- The accompanying company financial statements give a true and fair view of the financial position of TenneT Holding B.V. as at 31 December 2017, and of its result for 2017 in accordance with Part 9 of Book 2 of the Dutch Civil Code.

The consolidated financial statements comprise:

- The consolidated statement of financial position as at 31 December 2017;
- The following statements for 2017: the consolidated statement of income, the consolidated statement of comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows; and
- The notes comprising a summary of the significant accounting policies and other explanatory information.

The company financial statements comprise:

- The company statement of financial position as at 31 December 2017;
- The company statement of income for 2017; and
- The notes comprising a summary of the accounting policies and other explanatory information.

Basis for our opinion

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

We are independent of TenneT Holding B.V. in accordance with the EU Regulation on specific requirements regarding statutory audit of public-interest entities, the "Wet toezicht accountantsorganisaties" (Wta, Audit firms supervision act), the "Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten" (ViO, Code of Ethics for Professional Accountants, a regulation with respect to independence) and other relevant independence regulations in the Netherlands. Furthermore we have complied with the "Verordening gedrags- en beroepsregels accountants" (VGBA, Dutch Code of Ethics).

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

Materiality

Materiality	EUR 78 million (2016: EUR 58 million)
Benchmark applied	1.4% of total equity (2016: 1.4% of total equity)
Explanation	We have determined total equity to be the most relevant measure for TenneT Holding's primary stakeholders, being the Dutch State (as the sole shareholder) and external investors in both equity and liability instruments of the group. A sufficient equity balance and solvency ratio is in our view the most relevant measure for the capital providers to make their investment decisions, also considering the long-term nature of TenneT Holding's core business. The materiality increased as in 2016 audit we did not take the capital contribution of EUR 780 million into account and in 2017 equity increased with EUR 687 million.



We have also taken misstatements into account and/or possible misstatements that in our opinion are material for the users of the financial statements for qualitative reasons.

We agreed with the Supervisory Board that misstatements in excess of EUR 3.9 million (being 5% of the materiality), which are identified during the audit, would be reported to them, as well as smaller misstatements that in our view must be reported on qualitative grounds.

Scope of the group audit

TenneT Holding B.V. is at the head of a group of entities. The financial information of this group is included in the consolidated financial statements of TenneT Holding B.V.

Our group audit mainly focused on the regulated significant group entities TSO Netherlands, TSO Germany and BritNed (non-regulated). In establishing the overall approach to the group audit, we determined the type of work that needed to be performed at the reporting units within these business segments, either by us, as the group engagement team, or component auditors within EY Netherlands and EY Germany operating under our instruction. Where the work was performed by component auditors, we determined the level of involvement we needed to have in the audit work at those reporting units to be able to conclude whether sufficient appropriate audit evidence had been obtained as a basis for our opinion on the group financial statements as a whole. Accordingly, we identified that the consolidated group entities TSO Netherlands and TSO Germany, which both consist of multiple entities, required an audit of their complete financial information due to their size.

Specific audit procedures on certain balances and transactions were performed at BritNed. These specific audit procedures were performed by a non-EY auditor.

The procedures described above provide coverage of 99% of EBIT (operating profit) and 96% of the total assets of the Group.

By performing the procedures mentioned above at group entities, together with additional procedures at group level, we have been able to obtain sufficient and appropriate audit evidence about the group's financial information to provide an opinion about the consolidated financial statements.

Our 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. We have communicated the key audit matters to the Supervisory Board. The key audit matters are not a comprehensive reflection of all matters discussed.

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.

The key audit matters are in line with prior year.



TenneT's 'Underlying' financial performance reflected in Segment Reporting (IFRS 8), as disclosed in note 2 of the financial statements

Risk	Underlying financial information is based on the principle of recognising regulatory assets and liabilities, which (based on the current regulatory framework) need to be collected from or are to be returned to customers through future grid tariffs. Under IFRS, reimbursements or settlements through future grid tariffs may not be taken into account. As a result, regulatory assets or liabilities cannot be recognized under IFRS. The Underlying financial information is reconciled for revenue, EBIT, assets and liabilities to the consolidated financial statements in note 2. The Executive Board manages and monitors TenneT's business based upon Underlying financial information, as explained in note 2 'Segment Information', as the Executive Board is of the opinion that the presentation of underlying financial information leads to a better financial insight into past and future business performance. The underlying financial information is also included in the 'Financial' section of the Our Performance in 2017 chapter. Given the relevance of the topic for the financial statements we conclude that the reconciliation of the Underlying financial information to the consolidated IFRS financial statements is a key audit matter.
Our audit approach	We have obtained an understanding of the regulatory frameworks in the Netherlands and Germany, and of relevant regulatory developments. We have assessed whether the Underlying financial information reflects how TenneT's Executive Board assesses performance and manages the business. We obtained the fourth quarter internal quarterly reporting based on Underlying financial performance and reconciled that information to the segments identified in the segment reporting as included in the financial statements note 2. We audited the movements in the underlying regulatory assets and liabilities and the reconciliation of underlying financial information to the consolidated IFRS financial statements as disclosed in note 2.
Key observations	We determined that the Underlying financial information and identified segments are consistently applied compared to previous year. Furthermore, we consider that the disclosure of the Underlying financial information (including the reconciliation between the underlying financial information to the consolidated IFRS financial statements) as disclosed in note 2 Segment Reporting of the financial statements is appropriate.

Growth in renewable energy sources and the implications for grid expenses, as disclosed in notes 3.2.1 and 5.6.3 of the financial statements

Risk	The increase in intermittent renewable energy generation, such as onshore and offshore wind and onshore photovoltaic capacity impacts the German onshore grid significantly. TenneT needs to ensure a stable grid operation and to achieve this, balancing measures are needed. The number of measures has grown compared to prior years, and, consequently, the related expenses increased significantly. The complexity of the electricity market and uncertainties in assessing energy production from the likes of wind and solar power makes estimating the grid expenses payable for some areas a complex task. Given the relevance of the topic for the financial statements we conclude that this risk is a key audit matter.
Our audit approach	We have obtained an understanding of TenneT's estimation process in relation to the accrual for balancing measures and other grid related expenses. We obtained and inspected evidence to support the Executive Board's estimates and key assumptions used in establishing the related accruals. We also tested the integrity of the measurement model applied by TenneT in calculating the estimate, including the formulas applied in the model. We further assessed the adequacy of TenneT's disclosures as included in notes 3.2.1 and 5.6.3 to the financial statements.
Key observations	We consider management's estimates and key assumptions used to be within the acceptable range and we assessed the disclosures as being appropriate.

Other provisions, as disclosed in note 5.7.3 of the financial statements

Risk	Offshore grid connections and related undersea cabling and landside stations, which are required to be built by TenneT to connect offshore wind farms to the onshore high voltage grid, are in various stages of construction. The engineering, procurement and construction of these projects is complex, large in size and executed in parallel for a number of projects. In prior years, provisions were formed relating to legal claims and to risks associated with delays and interruptions of offshore connections in Germany. Given the relevance of the topic for the financial statements we conclude that this risk is a key audit matter.
Our audit approach	We obtained evidence to support the Executive Board's estimates and key assumptions used in establishing the other provisions, in particular probability of the assumptions. We also tested the integrity of the measurement model, including the formulas applied therein. We evaluated the reasonableness of the Executive Board's judgements and assumptions applied in measuring the provisions recognised in the consolidated IFRS financial statements, note 5.7.3. We also assessed the adequacy of TenneT's disclosures as included in note 5.7.3 to the financial statements.
Key observations	We consider management's estimates and key assumptions used, to be within acceptable ranges and we assessed the disclosures as being appropriate.

Third-party claims, as disclosed in note 5.6.4 and 7.2.4 of the financial statements

Risk	Claims may relate to TenneT's operations or specific elements of the regulatory framework. These claims are either provided for or (if necessary) disclosed as a contingent liability in the financial statements. The claims are a key element of our audit as they could be material and the Executive Board makes assumptions about the legal position, the likelihood and the impact of the expected future cash outflow related to these claims. For this, the board relies on internal and external advisors. Given the relevance of the topic for the financial statements we conclude that this risk is a key audit matter.
Our audit approach	We obtained and inspected internal legal and regulatory letters, legal letters from external attorneys and minutes of meetings of those charged with governance. We also inquired employees from TenneT's legal department as well as management. We assessed TenneT's assumptions underlying the recognition and valuation of these claims, as well as management's position with respect to claims that are not provided for at year-end.
Key observations	We consider management's assessment and position of third-party claims as being appropriate.

Report on other information included in the integrated annual report

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

- 2017 at a glance;
- Letter from the CEO;
- Our Performance in 2017;
- Supervisory Board report;
- Governance and risk management;
- Other information pursuant to Part 9 of Book 2 of the Dutch Civil Code.

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

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

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

Management is responsible for the preparation of the other information, including the director's report in accordance with Part 9 of Book 2 of the Dutch Civil Code and other information pursuant to Part 9 of Book 2 of the Dutch Civil Code.

Report on other legal and regulatory requirements

Engagement

We were engaged by the Supervisory Board as auditor of TenneT Holding B.V. on 14 March 2013, as of the audit for the year 2013 and have operated as statutory auditor ever since that date.

No prohibited non-audit services

We have not provided prohibited non-audit services as referred to in Article 5(1) of the EU Regulation on specific requirements regarding statutory audit of public-interest entities.

Other non-prohibited services provided

In addition to the statutory audit of the financial statements we provided the following services:

- Regulatory reportings (Ernst & Accountants LLP and EY Network firms outside the Netherlands)
- Bond issue procedures (Ernst & Accountants LLP)
- Translation services (EY Network firms outside the Netherlands)
- Tax consultancy services (EY Network firms outside the Netherlands)

Description of responsibilities for the financial statements

Responsibilities of the Executive Board and the Supervisory Board for the financial statements

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

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

The Supervisory Board is responsible for overseeing the company's financial reporting process.

Our responsibilities for the audit of the financial statements

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

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

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

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

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

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

We communicate with the Supervisory Board regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant findings in internal control that we identify during our audit. In this respect we also submit an additional report to the Audit, Risk and Compliance Committee in accordance with Article 11 of the EU Regulation on specific requirements regarding statutory audit of public-interest entities. The information included in this additional report is consistent with our audit opinion in this auditor's report.

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

From the matters communicated with the Supervisory Board, 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, not communicating the matter is in the public interest.

The Hague, 20 February 2018

Ernst & Young Accountants LLP

Signed by J.F.M. Kamphuis

Assurance report of the independent auditor

To: the Shareholder and Supervisory Board of TenneT Holding B.V.

Our conclusion

We have reviewed the sustainability information in the Integrated Annual Report for the year 2017 of TenneT Holding B.V. at Arnhem (hereafter: TenneT). A review engagement is aimed at obtaining limited assurance.

Based on our procedures performed nothing has come to our attention that causes us to believe that the sustainability information does not present, in all material respects, a reliable and adequate view of:

- the policy and business operations with regard to corporate social responsibility;
- the thereto related events and achievements for the year 2017.

in accordance with the Sustainability Reporting Standards of the Global Reporting Initiative (GRI) and the applied supplemental reporting criteria as disclosed in section 'About this report' of the Integrated Annual Report.

The sustainability information consists of the chapters '2017 at a glance', 'Letter from the CEO', 'About TenneT', 'Our Performance in 2017' (excluding the sections 'Financial' and 'Statements of the Executive Board') of the Integrated Annual Report.

Basis for our conclusion

We have performed our review engagement on the sustainability information in accordance with Dutch law, including Dutch Standard 3810N "Assurance engagements relating to sustainability reports", which is a specified Dutch Standard that is based on the International Standard on Assurance Engagements (ISAE) 3000 'Assurance Engagements other than Audits or Reviews of Historical Financial Information'. Our responsibilities under this standard are further described in the section 'Our responsibilities for the review of the sustainability information' of our report.

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

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

Our scope

The Sustainability Information comprises the chapters "2017 at a glance", "Letter from the CEO", "About TenneT", "Our performance" in the Integrated Annual Report 2017 of TenneT.

The Sustainability Information includes prospective information such as ambitions, strategy, plans, expectations and projections. Inherent to this information is that the actual results may differ in the future and are therefore uncertain. We do not provide any assurance on the achievability and feasibility of prospective information in the Sustainability Information.

Limitations to the scope of our review engagement

Unexamined prospective information

The sustainability information includes prospective information such as ambitions, strategy, plans, expectations and estimates. Inherently, the actual future results are uncertain. We do not provide any assurance on the assumptions and achievability of prospective information in the sustainability information.



Unreviewed references to external sources

The references to external sources or websites in the sustainability information are not part the sustainability information as reviewed by us. We therefore do not provide assurance on this information.

Responsibilities of the executive board and the supervisory board for the sustainability information

The executive board is responsible for the preparation of the sustainability information in accordance with the Sustainability Reporting Standards of GRI and the applied supplemental reporting criteria as disclosed in the section 'About this report' of the Integrated Annual Report, including the identification of stakeholders and the definition of material matters. The choices made by the executive board regarding the scope of the sustainability information and the reporting policy are summarized in the section 'About this report' of the Integrated Annual Report.

The executive board is also responsible for such internal control as the executive board determines is necessary to enable the preparation of the sustainability information that are free from material misstatement, whether due to fraud or errors.

The supervisory board is responsible for overseeing the reporting process of TenneT.

Our responsibilities for the review of the sustainability information

Our responsibility is to plan and perform the assurance engagement with a limited level of assurance in a manner that allows us to obtain sufficient and appropriate assurance evidence for our conclusion.

Procedures performed to obtain a limited level of assurance are aimed to determine the plausibility of information and vary in nature and timing from, and are less in extent, than for a reasonable assurance engagement. The level of assurance obtained in review engagements is therefore substantially less than the assurance obtained in an audit engagement.

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 decisions of users taken on the basis of the sustainability information. The materiality affects the nature, timing and extent of our review procedures and the evaluation of the effect of identified misstatements on our conclusion.

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

We have exercised professional judgement and have maintained professional skepticism throughout the review engagement performed by a multi-disciplinary team, in accordance with the Dutch Standard 3810N, ethical requirements and independence requirements.

The procedures of our review engagement consisted amongst others of:

- Performing an external environment analysis and obtaining insight into relevant social themes and issues and the characteristics of the organization;
- Evaluating the appropriateness of the reporting criteria used, their consistent application and related disclosures in the sustainability information, including the evaluation of the results of the stakeholders' dialogue and the reasonableness of estimates made by management;
- Obtaining an understanding of the reporting processes for the sustainability information, including obtaining a general understanding of internal control relevant to our review engagement;
- Reconciling the relevant financial information with the financial statements;
- Identifying areas of the sustainability information where material misstatements, whether due to fraud or error, are likely to arise, and performing further procedures aimed at determining the plausibility of the sustainability information responsive to this risk analysis. These procedures consisted amongst others of:
 - Interviewing management and relevant staff responsible for the sustainability strategy, policy and results;
 - Interviewing relevant staff responsible for:
 - Providing the information for, Carrying out internal control procedures on, and Consolidating the data in the sustainability information;
 - Visits to TenneT Netherlands & Germany (Bayreuth) aimed at, on a local level, to validate source data and to evaluate the design and implementation of internal control and validation procedures;
 - Reviewing relevant internal and external documentation, on a limited test basis, in order to determine the reliability of the sustainability information; and
 - An analytical review of the data and trends submitted for consolidation at corporate level.
 - Evaluating the presentation, structure and content of the sustainability information as a whole, including the disclosures, in relation to the reporting criteria used.

We communicate with the supervisory board regarding, among other matters, the planned scope and timing of the review engagement and significant findings that we identify during our review engagement.

Amsterdam, 20 February 2018

Ernst & Young Accountants LLP

Signed by J. Niewold

About this report

Scope of this report

The scope of this report is TenneT B.V. and the subsidiaries in which it has a controlling interest (generally speaking a voting interest of over 50%). For example, our 50% stake in BritNed and BritNed's activities are not included in our results.

This integrated report covers the full year 2017, i.e. 1 January 2017 to 31 December 2017. TenneT's integrated annual report 2017 was published on 23 February 2018 and is available [online](#).

The 2016 Annual Report was published on 8 March 2017.

In 2017, there were no significant acquisitions or divestments impacting our non-financial reporting. A complete overview of all the entities consolidated in this Integrated Annual Report can be found in note 7.4 of the consolidated financial statements.

Reporting principles

We based this integrated annual report on the Integrated Reporting (IR) framework, as defined by the International Integrating Reporting Council (IIRC). This allows us to be transparent about our impact as an organisation. The financial information in this report was prepared in accordance with IFRS, as adopted by the EU, and complies with Section 9 of Book 2 of the Dutch Civil Code.

Since 2017, our non-financial qualitative and quantitative information is prepared according to the Global Reporting Initiative (GRI) Standards, following the in-accordance option: 'Core'. We also adhere to the sector guidelines for our industry (G4 sector disclosures - electric utilities).

The GRI Index table, as included on our corporate website, shows which GRI aspects are material to TenneT and refers to those sections in the report describing this aspect. In addition, and in accordance with the policy on state-owned companies (*Nota Deelnemingenbeleid Rijksoverheid 2013*), TenneT complies with the Dutch Corporate Governance Code, as laid down in the Corporate Governance section of this report.

Furthermore, our integrated annual report complies with the EU directive on the disclosure of non-financial and diversity information, which was translated to Dutch legislation and is mandatory for annual reports from 2017 onwards.

This report is also a Communication on Progress, i.e. an update on how we implement the 10 principles of the United Nations Global Compact (UNGC). We have endorsed these principles since 2015, not just to underline our own commitment, but also to drive CSR performance in the value chain. The UNGC principles are the basis of our TenneT supplier code of conduct and mandatory for all suppliers. New suppliers who do not meet our standards during factory audits, are disqualified from our tender procedures. Our Communication on Progress document can also be found on our website.

The UN recently launched new Sustainable Development Goals (SDGs). These goals are accepted worldwide as driving sustainability. The section in our annual report on strategy performance describes our impact and the contribution we make to the SDGs that are most relevant to our business.



Stakeholders and materiality

In accordance with the applied reporting principles, this integrated annual report only covers topics considered material to our organisation. TenneT uses the materiality principle to determine which subjects to include in the report and which activities in the supply chain to take into account. Our corporate website (www.tennet.eu) includes additional information which was not considered material for integrated-reporting purposes. We defined the material topics based on stakeholder interviews, combined with our own assessment of the economic, environmental and social impact. The results of this assessment can be found in the section on materiality, including a comparison with last year.

The fact that we report on selected topics does not mean we do not manage aspects that are not considered material to our business. Our activities and CSR policy are broader and are not limited to the outcome of the materiality analysis. For more detailed information, please visit the [CSR section of our website](#).

Scope and boundaries

The table below provides a clear overview of the material topics, their impact, our contribution, the boundaries and KPIs.

	Reference	Why material?	What is the impact?	What is our role?	What are the boundaries?	Key Performance Indicators (KPIs)	Targets/ambitions	Unit(s) responsible within organisation
Material topic								
Grid availability	Secure supply	Our main task is to ensure security of electricity supply to 41 million people across the Netherlands and Germany.	Electricity is the backbone of the economy of the countries we operate in.	We are responsible for maintaining a balance between supply and demand; we operate and manage the high-voltage grid.	We are responsible for transmission services. Production is the responsibility of producers, distribution lies with DSOs.	Security of supply: uptime in % Amount of interruptions (#) Energy not transported (MWh)	100% grid availability	Asset Owner
Investments	Financial performance	To facilitate the energy transition, we need to invest in our infrastructure.	To finance our investments, we need to spend approximately EUR 28 billion in the coming ten years.	We are responsible for realising the investment programme and living up to our stakeholders' expectations.	We are responsible for realising our investment portfolio. The investment programme is based on the task we are given by the Dutch and German governments.	Capital expenditures (capex) on grid infrastructure / assets (in EUR million) Return on Investment (ROI): Benefits - Costs / Costs	Invest EUR 28 billion in the period 2017-2027	Strategic Investment Committee Supervisory Board
NWE Electricity Market	Lead NWE Integration	Electricity does not respect borders and a NWE market is necessary to ensure a reliable and sustainable grid.	An integrated market drives price convergence and security of supply.	TenneT is taking a lead role in integrating the electricity market in NWE to encourage cross-border connections and closer collaboration for the benefit of society, both now and in the future.	Our responsibility is to our own grid and interconnections with neighbouring grids. Other European TSOs are responsible for their grid.	Interconnection capacity (imported and exported volumes + number of cross-border interconnections) Price convergence (number of price areas + number of hours of price equality)	A seamless cross-border energy market Realizing the North Sea Wind Power Hub	Customer & Markets
Community engagement	Engage stakeholders	It is crucial we connect with local communities, NGOs and politicians at the earliest stage of a project to address their concerns and gain their understanding and acceptance.	There is increasing public opposition to grid expansion, especially where new assets are concerned.	To be honest, open and fair to all stakeholders involved.	The decision to expand the grid is taken by the Dutch and German governments. Executing our work and explaining the necessity of it is our responsibility.	Number of stakeholder meetings and public events (#) Customer satisfaction score Corporate reputation Stakeholder approach score	Live up to our values (i.e. being responsible, engaged and connected) when addressing our stakeholders' concerns	Corporate Public Affairs (PAC) Corporate Communications (CMC)
Societal financial impact	Financial performance	TenneT's activities have a financial impact on society.	Costs of managing and balancing the electricity grids which do not directly impact company performance but which are fully reimbursed through regulatory tariffs.	It is our role to minimise costs as much as we can.	We are responsible for keeping costs as low as possible. Reducing redispatch costs is an issue for national governments to solve.	Grid expenses (EUR)	Enable low and stable energy prices	Financial departments
Safety	Engage stakeholders	The safety of everyone involved in our activities – our employees and our contractors – is a top and continuous priority.	Wherever people are at work, safety-related incidents may occur. This can harm the well-being of our people or our contractors.	Our Safety Vision 2018 aligns our views on safety with TenneT's strategic goals while retaining our licence to operate. We continually strive for zero work-related incidents and accidents.	We are responsible for our own people and responsible for setting high expectations with our suppliers and contractors. It is their job to take care of their people.	Lost Time Injury Frequency (LTIF)	For 2018: LTIF ≤ 1.8 For 2020: LTIF ≤ 1	Corporate Safety & Security (SSC)



For most of our figures, our reporting focus is on our own operations, although we do take some aspects of the value chain into account in our carbon footprint and LTIF. We recognise that reporting outside our gate (so-called 'value chain reporting') provides a better overview of our impact. As such, we have decided to include the impact of the transport activities of our offshore operations into our carbon footprint reporting.

EU directive on non-financial and diversity information

Our annual report complies with the EU directive on non-financial reporting. The table below provides a clear overview of where the different aspects of this directive are reported.

	A description of the policies pursued, including due diligence.	The outcome of those policies.	Principle risks in own operations and within value chain.	How risks are managed.	Non-financial key performance indicators.
Topic					
Relevant social and personnel matters (e.g. HR, safety etc.)	Strategic performance, engage stakeholder Operational performance, non-financial, our people Summary stakeholder activities	Strategic performance, engage stakeholder Operational performance, non-financial, our people	Strategic performance, deliver stakeholder value, engage stakeholder Operational performance, non-financial, our people	Strategic performance, deliver stakeholder value, engage stakeholder Operational performance, non-financial, our people	Strategic performance, engage stakeholder Operational performance, non-financial, our people
Relevant Environmental matters (e.g. climate-related impacts)	Operational performance, non-financial, Our impact on the planet	Operational performance, non-financial, Our impact on the planet	Operational performance, non-financial, Our impact on the planet	Operational performance, non-financial, Our impact on the planet	Operational performance, non-financial, Our impact on the planet
Relevant matters with respect for human rights (e.g. labour protection)	Operational performance, non-financial, Our impact on our supply chain	Operational performance, non-financial, Our impact on our supply chain	Operational performance, non-financial, Our impact on our supply chain	Operational performance, non-financial, Our impact on our supply chain	Operational performance, non-financial, Our impact on our supply chain
Relevant matters with respect to anti-corruption and bribery	Governance and risk management, Risk management and internal control, compliance and integrity	Governance and risk management, Risk management and internal control, compliance and integrity	Governance and risk management, Risk management and internal control, compliance and integrity	Governance and risk management, Risk management and internal control, compliance and integrity	Governance and risk management, Risk management and internal control, compliance and integrity

	A description of the policies pursued.	Diversity targets	Description of how the policy is implemented	Results of the diversity policy
Topic				
Insight into the diversity (executive board and the supervisory board)	Operational performance, non-financial, our people Supervisory Board report, Diversity and culture	Operational performance, non-financial, our people Supervisory Board report, Diversity and culture	Operational performance, non-financial, our people Supervisory Board report, Diversity and culture	Operational performance, non-financial, our people Supervisory Board report, Diversity and culture



Data collection process

The reported data is obtained from financial and non-financial data management systems in our own operations, such as IFS and SAP for financial and HR data, Mecoms for our electricity transport data, and iTask for our safety data. The key non-financial qualitative and quantitative data is included in the regular planning and control cycles and reported internally at least once a quarter by the Business Control department which performs a check on the quality and reliability of the data. TenneT's Executive Board and senior management contribute to the context of the report and the quantitative data.

The definitions and calculations used are disclosed in the abbreviations and definitions section of this integrated report and in the CSR section of our corporate website. The definitions and calculations used were re-assessed based on such things as process improvements, further alignment within the group and the materiality analysis. As a result, certain originally reported comparative figures were re-classified to conform to the current year's presentation. In case any significant assumptions or restatements were made, this is specifically addressed where the data is disclosed.

The data for this report was measured, and where no data was available, it was estimated. An example of this is the energy use at some of our smaller offices. No uncertainties or inherent limitations to the data were identified due to the measurement, estimation or calculation of data.

External assurance

The financial statements included in this report are subject to an independent external audit and TenneT's non-financial reporting is subject to a limited assurance review. These were both conducted by our external auditor, EY Accountants LLP. Reliable data is essential in our dialogue with stakeholders, so we decided to have our non-financial data reviewed by an external accountant.

Results of the external assurance are discussed with the Executive Board, Supervisory Board and CSR board. The findings are followed by our internal audit management system to keep track on their progress.

Governance of CSR

For TenneT, CSR covers a broad range of subjects, all aimed at creating a sustainable future for our internal and external stakeholders. Our CSR strategy is from 2015 to 2017 as such our strategy has not changed compared to last year. In 2017, we decided to work towards a CSR mid-term plan for 2018-2020, focusing on three main areas with clear ambitions for 2020-2025.

The CSR mid-term plan 2015-2017, discussed and agreed by the Executive Board and Supervisory Board, describes our ambitions for each material topic based on the CSR maturity ladder (defensive, responsible, strategic and transformative). To ensure progress, each project defined in the 2017 CSR action plan is the responsibility of a senior manager with support from CSR policy advisor, who reports to the senior financial control manager. We have established a CSR board to monitor progress on the CSR mid-term plan and advise the Executive Board on the integration of CSR into the business. The CSR board, which meets quarterly, is chaired by the CFO and includes senior managers from Asset Management, Large Projects, Communication, Public Affairs and Finance.

It is TenneT's ambition to be one of the best-performing TSOs in CSR in Western Europe and as such we continuously look for innovations and opportunities to improve our CSR performance. We benchmark ourselves against our peers using external assessment processes, such as the Netherlands Transparency Benchmark, Oekom, Sustainalytics and Vigeo. Our ambition is to be in the top 25 of the Transparency Benchmark and within the top 25% for the other ratings. This supports our defined ambitions in CSR reporting and CSR substantive issues, respectively. In 2017 we attained our goals: we were at no. 7 on the Transparency Benchmark and were in the top 25% of the other sustainability ratings.

Summary of stakeholder activities

Stakeholder	Type of dialogue	What we discussed and achieved in 2017	Priorities for 2018
Governments, political parties and regulatory bodies	Informative and close involvement	<ul style="list-style-type: none"> • Concluded Netstabilitätsanlage (net stability) discussion in Germany and preparing implementation. • Developed best practice consultation process to encourage a new and innovative approach that includes stakeholders and municipalities at an early stage. • The latest grid concepts – where innovative DC-technologies and an artificial island are being considered - have been realized in close cooperation with Government and in alignment with stakeholders such as Industry, NGO's and others. • The North Sea Wind Power Hub. consortium has been initiated and started with several studies and investigates relevant technical, economical, ecological and policy aspects. • In 2017, the first international NGO meeting, where our CEO Mel Kroon was present, took place to kick off a joint fact finding process concerning the ecological aspects of large scale wind farms and an energy island. 	<ul style="list-style-type: none"> • Ongoing work with relevant ministries on requirements for stakeholder management consultations for national environmental plan NOVI. • Give local and regional authorities formal role in consultation processes that will see mid-term RCR approach phased out. • Work on developing sustainable data platform • Work with NGOs to achieve government ambitions on offshore wind energy. • Build relationship with new governments in the Netherlands and Germany and provide detailed follow-up energy transition ambitions. • Continue to position our views on Clean Energy Package (CEP) (ROCs, ACER recommendations etc.) with relevant stakeholders.
Local communities	Informative and close involvement on various projects Local participation and interaction	<ul style="list-style-type: none"> • Proactive interaction with local communities and authorities for several cabling projects (110/150 kV) and substations, during planning phase and landscape planning. • Proactive interaction on new offshore wind projects and new 380 kV overhead line projects • Interaction online and offline on several initiatives with local communities, boosting our relationships in the region. • As a pilot, monitoring the sentiments and topical issues for local communities in the Netherlands. • In Germany, stakeholder activities regarding the two large DC cable projects (SuedLink, SuedOstlink) attracted most public attention. • 80 official visitor groups in the Berlin Virtual Vision where Lex Hartman, Member of the Executive Board, conducted several tours. • Stakeholder activities including bilateral talks with politicians, land owners and activist groups. Information markets and public consultations also necessary at different planning stages in most large AC projects. 	<ul style="list-style-type: none"> • Online and offline monitoring of topical local community issues and sentiments. • Measuring and monitoring stakeholder communication in standardised quantitative and/or qualitative measurement tools.
Media	Close involvement	<ul style="list-style-type: none"> • Positioned TenneT's central role in the energy transition. • Secured media understanding of our role as a key player in the development of offshore wind energy. • Broad national and international media attention in the expansion of the North Sea Wind Power Hub consortium. 	<ul style="list-style-type: none"> • Continue to position the vision on the North Sea Wind Power Hub. • Share relevance and necessity of TenneT's role in the digital transformation of the electricity grid. • Strengthen image of TenneT as a frontrunner for citizen participation. • Promote TenneT's role in society, i.e. its CSR activities.
Customers	Informative, close involvement in various areas and contractual agreements	<ul style="list-style-type: none"> • Set up and executed pilots for Schaufenster Intelligente Energie (SINTEG) programme. • Drove Intra-Day Congestion Management (IDCONS) concept, resulting in a test system running at ETPA and Stedin, and a design for a TenneT interface. • Developed flexibility roadmap. • Contributed to Republiq, an FRR blockchain project. • Contributed to Flexnet study on future demand for and supply of flexibility. • Prepared proposal for kW max tariff adaptation to remove cost barrier for flexible assets at times of low load. • Participated in stakeholder panels during international balancing projects. • Added functionalities to MyTenneT portal for service providers. 	<ul style="list-style-type: none"> • Complete blockchain pilots; evaluate together with partners and then scale. • Initiate internal priority actions identified in flexibility roadmap, focusing on enabling aggregator role. • Ensure follow-up to lessons learned from current/recent ancillary services pilots.

Continuation >



Summary of stakeholder activities

< Continued

Other European TSOs	Close involvement	<ul style="list-style-type: none"> • Focused on cooperation, while EU sentiment moved in a different direction, with more national focus. • Election of Ben Voorhorst as new president of ENTSO-E. • Cooperate with other TSOs in CORE and Hansa region. 	<ul style="list-style-type: none"> • Actively seek further cooperation.
Suppliers	Market consultation, meetings and negotiations	<ul style="list-style-type: none"> • Managed tender for contracts for Wind op Zee within budget. • Executed tender process for the German offshore cluster connection DoWin6 and new Wintrack overhead lines. • Continued Safety Culture Ladder roll-out in a series of 16 workshops for 430 suppliers. All four pilots are now SCL-certified. 	<ul style="list-style-type: none"> • Prepare and process further tenders for Dutch and German onshore and offshore wind integration projects. • Strategically expand supplier base by introducing dedicated spend category management.
Non-governmental organisation (NGOs)	Informative, cooperative, consulting and involvement on project level	<ul style="list-style-type: none"> • Held September meeting in Berlin with NGOs on energy vision for 2050 and impact on the North Sea. • Signed a contract with Limburgs Landschap for maintenance near our lines. • Launched a bird hotline with other TSOs in Germany and German environmental protection agency NABU. 	<ul style="list-style-type: none"> • Continue our constructive dialogue with NGOs and plan launch of structured approach for NGO consultation.
Employees	Close involvement	<ul style="list-style-type: none"> • Developed diversity policy. • Designed corporate performance management concept. • Achieved good employee survey results. • Rolled out international and extended trainee programme. • Strengthened talent pipeline for future team managers. • Decided to negotiate new collective labour agreement for the Netherlands. 	<ul style="list-style-type: none"> • Roll out diversity policy by executing and evaluating agreed initiatives. • Execute leadership team's new performance management concept. • Evaluate and prepare introduction of new performance management concept for rest of organisation. • Attract top talent to achieve our ambitious strategic project portfolio. • Design, negotiate and implement new collective labour agreement.
Shareholders (Corporate and projects)	Close involvement	<ul style="list-style-type: none"> • Obtained shareholder approval for investments in several large onshore and offshore projects. • Updated regularly and obtained shareholder approval when necessary. • Concluded ongoing dialogue on equity financing. • Arranged company and site visits, with our CEO Mel Kroon and our CFO Otto Jager present. 	<ul style="list-style-type: none"> • Finalise discussion with Ministry of Finance on further increase of TenneT's equity capital in short to medium term. • Hold frequent meetings with equity investors.
Debt investors and rating agencies	Close involvement and contractual agreements	<ul style="list-style-type: none"> • Maintained our A-/ A3 credit rating and our top 25% industry-recognised CSR rating. • Negotiated and arranged additional financing in banking and debt capital markets. • Held annual roadshow. 	<ul style="list-style-type: none"> • Negotiate and arrange additional financing in banking and debt capital markets. • Manage financial risks and capital structure. • Focus and expand CSR activities.



Key figures: five-year summary

(based on underlying figures)

	2017	2016	2015	2014	2013
Net debt	7,687	7,347	5,736	4,159	3,153
EBIT	897	834	1,075	725	620
Profit for the year	531	523	681	418	357
Investments in tangible fixed assets	1,770	1,848	2,405	2,296	1,868
Grid availability	99.9986%	99.9999%	99.9975%	99.9999%	99.9999%
Interruptions	11	6	18	4	9
Interconnectors	13	13	13	13	13
Internal headcount	3,187	3,040	2,887	2,700	2,593
Stakeholder meetings	756	171	188	N/A	N/A



Glossary

ABP - Algemeen Burgerlijk Pensioenfonds

ABP is the civil service pension fund for government, education and energy employees in the Netherlands.

AC - Alternating current

In alternating current (AC), the flow of electricity periodically reverses direction. By contrast direct current (DC), electricity only flows in one direction. AC is used to transport electricity over relatively shorter distances and DC for relatively longer distances.

ACER - Agency for the Cooperation of Energy Regulators

The European network organisation for energy regulators. It has a key role in the integration of European electricity and gas markets, providing a framework for cooperation at EU level and regulatory certainty.

ACM - Autoriteit Consument & Markt

The Dutch Authority for Consumers and Markets protects the interests of consumers and businesses and specifically oversees the energy, telecommunication, transport and postal industries. This authority regulates the network operators in the electricity market and sets maximum transmission tariffs for the national grid operator's system services and for the connections to the grid. ACM creates conditions for a well-functioning national and international wholesale market.

AIS - Air insulated switchgear

A switchgear that is insulated by air instead of gas.

Blockchain

The digital process of verifying and documenting the performance of distributed flexible devices. Blockchain is suited to connecting multiple parties and large numbers of distributed computed nodes and enabling them to undertake joint action in a scalable, transparent and trusted network.

BMWi - Bundesministerium für Wirtschaft und Energie

BMWi is the German federal ministry for economic affairs and energy.

BNetzA - Bundesnetzagentur für Elektrizität, Gas, Telekommunikation, Post und Eisenbahnen

The German regulatory authority promotes effective competition in the regulated areas and ensures non-discriminatory access to networks. It protects

important consumer rights and is also the root certification authority under the Electronic Signatures Act. In addition, BNetzA is responsible for implementing the Grid Expansion Acceleration Act.

BritNed

The 260 km-long high-voltage direct current BritNed cable has a capacity of 1,000 MW and connects the Dutch and British electricity grids.

Capex - Capital expenditure

Capital expenditure (capex) is the amount spent on acquiring or improving long-term assets. Its benefits are enjoyed over a long period time, not only in the current year. Capex is of a non-recurring nature and results in the acquisition of permanent assets.

Carbon footprint

The total amount of greenhouse gases produced to directly and indirectly support human activities, usually expressed in equivalent tons of carbon dioxide (CO₂).

CEER - Council of European Energy Regulators

The Council of European Energy Regulators is a 'not-for-profit' organisation in which Europe's national regulators of electricity and gas voluntarily cooperate to protect consumer' interests and to facilitate the creation of a single, competitive and sustainable internal market for gas and electricity in Europe.

CEP - Clean Energy Package

On 30 November 2016, the European Commission published its long-anticipated 'Clean Energy for All Europeans' package, more commonly referred to as the 'Winter Package', consisting of numerous legislative proposals together with accompanying documents, aimed at further completing the internal market for electricity and implementing the Energy Union.

CGU - Cash generating unit

A cash-generating unit is the smallest group of assets that independently generates cash flow and whose cash flow is largely independent of the cash flows generated by other assets.



CIGRE – International Council on Large Electric Systems

Founded in 1921, CIGRE, the Council on Large Electric Systems, is an international NGO for promoting collaboration with experts from all around the world by sharing knowledge and joining forces to improve electric power systems of today and tomorrow.

CIP - Copenhagen Infrastructure Partners

Copenhagen Infrastructure Partners is a fund management company that is joined between four senior partners and PensionDanmark.

CO₂ - Carbon dioxide

Carbon dioxide is a greenhouse gas formed by the burning of carbon-based fuels. Its concentration in the atmosphere is rapidly increasing, leading to global warming.

COBRACable

A 275 km-long high-voltage direct current cable that is under construction to connect the Dutch and Danish electricity grids. It will have a capacity of 700 MW.

CORE

CORE is a region in Europe in which methods and tools have been or are to be developed according to the European networks codes. Each border is allocated to a certain region. The main topic addressed in the regions is capacity calculations, i.e. the same capacity calculation method will apply for all borders between bidding zones. CORE is the result of merging Central Western Europe and Central Eastern Europe.

COSO - Committee of Sponsoring Organisations of the Treadway Commission

COSO has established the common internal control model against which companies and organisations assess their control systems.

Council of Children

The Council of Children is an initiative by the Dutch Missing Chapter Foundation. The goal of this foundation is to contribute to finding future-proof solutions for social issues.

CP programme - Commercial paper programme

A commercial paper is a flexible short-term debt instrument that is issued directly to the market with different maturities and is offered continuously.

CSR - Corporate social responsibility

Corporate social responsibility relates to the socially responsible business practices of a company balancing people, planet and profit.

Cross-border TSO

A cross-border TSO is a TSO that operates in more than one country

DC - Direct current

In direct current (DC), the flow of electricity is only in one direction. In alternating current (AC), the electricity flows periodically reverses direction. DC is used to transport electricity over relatively longer distances and AC for relatively shorter distances.

DSO - Distribution system operator

A regional electricity distribution company, that is connected with end users, and is responsible for providing (1) power distribution services, by constructing and maintaining a robust high-voltage grid, and (2) facilitating a smooth functioning, liquid and stable electricity market.

E-wet - Elektriciteitswet 1998

The Dutch electricity law.

EBIT - Earnings before interest and tax

Earnings for the period before income tax expense and interest payments are deducted.

EBITDA - Earnings before interest, tax, depreciation and amortisation

Earnings for the period before income tax expense, interest payments depreciation and amortisation are deducted.

EC - European Commission

The European Commission is the executive of the European Union and promotes its general interest.

EEG - Erneuerbare-Energien-Gesetz

German Renewable Energy Act, designed to govern the preferred supply of electricity from renewable sources into the grid with guaranteed, fixed minimum producer prices. It is intended to serve and protect the climate and is one of several statutory provisions aimed at reducing Germany's dependence on fossil fuels such as oil, natural gas or coal, and nuclear power.



EIB - European Investment Bank

The European Investment Bank is one of the key financial institutions of the EU. It is the only bank owned by and representing the interests of the EU member states, providing financing for sustainable investment projects that contribute to furthering EU policy objectives.

EMTN - Euro medium-term note

A flexible medium-term debt instrument that is issued directly to the market with different maturities and is offered continuously rather than all at once like a bond issue.

Energinet dk

Energinet dk is the Danish TSO that TenneT is partnering with to build the COBRACable between the Netherlands and Denmark. Energinet dk is also participating in the development of the North Sea Wind Power Hub.

ENTSO-E - European Network of Transmission System Operators for Electricity

ENTSO-E is the organisation of transmission system operators at a European level, representing 41 TSOs from 34 countries. Its mission is to promote important aspects of energy policy, especially integrating renewable energy and the completion of an internal energy market.

EnWG - Energiewirtschaftsgesetz

German Energy Industry Act. In accordance with the EU directive, the EnWG lays down objective and non-discriminating principles for the taking up of energy supply and the construction of power plants and power lines.

EU - European Union

The European Union (EU) is a political-economic union of 28 member states located in Europe.

EU DG COMP- Directorate-General for Competition

The Directorate-General for Competition (DG COMP) is a Directorate-General of the European Commission. The DG Competition is responsible for establishing and implementing a coherent competition policy for the EU.

EU DG ENER - Directorate-General for Energy

The Directorate-General for Energy is one of 33 policy-specific departments in the European Commission. It focuses on developing and implementing the EU's energy policy, namely to provide secure, sustainable, and competitive energy for Europe.

FCR – Frequency containment reserve

Frequency containment reserves are the active power reserves available to contain a system frequency of 50 Hz after the occurrence of an imbalance.

FFO - Funds from operations

Profit for the year plus depreciation, amortisation and impairments minus gain/loss on the disposal of assets.

FFO/net debt

Funds from operations divided by net debt.

FTE - Full-time equivalent

Full-time equivalent is a unit that measures work by converting work load hours into the number of people required to complete that task.

G3 gas

G3 gas is an alternative gas to SF₆ for use in high voltage substations.

Gasunie - N.V. Nederlandse Gasunie

Gasunie is a European gas infrastructure company that transports natural gas and green gas in the Netherlands and the northern part of Germany. Gasunie is participating in the development of the North Sea Wind Power Hub.

GIS - Gas insulated switchgear

A switchgear insulated via SF₆ gas.

GRI - Global Reporting Initiative

The Global Reporting Initiative is a non-profit organisation that promotes sustainability and produces global standards for sustainability reporting.

GW - Gigawatt

A unit of power equal to one billion watts.

GWh - Gigawatt hour

A unit of energy equivalent to delivering one billion watts of power for a period of one hour.

Hansa

Hansa is a region in Europe in which methods and tools have been or are to be developed according to the European networks codes. Each border is allocated to a certain region. The main topic addressed in the regions is capacity calculations, i.e. the same capacity calculation method will apply for all borders between bidding zones in these regions. Hansa contains the links between Scandinavia and the continent.



Helaba - Helaba Pension Trust e.V.

Helaba Pension Trust e.V. is a subsidiary of German bank Landesbank Hessen-Thüringen and holds a part of the assets of the German pension plan.

HGRT - Holding des Gestionnaires de Réseaux de Transport d'Électricité S.A.S.

Holding des Gestionnaires de Réseaux de Transport d'Électricité S.A.S. is a holding company of EPEX SPOT power exchange.

HR - Human resources

Our HR department aims to make a distinctive contribution to TenneT's position as a leading TSO by attracting, recruiting and retaining qualified staff, and by creating a healthy and stimulating working environment.

HVDC - High-voltage direct current

A high-voltage, direct current system can transmit bulk electricity over longer distances than an alternating current system and with lower grid losses. As such, HVDC is used for connecting offshore wind farms to the onshore grid and for our Interconnectors NorNet to Norway, BritNed to the UK and COBRACable to Denmark and NordLink to Norway.

ICF - Internal control framework

Framework for the set of internal controls, to provide reasonable assurance on the reliability of our internal and external reporting.

IDCONS - Intra-Day Congestion Management

Market based congestion management is used to take into account the physical transmission capacity of the European power grid within the electricity market model.

IFRS - International Financial Reporting Standards

The internationally prescribed and recognised reporting guidelines.

JAO - Joint Allocation Office

The merger of regional auction offices CASC.EU and CAO in June 2015 created the Joint Allocation Office for cross-border electricity transmission capacity; JAO is a collaboration of 20 TSOs from 17 European countries. It significantly increases the efficiency and transparency of the European electricity market, creating a single point of contact for market participants with harmonised auction rules that simplify trading and promises substantial savings to TSOs in the coming years.

KfW - Kreditanstalt für Wiederaufbau

KfW is the Reconstruction Credit Institute development bank owned by the German government.

kV - kilovolt

A unit of electric voltage equal to 1,000 volts.

KWK-G - Kraft-Wärme-Kopplungs-Gesetz

The German Combined Heat and Power Act.

LEAN

The core idea of LEAN is to maximise customer value while minimising waste. Simply, LEAN means creating more value for customers with fewer resources. The principles of LEAN were developed by the Japanese car manufactory Toyota.

LOR - Letter of representation

A Letter of Representation is signed by the management of the Group and/or performance unit to attest to the accuracy of the financial statements.

LTIF - Lost-time injury frequency

The lost-time injury frequency is the number of lost-time injuries per million hours worked. A lost time injury is an injury that results in at least one day's absence from work.

MIGRATE - Massive InteGRation of power electronic devices

The MIGRATE research programme seeks to develop solutions to technical issues

Moody's

Moody's Investors Service provides of credit ratings, research, and risk analysis.

MW - Megawatt

A unit of power equal to one million watts.

MWh - Megawatt hour

A unit of energy equivalent to delivering one million watts of power for a period of one hour.

Net debt

Gross debt minus cash and cash equivalents at free disposal.

Netbeheer Nederland

Netbeheer Nederland is the association in the energy sector representing the interests of national and regional electricity and gas network operators in the Netherlands.



NGO - Non-governmental organisation

A non-governmental organisation is a voluntary citizens' group that is neither a government initiative nor a conventional for-profit business.

NOKA - DC Nordseekabel GmbH & Co. KG

NOKA is jointly owned by TenneT and German development bank KfW. It is responsible for financing and building the German part of the NordLink cable.

NordLink

TenneT is jointly developing the NordLink interconnector with its project partners, the Norwegian TSO Statnett and German development bank KfW. With an overall transmission capacity of 1,400 MW, the subsea cable will run between Tonstad in the south of Norway and Wilster in northern German.

NOVI – Nationale Omgevingsvisie

The Netherlands' new Environment and Planning Act comes into effect in 2021, part of which is a single national roadmap for the living environment called the 'National Omgevingsvisie'.

NWE - north-west Europe(an)

A region in Europe that includes Netherlands, Germany, Belgium, Denmark, United Kingdom, France, and Luxembourg.

NWb - WENB Sector Energie NWb

NWb is a Dutch NGO for employers in the energy sector.

Oekom

Oekom research AG is a sustainability ratings agency and external assessor for benchmarking CSR reports.

Opex - Operational expenditure

Operating expenditure (opex) is the expenses that a company incurs as a result of its normal business operations.

OWF - Offshore wind farm operators

Offshore wind farms are constructed in bodies of water to generate electricity from wind.

PCI - Project of common interest

To help integrate the European energy market, the European Commission has drawn up a list of 248 projects of common interest (PCIs). These projects may benefit from accelerated licensing procedures, improved regulatory conditions, and access to financial support totalling EUR 5.35 billion from the Connecting Europe Facility (CEF) between 2014 and 2020.

PROMOTioN - Progress on Meshed HVDC Offshore Transmission Networks

A leading European research programme that will result in an offshore grid development plan for 2020 and beyond

Prosumers

Energy consumers simultaneously acting as producers

RCF - Revolving credit facility

A line of credit where TenneT pays a commitment fee and can then use the funds as and when they are needed.

RCR - Rijks coördinatie regeling

A Dutch new regulatory regime, for important projects which are funded at a t-0 level by the regulator.

RES - Renewable Energy Sources

All sources of renewable energy including sunlight, wind, tides, waves, biomass and geothermal heat.

RGI - Renewables Grid Initiative

The Renewables Grid Initiative is a unique collaboration of NGOs and TSOs from across Europe. It promotes transparent, environmentally sensitive grid development to enable the further steady growth of renewable energy and the energy transition.

ROIC - Return on invested capital

Earnings before interest and tax expressed as a percentage of the average invested capital during the year based on 'underlying' information.

S&P - Standard & Poors

Standard & Poors provides of credit ratings, research, and risk analysis.



SCL - Safety Culture Ladder

TenneT uses the Safety Culture Ladder (SCL) as a tool to increase safety awareness and enhance safety culture and not only within our own organisation but also for our contractors. The Safety Culture Ladder is a requirement in the selection phase of a tender as described in the 'Safety by Contractor Management' programme.

SDG - United Nations Sustainable Development Goals

The United Nations Sustainable Development Goals (SDGs), officially known as transforming our world: the 2030 Agenda for Sustainable Development, is a set of seventeen aspirational 'global goals' with 169 targets between them. This agenda is set by the UN.

SF₆ - Sulphur hexafluoride

An inorganic, colourless, odourless and non-flammable greenhouse gas that is used in the electricity industry to insulate high-voltage circuit breakers, switchgear and other electrical equipment.

SHE - Safety, health & environment

SHE is the set of activities relating to Safety, health & environment.

SINTEG - Schaufenster Intelligente Energie

With the SINTEG funding programme, the Federal Ministry for Economic Affairs and Energy (BMWi) aims to carry out a large-scale practical test for the energy supply of the future and the digitization of the energy sector.

SLA - Service level agreement

A service-level agreement is an agreement between two or more parties, where one is the customer and the others are service providers.

Statnett

Statnett SF is the Norwegian TSO transmission system operator that TenneT and German development bank KfW are partnering with to build the NordLink cable between Germany and Norway.

SuedLink

A DC connection to transport electricity generated in the north of Germany to the south.

SuedOstLink

A DC connection to transport electricity generated in north of Germany to the south-east.

Sustainalytics

Sustainalytics is a sustainability ratings agency and external assessor for benchmarking CSR reports.

TSCNET

TSCNET Services is the service company of the TSC TSOs. The Munich-based company coordinates TSC's activities and provides integrated services for TSOs and their control centres

TSO - Transmission system operator

A transmission system operator transports electricity on a national or regional level from producers to distributors. A TSO is responsible for providing (1) power transmission services, by constructing and maintaining a robust high-voltage grid, (2) system services, by maintaining the balance between supply and demand of electricity 24/7 and (3) facilitating a smooth functioning, liquid and stable electricity market.

Transparantie Benchmark

Dutch CSR benchmark by the Dutch Ministry of Economic Affairs that annually assesses Dutch companies on the content and quality of their CSR reports.

UN - United Nations

An international organisation formed to promote international peace, security, and cooperation under the terms of the charter signed by 51 founding countries in San Francisco in 1945.

UNGC - United Nations Global Compact

A call from the UN to companies to align strategies and operations with universal principles on human rights, labour, environment and anti-corruption, and take actions that advance societal goals.

VET - Wetsvoorstel Voortgang Energietransitie

VET is the Dutch law proposal that combines the current E-wet and Gaswet.

VKE - Versorgungskasse Energie VVaG

Versorgungskasse Energie VVaG is pension fund for energy mutuals and a subsidiary of E.ON SE. It holds a part of the assets of the German pension plan.

WACC - Weighted average cost of capital

The WACC is the rate that a company is expected to pay on average to all its capital providers to finance its assets.



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We look forward to receiving your feedback on this report. Please send an email.

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Parts of this report contain forward-looking information. These parts may include unqualified statements on future operating results, government measures, the impact of other regulatory measures on the activities of TenneT as a whole, TenneT’s shares and those of its subsidiaries and joint-ventures in existing and new markets, industrial and macro-economic trends and TenneT’s performance in these. Such statements are preceded or followed by or contain words such as ‘believes’, ‘expects’, ‘anticipates’ or similar expressions. These forward-looking statements are based on current assumptions concerning future activities and are subject to known and unknown factors, and other uncertainties, many of which are beyond TenneT’s control, so that future actual results may differ significantly from these statements.

All financial information in this integrated annual report is reported in millions of euro, unless stated otherwise. As a result, small rounding differences may occur.



TenneT is a leading European electricity transmission system operator (TSO) with its main activities in the Netherlands and Germany. With over 22,500 kilometres of high-voltage lines we ensure a secure supply of electricity to 41 million end-users. We employ over 3,000 people, have a turnover of EUR 3.9 billion and our assets total EUR 20 billion. TenneT is one of Europe's major investors in national and cross-border grid connections on land and at sea, bringing together the Northwest European energy markets and enabling the energy transition. We take every effort to meet the needs of society by being responsible, engaged and connected. **Taking power further.**

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