TenneT TSO B.V.

Annual Report 2019

Taking power further

Contents

About TenneT TSO B.V.

TenneT TSO B.V. (hereafter 'TenneT') is the electricity transmission system operator (TSO) with activities in the Netherlands. 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.

Our task

The vast majority of our activities are regulated by the ACM in the Netherlands. We have three regulated tasks: (1) the transportation of electricity, (2) system services for maintaining the energy balance, and (3) market facilitation. 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.

Transporting electricity

The high-voltage grid is the backbone of the electricity supply system. It is used for the transport of high-voltage electricity over long distances. We are a key player in the electricity supply chain. On the one side, this consists of producers of electricity from both conventional and fast-growing renewable energy sources and on the other side large industry and distribution system operators (DSOs). Next to that, we import and export electricity across borders to keep the grid stable and balanced at all times.

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. Also, electricity generated at sea, for instance, is transported via subsea cables and then connected to the high voltage grid.

Market facilitation

Electricity recognises no geographical borders, and we believe North West Europe (NWE) 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 facilitate a single market that guarantees a reliable electricity supply at a fair price.

Strategy and value creation

TenneT TSO B.V. is part of the TenneT Group, which operates as TSO in the Netherlands and a large part of Germany.

In 2019, we finalised our strategic reorientation to recalibrate our strategic pillars. This has led to the following four newly defined pillars: 1) Energise our people and organisation; 2) Secure supply today and tomorrow; 3) Drive the energy transition and 4) Safeguard our financial health.

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 still cannot be stored in large quantities, continuous adjustment of electricity supply and demand is needed to ensure security of supply. To do this, we have national control centres in the Netherlands, where supply and demand are monitored and balanced 24 hours a day, seven days a week.

Management Board report

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.

Our performance

How we want to create long term value for society is defined alongside the six capitals from our value creation model.

Deliver a high security of supply

In today's connected world, people expect that power will always be available, when we flick a switch or reach for a power outlet. We rely on electricity to power many aspects of our lives –at work, home and on the move.

As the grid operator for the Netherlands, our biggest responsibility is to ensure a safe, reliable and secure supply of electricity to 17 million end-users, 24 hours a day, 365 days a year. We have worked hard to meet this expectation during every step of our 20-year journey. This is also becoming more complex and dynamic as more renewable energy sources (RES) are introduced into the energy mix. By nature, power generated by the sun or wind is volatile, which makes it harder for TenneT to balance supply and demand of electricity in the grid. To manage this, we need to be innovative, agile and more forward-thinking than ever before.

Securing the supply of electricity is a responsibility that our society as a whole depends on. Our modern, connected and growing high-tech economy relies on a high-performing electricity infrastructure. If we fail to meet the energy needs of society, we risk slowing economic growth and social prosperity.

Furthermore, TenneT plays a critical role in helping society make the transition to a low carbon economy. The challenge is how to achieve this energy transition on the scale and at the speed society requires, whilst also considering the affordability of this societal change. It is a challenging quest for our entire industry, sparking a new age of ground-breaking invention and collaboration the world over.

Maintaining security of supply also means investing in new assets, performing necessary maintenance and further linking our grid to the NWE network. One of the most important reasons for investment is to help the grid cope with the unpredictable peaks and troughs of in-feed from wind and solar energy. We need to make ongoing investments in the grid to help us overcome this volatile in-feed and maintain a secure supply. An example of this is our 'Beter Benutten' programme. Starting in 2019, this will increase the capacity of the national 380 kV electricity transmission network in the Netherlands. It does not involve installing new lines but increasing the capacity of the existing connections. The first stage of work began with the Lelystad-Ens connection. Four other connections will be upgraded in the period 2019 to 2024. Smart investments like this will enable the network to transport more electricity in the future, helping it to cope with the strongly fluctuating transport needs for sustainable energy.

To meet the challenges of the energy transition and fulfil our mission to provide security of supply for society, we must realise all capabilities of our grid so that it is fit for the future. To do this, we must harness new innovations, in both the market and technology, to develop more flexibility that can support the system. Doing this is not only a matter of building more assets. We also need to be smarter, using for example digital solutions to prepare our grid for more volatile renewable energy sources. As such, we are investing in many innovations to unlock new flexibility, such as smart monitoring, advanced data analytics, crowd balancing and blockchain technology.

Ensuring security of supply also means connecting NWE's energy markets so we can share electricity with our neighbours. TenneT has long been a pioneer in building cross-border connections and supporting the evolution of an integrated NWE electricity trading market.

An important example is the COBRA cable between the Netherlands and Denmark, which became available for the electricity market in September 2019. The 325 km-long subsea high-voltage direct current cable has a capacity of 700 megawatts (MW) and will enable the Netherlands to import more sustainable electricity, mainly wind energy from Denmark. It can also be used to export electricity to Denmark when prices are high in the Netherlands. The project was supported with a European Energy Programme for Recovery (EEPR) grant from the European Commission to stimulate innovation.

The COBRAcable is an initiative of TenneT and the Danish electricity and gas grid operator Energinet.dk, with construction starting in 2016, the cable runs between Eemshaven (the Netherlands) via Germany and Endrup (Denmark). Two onshore converter stations, one in the Netherlands and one in Denmark, convert alternating current (AC) into direct current (DC) and vice versa. This is beneficial when transporting electricity over longer distances as it reduces the losses in the system.

Ensure critical infrastructure for society

Investment in energy infrastructure has never been more important – not only for TenneT, but for all players in this complex and fast-changing market. We have an important role to meet society's demands with respect to the energy transition, while maintaining reliability and affordability for end-users.

The fight against climate change demands a long-term commitment. To this end, our plans should look as far ahead as 2030 or even 2050. We have to think big, plan for the unexpected and work closely together with our stakeholders to safeguard security of supply in a carbon-free energy future.

For the next decade, our investments in the Netherlands will result in the required backbone to deliver the energy transition, with solutions that accommodate and balance renewables in the electricity supply, connect across borders, allow renewable electricity to be stored and transported further, and link the offshore and onshore grids. At the same time, we strive to keep the cost for society as low as possible, minimise our impact on the natural environment and local communities and optimise the working environment of our people.

In September, Borssele Alpha, TenneT's first and largest connection system for wind farms on the Dutch North Sea became ready for operation. Completed according to plan, Borssele Alpha is ready to transport the future wind energy from the major offshore wind farms in the North Sea. The Borssele area is critical for the Netherlands to meet its renewable energy targets. Borssele Alpha is the first of two connections of 1,400 MW in aggregate, with the second expected to be ready in 2020.

October 2019 saw the completion of the Randstad 380 kV Noordring project. This strategically important connection is a new 380 kV high-voltage connection between Beverwijk and Bleiswijk. With a length of 65 km, it is TenneT's largest landbased project in the Netherlands and is essential for the security of supply of electricity in the Randstad, a metropolitan area comprising the four largest Dutch cities and their surrounding areas. Not only is this region of great economic and strategic importance, its energy demands are growing. Having overcome the challenges of constructing a powerline in one of Europe's most urbanised environments, TenneT is proud of the completion of this project. The connection also helps to future-proof our grid, as it will transport green energy from the wind farms in the North Sea.

A significant project for supporting the energy transition in the Netherlands is the 'Hollandse Kust (zuid)' grid connection. This consists of two 700 MW connections, so in total 1,400 MW. During 2019 the construction of the topside and jacket for the platforms has started. The platforms will be connected to the high-voltage 220 kV substation at the Maasvlakte by means of four AC cables. The civil works to accommodate the installation of the cables (horizontal directional drillings) through the sea defence wall and crossing the Yangtze channel were completed in 2019.

An important element of our ongoing maintenance programme is to make our 110/150 kV substations ready for the future. To do this, we need to replace approximately 140 substations, many of which are over 45 years old. Over the next 10 years, we will be replacing approximately one substation per month. To move fast, we have introduced common technical standards so we can take a uniform approach to replacement, maintenance and management. Our Bay Replacement programme, which started in 2017, has largely designed this new approach. The new concepts were tested in 2019 with the replacement of six proof-of-concept-substations with air insulated (AIS) and gas insulated (GIS) technology. Based on the results of this, from technical, organisational and financial perspectives, TenneT started with the large volume replacement of 110/150 kV substations using the new technical standards during 2019.

Create a sustainable workplace

TenneT is proud of the successes of the past 20 years in the European electricity market. During this time, we have grown rapidly with a dedicated workforce exceeding 1,580 employees. We are pioneers, working at the forefront of the energy transition, which is an important challenge for our entire society.

To continue to meet this challenge, TenneT needs to transform. We are proud of what we have achieved so far, but to reach our goals, we must adapt and evolve. We need an organisation that allows our people to perform at their best with new ways of working, so that we're in the best possible shape to drive the energy transition, now and in the future. We also need to attract and retain the best people. Given the skills shortage in our industry and our demand for new hires, we simply cannot afford to overlook any talent. To fulfil our role, keep pace with respect to our culture and processes and sharpen our strategy.

We are organising for growth, adopting structures and processes to enable our employees to take faster and more decisive action, in step with the ever-faster pace of the energy transition. We want to accelerate decision-making with more personal responsibility, clearer roles, and work seamlessly across borders and departments. We are working to energise our people and our organisation, with an inclusive and safe environment where people enjoy coming to work. Our aim is to create a leadership model that empowers, inspires and creates growth opportunities, so everyone can perform at their best and work as one.

In 2019, the average number of full time equivalents increased to 1,442 (2018: 1,337), reflecting the growth of our investments. With our role in driving and realising the energy transition, we need to attract new talent and expand our workforce. However, recruiting talent is getting harder, particularly in the technical sector where there is strong competition for good people.

As the energy transition requires us and our partners to step up our efforts to recruit and train of technical staff, we have been working on new ways to attract talent. That is why we signed an agreement to train MBO students (Intermediate Vocational Education) for work on the energy transition. This is a new way for us to attract technical staff and help us build and maintain the future grid. The MBO-Covenant Klimaattechniek is a collaboration between the educational sector, government and grid operators and includes agreements to create more training positions and job guarantees for technical MBO students. We believe this will help alleviate the shortage of technical staff. Furthermore, we are also working with NGOs, such as the Refugee Talent Hub and Rising You. With the Refugee Talent Hub, we entered a partnership to uncover new talent. In 2019, we welcomed six new colleagues through the Refugee Talent Hub who will gain relevant work experience at TenneT. With Rising You, we are helping to train refugees to work high above ground, developing the talents we are looking for.

We value diversity in a wider sense, not only in terms of gender, religion and culture, but also socio-economic backgrounds, skills, knowledge, personality, experience and a balanced reflection of geographical backgrounds. We believe that a diverse working environment helps us perform better as a company and deliver better value for our stakeholders and society.
We strive to be a workplace where everybody feels safe and included. Safe not only in its physical sense, but also socially.

In 2019 we launched our TenneT Safety Vision 2022, based on two central themes: Safety Leadership and Safety Execution. The Safety Vision 2022 builds on TenneT's previous safety vision, with new targets to achieve Zero Harm. Developing Safety Leadership and keeping it up to date is a continuous effort. In 2019, two Safety Leadership Development pilots were conducted succesfull. In these initiatives al managers and employees of the department Grid Service Offshore and Grid Service Netherlands have been trained to stimulated Safe behaviour throughout the chain. The best practices and lessons learned are input for the Safety Leadership Development program for the other departments within TenneT. The two departments will build further on strong safety behaviour in 2020.

Safety is not just about TenneT’s own employees, but also about the employees of our contractors who perform work for us. As such, we involve our suppliers as much as possible in our safety improvement programmes. An example is the rollout of the Safety Culture Ladder (SCL) to our contractors. More than 100 TenneT contractors have now been certified for the SCL, and that number is rising steadily. TenneT also opted to be certified by the SCL and last year achieved SCL level 3 out of the 5 levels of the SCL. This level means that all relevant instruments within the organisation are correctly implemented and employees are familiar with the systems and how to use them. In 2019, we successfully passed the intermediate audit, which verified that we still complies to the results of the initial certification achieved in 2018.

Create value to transition to a low carbon economy

We cannot escape the fact that we work in the natural environment and depend on it. When we construct high-voltage connections to meet society’s energy demands and realise the energy transition, we need to work with nature. This is the case whether we work under or above ground, or in a marine environment. We also need to use natural resources, such as copper and steel, to realise our projects.

Our impact on nature is one of the factors in the balancing act we face in our business: we strive to deliver a reliable and secure supply of electricity, at an affordable cost for consumers while ensuring that we act as sustainably as possible. This means minimising our negative impacts and creating positive impacts wherever possible.

Looking at our business from a natural capital point of view, we create significant positive impact by connecting renewable energy sources to the electricity grid. This does however go hand in hand with impact and dependencies related to the use of energy sources, the natural environment and natural materials to build operate and maintain our grid. These are put to use in our projects to secure supply and to connect more and more renewable energy sources.

Our main carbon impact is related to our grid losses. There are many factors that influence the amount of these losses, but they are inherent to the transportation of electricity. We continue to look for opportunities that can reduce these losses.

A TSO-specific part of our carbon footprint is the leakage of SF_6 gas. This gas is used as a highly-effective insulator and extinguisher in switching installations. It allows for compact switching installations, which is often necessary in built-up environments. It is also necessary for interrupting currents in the networks. There is currently no proven technology concept for gases other than SF_6 at our (high) voltage levels. This makes it necessary for TenneT to use SF_6 in our operations.

However, we recognise the growing concerns about the use of SF_6 in our industry and noted reports in the media during 2019 focused on the climate impact of SF_6. We have been working on reducing our climate impact related to SF_6 for many years and realise that we need to accelerate this important work.

We define circularity as minimising our use of scarce materials, re-using materials where possible, and reducing waste in our operations. As we realise that operating fully circular is not yet possible and we therefore focus on contributing to a circular economy with feedback loops. As a large player in the energy transition we use copper, steel, aluminium and many more materials to expand our grid. In working with these materials, we aim to reduce our impact by taking steps with respect to circularity. For our raw material use, we are focussing our sights on copper as it is expected to become scarce in the near future and we have a high dependency on it in our operations.

As our assets are often located in areas of natural beauty, we are aware our business has an impact on biodiversity, ecosystems and the landscape. Our commitment to nature is to minimise our impact and protect and improve nature in the areas where we operate. Our Nature ambition is for our projects to have zero net impact on nature in 2020. Achieving this relates to creating positive impacts, such as promoting biodiversity at our substations.

Have a solid financial performance and reputation

Rising investments, financing costs and related grid fees all impact the tariffs we pass on to end users. We seek to limit this impact through stringent cost management and operational excellence. In addition, we also need our regulators to provide us with more cost-efficient incentives to develop innovative solutions for a smarter grid. This would be preferable to current incentives, which is to simply develop more assets. While we have a clear role in helping to drive the energy transition, it comes at a financial cost. Either through taxes, subsidies or tariffs, the public cost of the energy transition will rise.

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.

Results

In EUR million based on underlying financial information	2019	2018	Change	Change in %
Investments in tangible fixed assets	1,091	876	215	24.5%
Revenue	1,038	945	93	9.8%
EBIT	211	121	90	74.4%

In 2019, revenue increased as a result of significant investments in new assets over the past years. The regulatory regime ensures 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 addition, the revenue increased due to the CBb verdict of 28 november. The CBb ruled favourably for TenneT regarding both the WACC and the ex-post settlement of offshore OPEX costs.

Operating expenses remained stable with decreasing grid expenses being offset by higher depreciation costs. Depreciation costs increased due to implementation of IFRS 16 and increasing assets.

All in all, underlying EBIT increased from EUR 121 million in 2018 to EUR 211 million in 2019. The increase in EBIT is due to an increase in revenue and lower grid expenses, partly offset by higher depreciation. Last year's EBIT was further impacted by a write-off of assets under construction as a result of the termination of the Wintrack II - contract with Heijmans-Europoles B.V.

We continue to invest in our grid in order to maintain a high security of supply and to facilitate the energy transition. Capital expenditure (capex) totalled EUR 1,132 million in 2019 and increased by EUR 256 million compared to 2018 (EUR 876 million). The investments mainly increased due to investments in offshore projects in the Netherlands. Capex in 2019 for a significant part related to the following projects under construction: the Net on Sea (Borssele and Hollandse Kust), the cross-border interconnectors COBRAcable (Netherlands - Denmark) and the connection Bleiswijk - Vijfhuizen - Beverwijk.

Solve societal challenges with stakeholders and in partnerships

Working with our stakeholders and through partnerships, TenneT has an important role to play in driving the energy transition. To drive this revolutionary change for society, we need to work even more closely with our partners to share perspectives, develop new energy solutions and build support for the energy transition. This is one of the key ways we create value for society.

Our partners range from fellow European TSOs and DSOs, to governments, national regulatory authorities and political parties, knowledge and business partners and NGOs and local communities. Together, we are able to take the necessary steps by using our combined knowledge and experience to realise this transition in a way that is beneficial for society.

At government level, we actively engage in the public debate on the energy transition. We work closely with communities and governments, local, regional and national. For example, we participated as a partner in the Dutch climate agreement (Klimaatakkoord). We are one of the signatory members of this agreement and have committed ourselves to follow up on the measures that were agreed upon. Announced in June 2019, the agreement is the result of a multi-stakeholder consensus on how to transition to a low carbon economy, contributing to solutions that will help the Netherlands achieve its target to reduce carbon emissions by 49% by 2030.

Another example of our dialogue with our stakeholders is the first TenneT E-TOP we organised in 2019. Together with CEOs and other experts in the energy sector, we discussed the energy transition and how we can further accelerate. The aim of this meeting was to find opportunities for more cooperation on important issues with respect to the energy transition and system integration.

The infrastructure and technology needed to deliver electricity to the end user's door unavoidably impacts local communities. Our work involves a delicate balance: what is good for and desired by the broader society is not always welcome at a local level. We manage this by striving to act as a partner who puts our newly defined values of ownership, connection and courage into practice. Whenever we start a new project, our goal is to listen to the concerns and needs of those affected and provide all relevant information to evaluate and discuss. We want all stakeholders' views to be listened to and considered. At the same time, we want to build a better understanding of our work, developed patiently over time through clear and transparent communication. This is essential to our licence to operate and our reputation as a responsible corporate citizen.

For larger projects, we open dedicated information centres, going the extra mile to ensure everyone has the chance to make their voice heard and helping us minimise the impact of our work.

Working with our stakeholders also means enabling, encouraging and partnering with entities that can help us unlock flexibility in the energy market. We need to do this because matching supply and demand in a market with a higher infeed of renewable energy sources carries significant technological and capacity challenges. There are several areas where we are increasingly partnering up to overcome these challenges, including our collaborations to explore the integration of the electricity and gas power networks.

TenneT is working with Gasunie to find answers to the energy transition. A joint project, called Infrastructure Outlook 2050, proposes a scenario where the electricity and gas energy infrastructures are seamlessly integrated. One of the principal benefits of this is that it allows wind-generated electricity to be stored, after conversion into hydrogen gas using power-togas technology (electrolysis). Energy storage will be increasingly important to keep electricity supply and demand in balance and coping with the fluctuations in weather-dependent renewable energy sources.

As we rely on more renewable energy sources, TenneT is also working with partners to explore new digital solutions that can help us balance electricity supply and demand. To help to keep the grid balanced, TenneT is looking for new (decentralised) sources that can offer flexibility, such as household batteries and electric cars, and 'prosumers' who generate their own electricity from solar and wind installations.

By working with different suppliers and 'aggregators', and by applying innovative blockchain technology, the capacity of all these sources can be harnessed, and consumers can also participate directly in the energy market.

TenneT has also been working with other partners to unlock flexibility through new market concepts. An example is a partnership with the Dutch Distribution System Operators (DSOs) to launch GOPACS, a new smart solution to reduce congestion in the electricity grid by using flexible power from the market. It is an important step to mitigate capacity shortages in the electricity grid (congestion) and help keep the Dutch grid reliable and affordable. GOPACS is a good example of active collaboration between TenneT and regional grid operators.

We also work together with NGOs to realise our ambitions, specifically to lead as a green grid operator. We entered into key partnerships in which we share knowledge and information and define actions together to enhance our impacts. Examples of this include the "Vlinderstichting", with respect to our nature ambitions, MVO Nederland, where we work together in the "Groene netten" coalition to achieve certain common goals with other companies in the Infrastructure sector and the "Natuur & Milieu" and North Sea Foundation, where we extended a partnership to work together with respect to our offshore projects.

As a company with a strong social purpose, we also give back to society through several partnership initiatives, such as supporting sports activities for underprivileged children with the Johan Cruyff Foundation, and supporting nature through a partnership with the Nationale Park de Hoge Veluwe, located near our office in Arnhem. We also help to bring refugees and employers close together through our partnership with the Refugee Talent Hub.

Risk Management and Internal Control

Risk management and internal control objectives

Actively applying and advancing our risk management system, we periodically identify and continuously manage uncertainties (comprising of risks and opportunities) affecting the realisation of TenneT’s strategic and operational objectives. Applying top notch standards within TenneT's internal control system, we also enhance efficiency and effectiveness of day-to-day processes.

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

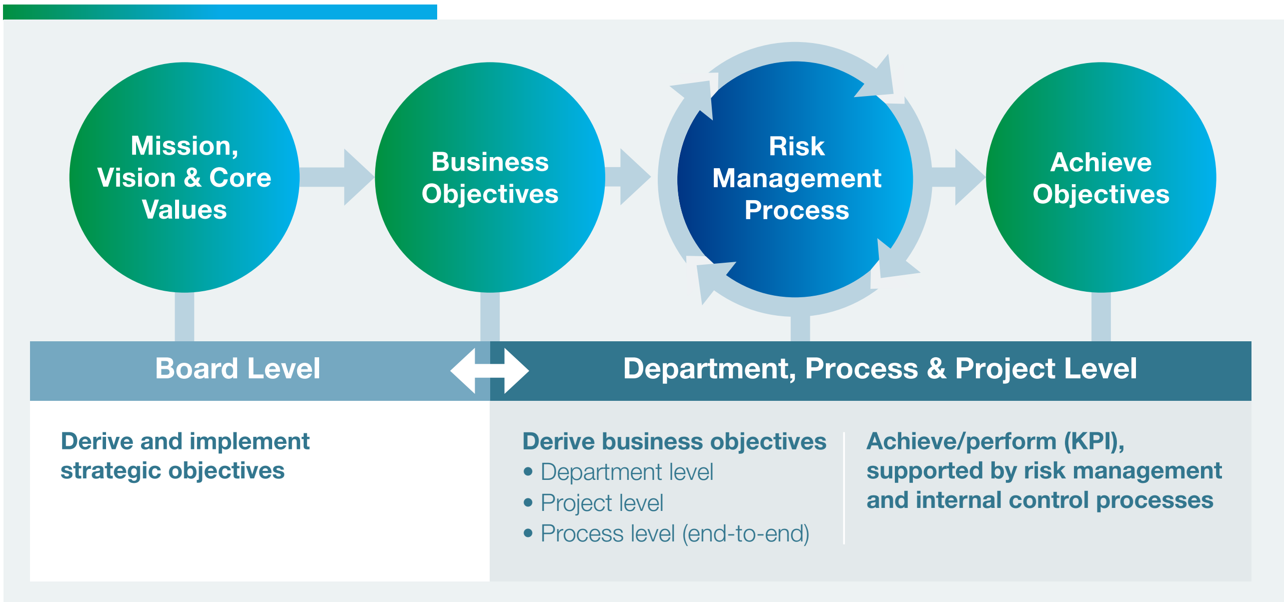
- Identification and assessment of uncertainties bearing potential negative or positive impact on strategic and operational (department, process and project) objectives
- Creating risk awareness and open culture of addressing risks and opportunities
- Providing a uniform risk management framework and tools to help the organisation take risk based decisions founded on relevant, reliable, timely, an information - also to ensure efficient priority based resource allocation
- Providing transparency to the boards, internal and external auditors as well as shareholders so they stay informed about most significant risks potentially impacting strategic objectives

TenneT's enterprise risk management and internal control frameworks are based on ISO 31000 and COSO standards and are compliant with the requirements of applicable laws and regulations like the Dutch Corporate Governance Code.

Enterprise risk management is clustered in:

- Strategic risk management
- Operational risk management
- Project risk management
- Risk & portfolio management
- Internal control

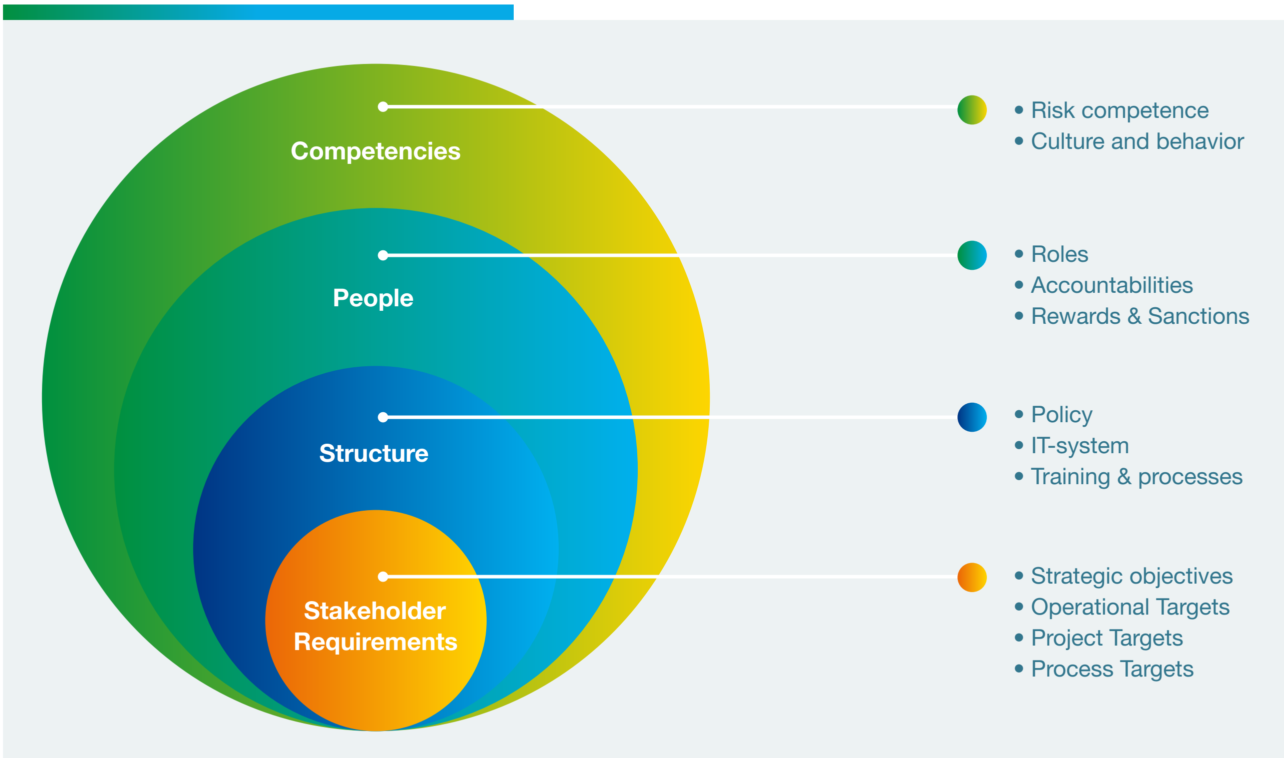
Risk management and internal control



At TenneT, the following factors are seen as crucial to realise full value of risk management and internal control for the organisation. They are designed in line with stakeholder requirements:

- Structure: policies (e.g. corporate enterprise risk management policy), IT-systems, reports, processes, etc.
- People: roles and accountabilities, profile, education and skills, etc.
- Competencies: risk culture and competence on management level, etc.

Key factors of Risk Management Framework



Principles of risk management are expected to be taken into account in all activities performed within and for TenneT. Furthermore, at the heart of the governance system, risk management and internal control is interlinked with other 2nd line of defence functions like risk transfer, business control, project control and compliance office as well as third line functions, such as internal audit.

Top down and bottom up dialogues and workshops as well as special topic analyses are facilitated by corporate risk management. Resulting outcomes provide management with insights relevant to take risk based decisions to support achievement of objectives set on all organizational levels.

Strategic risk management (SRM)

SRM focusses on future events which may influence strategic objectives in positive or negative ways. 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 (ORM)

Operational risks affecting the various business units and corporate departments are - inter alia - documented and evaluated in the course of interviews and workshops with senior management to assess the adequacy of mitigating actions. TenneT's corporate risk management & internal control team facilitates the organisation to review its risks, opportunities and related responses. TenneT's updated operational risk position is part of the Letter of Representation (LoR).

Project risk management (PRM)

To meet challenges arising from the enormous investment portfolio and related objectives around ten years ago TenneT started to implement project risk management, first with a focus on large projects. PRM aims at enhancing the chance of realising project goals on time, budget and quality. For all large projects, dedicated project risk managers review and manage risks together with project leads systematically within the quality and uniformity standards safeguarded by corporate risk management. Project risk management has reached a high maturity level within TenneT.

Risk & portfolio management

Furthermore to strengthen the security of supply, TenneT's asset management uses condition monitoring and risk based assessments to plan maintenance and investments. 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.

Internal control (IC)

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.

Thus, we strive for a high-quality and harmonised TenneT wide internal control framework. Our framework is gradually shifted from a core finance perspective towards a business objective driven approach with the inclusion of core business- and non-financial reporting processes.

Compliance and integrity

TenneT intends to provide all parties with guaranteed, non-discriminatory access to our transmission grid. With Compliance & Integrity we aim to prevent, detect and respond to compliance risks that threaten the realisation of TenneT's strategy and objectives and may lead to economic or reputational harm. Next to having clear guidance by means of corporate and local policies (like the Supplier Code of Conduct, Policy on Gifts & Hospitality, Whistleblowing Policy, Conflict of Interest Policy and Investigation Policy), the right tone at the top, leadership principles and a training & communication plan are essential elements of a well-functioning Compliance & Integrity management system.

As part of Transforming TenneT, TenneT revisited the organisational design of the company in order to be prepared for future growth. As part of the currently ongoing reorganisation, it is envisaged that the Data Protection officers will become part of the Compliance & Integrity department. Furthermore, the team is expected to be strengthened with additional resources. The Head of Compliance & Integrity will report directly to the CEO and form part of the Senior Leadership Team. Beginning 2019, a new head Compliance & Integrity Officer was appointed on an ad interim, part-time basis, because of the departure of the former lead. As of October, the new head is fulltime in function.The regional Compliance & Integrity officer in Germany has not changed.

As part of our compliance management system TenneT has set up a compliance & integrity committee that deals with compliance and integrity issues, comprising members from relevant functions (Risk Management & Internal Control, Internal Audit, Corporate Safety & Security, Human Resources Corporate, trusted counsellors and Compliance & Integrity officers). The objective of the committee is to share company information on compliance and integrity risks, raise awareness and remediate risks by taking action. In 2019, the committee met twice.

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. 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 addition, employees as well as external parties can report compliance and integrity issues through an independent whistleblowing portal freely accessible on the internet.

In the current year, besides day-to-day management of compliance risks and supporting, advising and handling compliance cases, the project to align the existing compliance management system with the ISO 19600, a best practice for international Compliance Management Systems (CMS), has progressed. It is foreseen that the outline of the CMS and a multi-year strategy and implementation plan will be in place ultimately by mid-2020. In addition, the updated Supplier Code of Conduct and Conflicts of Interest Policy have been implemented.

In April, for the first time a company-wide, mandatory e-learning about compliance & integrity and data protection was rolled out. Next e-learnings on REMIT (Regulation on wholesale Energy Market Integrity and Transparency) and information security will be launched beginning 2020. E-learnings on compliance related topics will be part of a training curriculum and of the HR performance management system, i.e. a personal 'licence to operate'.

The Compliance & Integrity officers have received more than one hundred requests for advice throughout the year. The majority of the questions relate to gifts & hospitality and conflicts of interest, but also relate to interpretation of legal directives and guidelines, information security and integrity matters.

No fraud, bribery nor corruption breaches with material impact were identified by TenneT in 2019. 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.

Risk appetite

Risk appetite is the amount and type of risk TenneT is willing to take or not to take, in pursuit of value, relative to its major business objectives. TenneT's risk appetite has been set by the Executive Board for each of our strategic pillars. It is communicated by management, endorsed by the Executive Board and disseminated throughout the company. In terms of the amount 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).

 Management Board report

The following graph summarises risk appetite and trends on risks and opportunities assessed by the Executive Board.

Risk appetite and trend score

Strategic goal	Goal description	Risk Appetite (Low – High)	Risk Trend (- +)	Opportunities Trend (- +)
Drive the energy transition	as a green grid operator and a thought leader.			
Energise our people and organisation	with an inclusive and safe environment where people enjoy coming to work.			
Secure supply today and tomorrow	by maintaining the grid to meet reliability targets and operating it to its maximum capability.			
Safeguard our financial health	by implementing a regulatory framework to support our strategy, and delivering a return in line with what our capital providers expect, and raising the necessary external financing.			

Key risks

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

Strategic risks

Deliver a high security of supply

In today's cross-border energy market, security of supply is enhanced by the interconnectivity of the European transmission grid. However, misalignment in the energy policies of individual European countries – such as stalling plans to invest in nuclear power, stopping the development of coal or lignite plants, or increasing the development of renewables – is having a significant impact on the entire European grid. Dealing with European grid issues has become more of a daily challenge, especially as the further integration of renewables and reduced availability of conventional energy production has increased the likelihood of critical situations. This is particularly likely during the autumn and winter. To address this requires international alignment of political targets. TenneT works towards this by engaging in and providing transparency in political discussions.

An example of how political decisions can impact us is the Clean Energy Package (CEP), which is an initiative of the European Commission. The CEP will come into force in 2020 and includes measures with respect to the electricity market. The effect of some articles of the CEP may endanger our security of supply as congestion is likely to increase and could be in conflict with the decarbonisation targets of the member states. In close cooperation with the ministry and regulator we have defined actions to be compliant to the CEP. We have agreed structural congestion reports and defined starting values for capacities on our network elements. Our ministriy has provided an action plan to reach 70% market capacity on all critical network elements. We have also submitted two derogations in order to prepare our organisation to be able to meet the yearly increased targets.

Cyber risks are an ongoing risk in our sector. To ensure we can handle cyber-related risks and any repercussions, we continuously work on understanding our cyber risks (and how best to handle them) as a joint effort between internal and external allies. We have ISO 27001 certification ongoing and we also carry out penetration tests and crisis management exercises every year.

Ensure critical infrastructure for society

Society is demanding a swift transition towards renewable energy. Our investment portfolio causes a high workload throughout the entire supply chain and we face scarcities in our supplier markets due to strongly increasing market demand for power transmission components and especially for overhead lines and cables. This high workload is amplified by the lack of skilled staff available to us and our suppliers in the labour market. Together with the high degree of organisational complexity our projects have, these factors present a viable risk to realising our investment portfolio and achieving a successful return on investment without delay and against affordable costs.

To mitigate this challenge, we use framework agreements, bulk orders, standardisation, increased storage capacities, improved demand forecasting and we actively support the development of new technologies (e.g. 525 kV DC-cables) and look for alternative supplier and service providers. We also employ external project management service providers to staff construction projects in the onshore grid. To counterbalance a lack of internal resources, we pro-actively perform analyses to ensure adequate succession planning.

Ageing infrastructural assets are a challenge in realising the investment portfolio of an asset-driven company like TenneT. We continuously work to optimise our organisational processes, including lean decision-making, an emphasis on employee training, and using probabilistic schedule analyses. We make additional resources available for maintenance work and are increasing the efficiency and flexibility of our maintenance programme by monitoring and simplifying internal processes. We consider bottlenecks in outage planning in addition to an increasing duration of unplanned outages still to be a risk.

As a company that builds critical infrastructure in the natural environment, our engagement with stakeholders treads a fine line between societal and local interests. What is good for and desired by society is not always welcomed by the communities affected by our projects. We communicate with a large number of stakeholders, assess different technological options, routing options, interdependencies of work packages between different projects and challenges in the political environment. Delays in licensing (especially mandatory permits issued by authorities) as well as challenges arising from the use of innovative technology (e.g. newly designed 525 kV cabling) can also throw a project off schedule. TenneT works to mitigate these risks by identifying possible constraints and the cost of viable solutions in the early stages of the decision-making process, communicating transparently with regional stakeholders, working closely with authorities, enforcing high quality standards and closely monitoring its suppliers and deliverables. We are aware that we will not always overcome local opposition.

There are certain environmental developments in Europe, also related to our service area, that may pose a risk and delay projects. These include various European government policies on perfluoroalkylated substances (PFAs) and nitrous oxide. This is embedded in our daily operation.

Create a sustainable workplace

Without the right culture, structure and common understanding throughout all layers of our organisation, TenneT might not be able to execute the strategy as intended. Furthermore, the impact of "Transforming TenneT" on employee perception of job security could also impact the motivation of our workforce. As such, ongoing dialogue and open communication with our employees are essential in this perspective. Transforming TenneT is a clear objective for us, and next to this we remain focussed on the development and mobility of our people.

One key risk both in the shorter and longer term is the scarcity of qualified staff. To address this risk, we focus on tailored sourcing approaches and are aiming on building an image of TenneT as an attractive employer, as well as actively work on internal succession planning. We are interacting more with potential employees, actively participating in career events and reaching out to students during their studies. We are investing in our future talent pipeline, including initiatives to attract potential employees such as our International Trainee Programme and our High Voltage Trainee programme.

Working with high voltages and in capital-intensive projects can mean an increased risk of injuries and even fatalities. This also applies to, perhaps even to a greater extent, the work our suppliers are performing. They might consider and apply safety values that are different to the ones at TenneT. We continue to explain what safety means at TenneT and build awareness of this among subcontractors.

Create value to transition to a low carbon economy

The scarcity of natural resources (such as copper and aluminium) may jeopardise our ability to complete projects, also against affordable costs. As such, we have defined a policy and actions for our circular ambitions. We are stepping up our efforts to use the resources we need in our
daily operations with maximum efficiency and raising the bar on our circular ambitions. That is why we are striving to reduce our use of virgin copper in our asset management activities. Our initial focus is on our copper usage. We will then use this information to determine what actions we need to take to reach our goals.

Our circular ambitions are a part of our overall CSR ambition. Together with our stakeholders, such as our contractors, we strive to realise these ambitions. We work together with contractors and sometimes we need to challenge them to help us to realise our goals. However, this is not always easy as there is quite some pressure from different stakeholders to build and maintain our assets in a way that is affordable and putting demands on the market that they cannot fulfil is contra productive. To us, the challenge is to balance this out and try to raise the bar at the
same time for us but also for our contractors to find a solution that meets our ambition and those of our stakeholders.

We have also noticed that our stakeholders are increasingly paying attention to our climate-related risks and opportunities. Physical climate-related risks with respect to our assets include drought and higher temperatures significantly increasing the risk of wildfire, resulting in damage to substations and over-headlines, which in turn causes outages. With respect to climate adaptation, we are working together with other authorities. For instance, we are cooperating with national and local authorities to protect our assets against rising sea levels.

Have a solid financial performance and reputation

In order to fund our investment portfolio and raise the required debt financing, TenneT needs to secure a sufficient credit rating by attracting sufficient additional equity. At the same time, society and politicians are critically assessing investments by the Dutch state. As such, we work closely together with the Dutch Ministry of Finance and continuously work on alternative solutions for financing.

Our revenues are based on the regulatory framework. The growing sentiment against the increasing cost of energy is putting more pressure on the reimbursement system. Adverse changes in the regulatory system might impact our performance.

Solve societal challenges with stakeholders and reputation

To be able to drive the energy transition and lead as a green grid operator, it is important to create societal acceptance of the energy transition. Lack of acceptance could lead to the
inability to fulfil our ambitions and delay the transition to a low-carbon economy.

Societal acceptance of our assets remains important. TenneT's construction and operation of substations, underground cables and transmission lines, and investments in sustainable energy solutions may affect a large number of people and interests. Because grid expansion projects take years to develop and cost hundreds of millions of euros, the impact of project delays, difficulties or shutdowns may be significant.

The expansion of our high-voltage electricity grid may significantly alter landscapes in a way that can affect the livelihood of surrounding residents. The debate with respect to potential health risks related to our overhead transmission lines and magnetic fields is ongoing. As TenneT, our aim is to comply with rules and regulations and take sufficient caution in the construction and operation of our assets. We are also currently working together with the respective authorities and other involved stakeholders to include their views as we in the process of updating our policy with respect to magnetic fields.

In our view, forming long-term partnerships within and outside the TSO playing field is an opportunity to drive the energy transition. Initiatives like crowd balancing need strong partnerships between several industries and the public domain.

Regulatory risks

The following table details TenneT's most important regulatory risks.

Regulatory risk	Risk-mitigating actions
• Inability to meet exacerbating efficiency targets imposed by incentive regulation. Especially taking into account a strongly growing company and the need of investments in innovation.	• TenneT performs regular reviews of processes and organizational structure and introduced lean management. Additionally, TenneT scrutinizes the results of efficiency audit by the regulators and disputes or starts litigation, if needed.
• TenneT is unable to achieve a reasonable return on its invested capital as the regulated return continues to decline due to the low interest environment and stricter regulatory incentives on its total expenditures.	• In the Netherlands, TenneT constructively discusses with the ACM the regulatory parameters for the next regulatory period. In general, no material changes are expected in ACM's WACC approach. In Germany the discussions focus on the remunera-tion of investments.
Europe	
• The 'Clean Energy Package' (CEP) has entered into force. It requires a.o. that TSOs provide to the market 70% of the total cross-border transmission capacity, a number hardly possible without extensive and costly redispatch activities. The CEP however allows a linear fade-in until 2024 if an action plan is provided by governments. This plan might impose costly and hard-to achieve measures on TenneT. Other provisions of the CEP have a financial impact e.g. how TSOs have to use congestion revenues	• Advocate at the ministry and regulator that redispatch and other costs are reasonably covered since they arise as an effect of changes in European law. Constantly follow up the development of the action plan both in the making (until end 2019) and in the implementation to ensure technical and financial feasibility of the proposed actions within the required timeframe. In addition, TenneT puts resources in the relevant working groups at European level (ENTSO) to shape methodologies which are developed at that level such that they are not harmful for TenneT.
The Netherlands	
• The ACM has initiated the start of the next regulatory period (starting 2022 with an expected duration of 5 years). The ACM will set the regulatory parameters relating a.o. to the efficiency (based on the international TSO benchmark), cost of capital and recovery of operational expenditures such as procurement of energy and ancillary services. There is the risk that the ACM sets too strict regulatory incentives, particularly relating to efficiency.	• TenneT is in a constructive dialogue with the ACM to ensure reasonable efficiency targets and cost recovery. However, similar to the 6th regulatory period (2014 - 2016), there is a risk that TenneT will need to dispute the applied efficiency targets before court. TenneT is advocating the regulation includes forward looking challenges, such as cost recovery for congestion management and positive incentives for innovation.

Operational risks

The following table details TenneT's most important operational risks.

Operational risk	Risk mitigating actions
• Limited availability of adequate resources – external and internal workforce, material and services	• Strategic procurement planning and development based on deep demand analyses • Further integration of external service providers (e.g. via EPCm) • Further develop employer branding and recruiting process • Development and qualification of new suppliers and markets
• Risk of outages caused by progressing obsolescence of high voltage equipment	• Adapt reinforcement strategy to current developments • Continuously improve the asset risk based approach • Bundled project portfolio with optimized outage requirements
• Lacking pro-active safety culture and behavior. In conjunction with high pressure on people and projects that might increase the risk of work-related incidents and accidents	• Further development of safety leadership and behavior • Certification on Safety Culture Ladder Level 4
• (Cyber) Terrorist or state attack against critical infrastructure	• Implementation and certification of Information Security Management System (ISO 27001) • Implement further security processes based on existing anomaly detection • Improvement projects focusing on protection of physical assets • Develop disaster recovery plan for IT services and performing regular tests
• Public resistance and political opposition against large DC projects resulting in significant project delays	• Early involvement of stakeholders, proactive consultation about identified issues and transparent communication • Intense talks with political stakeholders on all levels in order to guarantee efficient planning

Reporting risks

The following table presents TenneT's most important reporting risks.

Reporting risk	Risk-mitigating actions
• 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.	• Internal control framework, including control self-assessments and Letter of Representation procedure. • Training of personnel. • Verification of compliance with legal requirements and auditing standards by external auditor and Internal Audit.
• Incorrect (regulatory) reports or information to ACM and/or tax authorities.	• 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	Risk-mitigating actions
• Non-compliance with European or national laws and regulations, e.g. regarding health, safety and environment, labour, tendering and energy markets.	• Actively involve experts from Legal Affairs, Procurement, Human Resources, Safety & Security, Regulation, etc. Monitoring by Compliance via the LOR procedure. • Train employees
• Risk of fraud and/or conflict of interest.	• Corporate Gifts & Hospitalities policy • Increase cultural awareness via internal communication messages and face-to-face training sessions
• Non-Compliance with Code of Conduct	• 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.
• Non-compliance with bilateral agreements between TenneT and other TSOs, suppliers, customers, etc.	• Ensure adequate registration of decisions and contracts by Legal Affairs and other departments involved.
• Non-compliance with GDPR	• Company-wide process- and data analyses. Awareness campaigns and trainings and ISO 27001 certification
• Non-compliance with permits and licenses.	• Provide regularly training and awareness programs.
Financial compliance	Risk-mitigating actions
• Non-compliance with financial and tax laws and legislation, e.g. IFRS, local GAAP, the Dutch Corporate Governance Code, etc.	• 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.
• Non-compliance with financing agreements.	• Frequent knowledge update by means of training, external audit/ expert reviews, etc. • Quality control by participations control and / or treasury
Technical compliance	Risk-mitigating actions
• Non-compliance with electricity laws and technical codes, ENTSO-E operational handbook, electrical safety regulations and standards, etc.	• Actively involve experts from Asset Management and System Operations. Assessments by the technical compliance and quality officer. Use of four eye-principles. • Cooperate with regulatory authorities through the Corporate Asset Owner department. • Involve authorised electrical safety experts and technical strategists. • Technical Audits

Consolidated financial statements

Consolidated statement of comprehensive income

For the year ended 31 December (EUR million)

	Notes	2019		2018	
Revenue	3.1		**811**		**804**
Grid expenses	3.2.1	-393		-433	
Personnel expenses	3.2.2	-91		-89	
Depreciation and amortisation of assets	4.1, 4.2, 5.1	-243		-190	
Other operating expenses	3.2.3	-91		-86	
Other gains/(losses)		-1		-22	
Total operating expenses			**-819**		**-820**
Share in result of joint ventures and associates	5.3		-		3
Operating (loss)/profit			**-8**		**-13**
Finance income	3.3	11		14	
Finance expenses	3.4	-42		-31	
Finance result			**-31**		**-17**
Profit before income tax			**-39**		**-30**
Income tax expense	3.5		-		17
(Loss)/Profit for the year			**-39**		**-13**
Other comprehensive income (net of tax)			**-**		**-**
Total comprehensive income			**-39**		**-13**

Consolidated statement of financial position

For the year ended 31 December (EUR million)

Assets	Notes	2019	2018
Non-current assets			
Tangible fixed assets	4.1	5,746	4,864
Right-of-use assets	4.2	129	-
Intangible assets	5.1	109	66
Investments in joint ventures and associates	5.3	2	3
Other financial assets	5.4	383	375
Total non-current assets		**6,369**	**5,308**
Current assets			
Inventories	5.9	4	5
Account- and other receivables	5.5	151	438
Cash and cash equivalents	6.4	81	71
Total current assets		**236**	**514**
Total assets		**6,605**	**5,822**

Consolidated statement of financial position

For the year ended 31 December (EUR million)

Equity and liabilities	Notes	2019	2018
Total equity	6.1	**3,293**	**2,922**
Non-current liabilities			
Borrowings	6.3	2,114	2,189
Contract liabilities	4.3	286	263
Deferred tax liability	3.5	43	100
Provisions	5.7	74	16
Lease liabilities	4.2	125	-
Total non-current liabilities		**2,642**	**2,568**
Current liabilities			
Borrowings	6.3	75	-
Provisions	5.7	25	28
Other financial liabilities	5.8	79	71
Lease liabilities	4.2	6	-
Account- and other payables	5.6	485	233
Total current liabilities		**670**	**332**
Total equity and liabilities		**6,605**	**5,822**

Consolidated statement of changes in equity

For the year ended 31 December (EUR million)

	Notes	Paid-up and called-up capital	Share premium reserve	Retained earnings	Unappropri-ated result	**Total equity**
At 1 January 2018		**100**	**1,380**	**1,336**	**120**	**2,936**
Total comprehensive income		-	-	-	-13	-13
Transition effect IFRS 9		-	-	-1	-	-1
Appropriation remaining prior year result		-	-	120	-120	-
At 31 December 2018		**100**	**1,380**	**1,455**	**-13**	**2,922**
Total comprehensive income		-	-	-	-39	-39
Capital contributions		-	410	-	-	410
Appropriation remaining prior year result		-	-	-13	13	-
At 31 December 2019		**100**	**1,790**	**1,442**	**-39**	**3,293**

Consolidated statement of cash flows

For the year ended 31 December (EUR million)

	Notes	2019		2018	
Operational activities					
Operating profit			**-8**		**-13**
Non-cash adjustments to reconcile operating profit to net cash flows:					
Depreciation, amortisation and impairment of assets	4.1, 4.2, 5.1	243		190	
Result on disposal of assets	4.1	2		22	
Share in profit of joint ventures and associates	5.3	-		-3	
Increase/(decrease) in deferred income	4.3	23		20	
Movements in provisions and other assets	5.4, 5.7	-4		-2	
			264		**227**
Working capital adjustments:					
(Increase)/decrease in account- and other receivables	5.5	-2		-29	
(Increase)/decrease in inventories	5.9	1		1	
Increase/(decrease) in account- and other payables	5.6	149		676	
Increase/(decrease) in contract liabilities	4.3	-		-	
Increase/(decrease) in current financial liabilities	5.8	8		10	
			156		**658**
Net cash flows from operating activities			**412**		**872**
Investing activities					
Purchase of tangible and intangible fixed assets	4.1, 5.1	-1,093		-876	
Dividends received from joint ventures and associates	5.3	1		3	
Interest received	3.3	11		11	
Net cash flows used in investing activities			**-1,081**		**-862**
Financing activities					
Proceeds from capital contributions	6.1	690		-	
Proceeds from borrowings	6.3	-		-	
Payment of lease liabilities	4.2	-11		-	
Interest paid	3.4	-		-	
Net cash flows from financing activities			**679**		**-**
Net change in cash and cash equivalents			**10**		**10**
Cash and cash equivalents at 31 December	6.4	81		71	
Cash and cash equivalents at 1 January	6.4	71		61	
			10		**10**

Notes to the consolidated financial statements

We are continuously improving our financial reporting to make it more relevant and understandable to our stakeholders. These financial statements focus on the key (financial) topics for 2019. Like last 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 ⓘ, while key assumptions and estimates are identified by using in front of the header.

1. BASIS FOR REPORTING

The accounting policies describe our approach to recognising and measuring transactions and balance sheet items in our financial statements. Accounting policies including new European Union (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 judgements 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 primary users of these financial statements.

1.1 General

TenneT TSO B.V. ("The company" or "TenneT") and its subsidiaries as an electricity transmission system operator (TSO) have the principal tasks to provide (1) power transmission services, by constructing and maintaining a robust high-voltage grid and (2) system services, by maintaining the balance between supply and demand of electricity 24 hours 7 days a week and (3) facilitating the market in order to have a liquid, stable electricity market with prices in line with the surrounding countries. These activities are governed by the provisions of relevant legislation in the Netherlands. Regulatory authorities oversee TenneT's compliance with these provisions. TenneT Holding B.V. holds the entire issued share capital of TenneT TSO B.V. Our head office and legal seat is located in Arnhem, the Netherlands.

These consolidated financial statements for the year ended 31 December 2019 were prepared and authorised by our Management Board for issue on 9 March 2020. For regulatory, risk management and treasury activities TenneT relies on support from corporate departments of TenneT Holding B.V. These activities are executed under responsibility of the management board of TenneT TSO B.V.

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 Dutch Civil Code. The company financial statements for TenneT TSO B.V. have been prepared in accordance with the provisions of Part 9, Book 2, of the Dutch Civil Code.

These consolidated financial statements have been prepared on a going concern basis. The going concern basis presumes that TenneT has adequate resources to remain in operation, and that the Management Board intend it to do so, for at least one year from the date of the end of the reporting period.

These consolidated financial statements are prepared on a historical cost basis, except for derivative financial instruments (if any) which are 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.

1.3 Changes in EU-endorsed published IFRS standards and interpretations effective in 2019

Significant new and amended standards adopted

TenneT has not adopted any standard, interpretation or amendment that has been issued but is not yet effective.

TenneT is applying IFRS 16 Leases for the first time in 2019. The nature and impact is described below.

IFRS 16 was issued in January 2016 and replaces IAS 17 Leases, IFRIC 4 Determining whether an Arrangement contains a Lease, SIC-15 Operating Lease-Incentives and SIC-27 Evaluating the Substance of Transactions Involving the Legal Form of a Lease. IFRS 16 sets out the principles for 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 and an asset representing the right to use the underlying asset during the lease term. Lessees are required to separately recognise the interest expense on the lease liability and the depreciation expense on the right-of-use asset in the statement of income.

Lessees are also required to remeasure the lease liability upon the occurrence of certain events (e.g., a change in the lease term, a change in future lease payments resulting from a change in an index or rate set to determine those payments). The lessee will generally recognise the amount of the remeasurement of the lease liability as an adjustment to the right-of-use asset.

IFRS 16 requires lessees and lessors to make more extensive disclosures than under IAS 17.

TenneT has adopted IFRS 16 using the modified retrospective approach. Under this approach, the cumulative effect of initially applying IFRS 16 is recognised as an adjustment to equity at the date of initial application (e.g. 1 January 2019). Comparative figures for the year ended 31 December 2018 are not restated to reflect the adoption of IFRS 16 but instead continue to reflect the lessee's accounting policies under IAS 17 Leases.
TenneT applied the available practical expedients wherein it:
- Used a single discount rate to a portfolio of leases with reasonably similar characteristics;
- Applied the short-term leases exemptions to leases with lease term that ends within 12 months of the date of initial application;
- Excluded the initial direct costs from the measurement of the right-of-use asset at the date of initial application;
- Applied the low value leases exemptions to leases for which the underlying asset is of low value..

TenneT has elected to measure the right-of-use asset for an amount equal to the lease liability, adjusted by the amount of any prepaid or accrued lease payments relating to that lease recognised in the statement of financial position immediately before the date of initial application. TenneT has elected not to apply IFRS 16 for contracts that were not previously identified as containing a lease applying IAS 17 and IFRIC 4.

In summary, the impact of adopting IFRS 16, on 1 January 2019 (note 4.2) on total assets was EUR 109 million as we recognised 'right-of-use assets' as part of the non-current assets. Correspondingly, we recognised an aggregated EUR 109 million for the items 'lease liability (long)' and 'lease liability (short)'. The impact on equity was EUR nil.

IFRS standards issued but not yet effective and adopted

The IASB made amendments to the definition of materiality in IAS 1 and IAS 8. The new definition reads: Information is material if omitting, misstating or obscuring it could reasonably be expected to influence the decisions that the primary users of general purpose financial statements make on the basis of those financial statements, which provide financial information about a specific reporting entity. In line with the amendments we consider an item material if, in our view, it could reasonably be expected that the item has impact on the economic decisions of users of our general financial statements. The amendments to IAS 1 and IAS 8 are effective for annual periods beginning on or after 1 January 2020 and must be applied prospectively. Earlier application is permitted. No significant impact on the financial statements is expected.

1.4 Basis for consolidation

The consolidated financial statements incorporate the financial statements of TenneT TSO B.V. and its subsidiaries as at 31 December 2019. A list of the legal entities included in the consolidation is included in note 7.3.

Subsidiaries are consolidated from the date of acquisition, that being the date on which control is obtained, and continue to be consolidated until the date when such control ceases. The financial statements of the 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 in 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) liabilities and any non-controlling interest in the former subsidiary at the date control is lost (including the cumulative translation differences). Furthermore, the fair value of the consideration received, the fair value of any investment retained and any surplus or deficit in the statement of income 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.

1.5 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.
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. Actual results could differ from these estimates. Significant items containing estimates and assumptions are as follows:

Item	Note	Estimate/assumptions
Tangible fixed assets	4.1	Estimate of remaining useful life
Right-of-use assets and lease liabilities	4.2	Estimate of discount rate and expected extention or accelerated termination date
Intangible assets	5.1	Estimate of recoverable amount and remaining useful life
Account- and other receivables	5.5	Estimate of expected credit loss
Grid expense payable	5.6	Estimate of electricity usage and energy prices
Provision for environmental management and decommissioning	5.7.1	Estimate of removal costs, removal dates, discount rate and price increases in the period leading up to removal
Tariffs related provision	5.7.2	Estimate of electricity usage and number of parties
Other provisions	5.7.3	Financial, actuarial, demographic assumptions and probability of cash outflow

1.6 Foreign currency

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

1.7 Changes in presentation

As of 2019, the intangible assets under construction are no longer presented as part of the tangible fixed assets under construction but separately as part of the intangible assets. This change affected the classification in the consolidated statement of financial position, prospectively impacting the line items tangible fixed assets and intangible assets prospective for EUR 26 million. There was neither an impact on the consolidated statement of income nor on total equity.

2. UNDERLYING FINANCIAL REPORTING ANALYSIS

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

We generate our revenue from our regulated operating activities in the Netherlands. Therefore close collaboration with our respective regulator to obtain agreements that provide reasonable compensation for the risks we face is key to us. Our involvement in certain limited non-regulated activities are closely related and ancillary to our core tasks.

2.1 Underlying financial information

Our Management Board is the chief operating decision-making body of the company (as defined by IFRS 8 ‘Operating segments’). Periodically, it monitors the performance of the respective operating segments for the purpose of performance management and decision making 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 of these activities.

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 returned trough 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.

For management information purposes, the performance of our regulated activities in the Netherlands is considered one segment (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.

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 set at arm’s length in a manner similar to transactions with third parties. These intercompany transactions are eliminated in the consolidation.

	2019					2018				
(EUR million)	**Revenue**	**EBIT**	**Investments**	**Assets**	**Liabilities**	Revenue	EBIT	Investments	Assets	Liabilities
TSO Netherlands	1,038	211	1,133	7,075	4,014	945	121	876	6,165	3,646

For an analysis of the underlying results see the 'Financial performance' section of our Management Board report.

2.2 ⓘ Accounting policies applied for underlying financial information

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

Matching is achieved by recognizing 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 regulated assets or liabilities, respectively. Consequently, a regulated asset is recognised in underlying financial information in respect of permitted reimbursements of current year expenses in future year's tariffs. 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 some investments were financed via auction receipts resulting from auctioning available capacity on cross-border interconnections (see 2.3). The different accounting treatment of the regulatory deferral accounts results in a different value of these assets.

2.3 Regulatory deferral accounts: reconciliation to IFRS figures

The difference between the underlying financial information and IFRS reported figures is related to the recognition of regulated assets and liabilities, auctions receipts, the measurement of tangible fixed assets and maintenance of energy balance. Consequently, also the aforementioned results in different deferred tax balances in underlying financial information compared to IFRS reported figures. No other differences between underlying financial information and IFRS are applicable.
In the IFRS financial statements, revenue from contracts with customers is recognised when control of the goods or services is transferred to the customer at an amount that reflects the consideration to which the Group expects to be entitled in exchange for those goods or services. In the underlying financial information revenues are recognised according the permissible tariff decision adopted by the regulator. By doing so, volume and post calculation differences are directly matched to the related costs and therefore provide better insight to management for steering TenneT.

Underlying financial information is reconciled to reported IFRS figures as follows:

2019 (EUR million)	Revenue	EBIT	Assets	Liabilities	Recovery/ reversal period (years)
Consolidated underlying information	**1,038**	**211**	**7,075**	**4,014**	
To be settled in tariffs	-304	-303	-246	-2	0 - 5
Auction receipts	62	62	-	-470	0 - 4
Investment contributions	-10	-10	-	-239	0 - 29
Maintenance of the energy balance	25	25	-	-34	0 - 1
Difference in tangible fixed assets	-	7	-195	-	0 - 29
Effect on deferred tax balances	-	-	-29	43	0 - 29
Consolidated IFRS financial statements	**811**	**-8**	**6,605**	**3,312**	

2018 (EUR million)	Revenue	EBIT	Assets	Liabilities	Recovery/ reversal period (years)
Consolidated underlying information	**945**	**121**	**6,165**	**3,646**	
To be settled in tariffs	-255	-256	-123	-1	0 - 5
Auction receipts	96	96	-	-555	0 - 8
Investment contributions	-10	-10	-	-249	0 - 30
Maintenance of the energy balance	28	28	-	-41	0 - 1
Difference in tangible fixed assets	-	8	-203	-	0 - 30
Effect on deferred tax balances	-	-	-17	100	0 - 30
Consolidated IFRS financial statements	**804**	**-13**	**5,822**	**2,900**	

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 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'. The expenses have to be settled in future tariffs in coming years.

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 (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. On 19 November 2019, an addendum to the original power agreement was signed. The agreements relate to the restitution of existing auction fees in order to limit the increase in net tariffs in 2020.

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. Following the release scheme as described above.

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 offset in transmission tariffs in the subsequent year. Consequently, these amounts are recorded as a liability and settled in the subsequent year 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. The difference in asset value is related to the decrease in value of the NorNed assets in 2015 (EUR 232 million) due to regulatory changes as recognised under IFRS. The proceeds generated by operating the NorNed cable are incorporated in the tariffs.

Depreciation tangible assets

Between Underlying and IFRS there is no difference in depreciation method, but the amount of depreciation differs due to an impairment under IFRS of the NorNed cable in 2015 of EUR 232 mln which is not recognised under Underlying.

3. RESULTS FOR THE YEAR

This section comprises notes related to the revenue, operating expenses and results for the year as determined under IFRS.

3.1 Revenue

(EUR million)	2019	2018
Connection and transmission services	634	594
Maintenance of energy balance	68	72
Operation of energy exchanges	68	102
Other	41	36
Total revenue IFRS	**811**	**804**

3.1.1 Connection, transmission and system services

Revenue from connection and transmission is regulated by ACM in the Netherlands. The revenue mainly increased due to a higher asset base.

3.1.2 Maintenance of the energy balance

We are responsible to ensure that electricity supply and demand is in balance at all times (i.e. alternating current frequency in the power grid must be at 50Hz continuously). If this balance is 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 unexpected 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 subsequent years. The tariffs are set by ACM.

3.1.3 Operation of energy exchanges

This amount includes revenues resulting from the auctioning of cross-border (electricity transmission "interconnection") capacity.

3.1.4 ⓘ Accounting policy with respect to revenue

Revenue primarily represents the sales value derived from the connection and transmission of electricity together with the sales value derived from the provision of other services to customers during the year. Revenue from contracts with customers is recognised when control of the services are transferred to the customer at an amount that reflects the consideration to which the Group expects to be entitled in exchange for those services.

Revenues are from contracts with a single performance obligation. The assessment of unbilled connection and transmission services supplied to customers between the date of the last meter reading and year-end is subject to judgement. This assessment is primarily based on expected consumption and weather patterns.

If revenue received or receivable exceeds the maximum annual amount as determined by the regulator, ACM, 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)	2019	2018
System services	109	155
Connection and transmission services	155	135
Maintenance of energy balance	43	48
Maintaining and operating transmission grids	98	105
Other	-12	-10
Total	**393**	**433**

System services expenses mainly comprise of the expenses incurred for measures taken to balance demand and supply of capacity.

3.2.2 Personnel expenses

(EUR million)	2019	2018
Salaries	109	100
Social security contributions	12	11
Pension charges other plans	18	16
Other personnel expenses	21	17
Capitalised costs for tangible fixed assets	-69	-55
Total	**91**	**89**

In 2019, the average workforce amounted to 1,442 FTE's (2018: 1,337 FTE's).

For our personnel we have a multi-employer scheme at ABP Pension Fund (ABP) in the Netherlands. The pension contribution rate for 2019 was 24.9% of the pensionable salary. In 2020 we expect to contribute EUR 17 million to the multi-employer scheme administered. Compared to the total participants in the ABP pension fund, our share in ABP is limited. We are not liable for deficits in the multi-employer plan.

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 was a defined contribution scheme.

Since the financial situation of the ABP pension plan at 31 December 2015 was inadequate from a regulatory persperctive, ABP filed a new 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 at 31 December 2019 is 95.8% (2018: 103.8%) which is above the critical regulatory coverage rate level under which pensions would have to be reduced.

Key management remuneration

Members of the Executive Board of the parent company are regarded as key management. Aggregate remuneration paid to TenneT's Management Board is as follows:

Executive Board (EUR thousand)	Fixed	Variable	Pension cost	Total
2019	**442**	**69**	**90**	**601**
2018	584	97	99	780

Due to a refined cost allocation between the legal entities of TenneT Holding B.V., the total remuneration 2019 recharge for TenneT TSO B.V. decreased by EUR 210 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. Remuneration paid to members of the Management Board in respect of supervisory directorships in affiliated entities accrues to the company.

Composition of the Management Board

TenneT's Management Board consists of people with diverse experiences, skills and knowledge. TenneT values this diversity and believes it contributes positively to the way situations are assessed and decisions are made. TenneT is aware that women are currently underrepresented in the Management Board and takes this into account for new appointments by making gender one of the assessment criteria and by a focused search for qualified female candidates. When multiple qualified candidates are available, the candidate that contributes to a more equal division in gender will in principle be preferred. For future appointments, TenneT will continue its current approach and will make serious efforts to comply with the gender equality targets as described in the Dutch law and as set by the European Commission, to ensure a more equal gender representation in the Management Board by 2020.

ⓘ Accounting policy

Payments to defined contribution plans are charged as an expense in the period to which they relate.

3.2.3 Other operating expenses

(EUR million)	2019	2018
Accommodation and office expenses	25	28
Consultancy expenses	11	5
Hiring of temporary personnel	20	23
Travel and living expenses	6	6
Lease expenses	2	4
Other expenses	27	20
Total	**91**	**86**

The other expenses include mainly net operating costs related to projects, contribution and subscription costs and training expenses.

The total fees for EY Accountants LLP were as follows:

(EUR thousand)	2019	2018
Audit of the financial statements		
Ernst & Young Accountants LLP	307	232
Total audit of the financial statements	**307**	**232**
Other assurance services		
Ernst & Young Accountants LLP	188	164
Total other assurance services	**188**	**164**
Total assurance services	**495**	**396**

3.3 Finance income

(EUR million)	2019	2018
Interest from participations	9	11
Interest from shareholder (TenneT Holding B.V.)	2	5
Other interest income	-	-2
Total	**11**	**14**

3.4 Finance expenses

(EUR million)	2019	2018
Interest expenses borrowings shareholder (TenneT Holding B.V.)	49	40
Capitalised interest on assets under construction	-9	-8
Interest on lease liabilities	2	-
Other finance expenses	-	-1
Total	**42**	**31**

For the effective rate of interest on assets under construction and interest on long-term loans, reference is made to note 4.1 respectively 6.3.

In 2019 the borrowings from the shareholder increased from EUR 1.7 billion to EUR 2.1 billion. As a result interest expenses for borrowings from the shareholder increased.

3.5 Income tax

TenneT TSO B.V. forms a fiscal unity with TenneT Holding B.V. regarding income tax. TenneT TSO B.V. has recognised income tax as if the company is solely liable for income tax.

The key components of income tax expense are:

Consolidated income statement (EUR million)	2019	2018
Current income tax charge	57	33
Relating to origination and reversal of temporary differences	-57	-50
Income tax expense reported in the statement of income	**-**	**-17**

The income tax related to temporary differences is related to regular depreciation and amortisation.

In the Netherlands, a statutory corporate income tax rate of 25% applied. Reconciliation between tax expense and the accounting profit multiplied by the statutory income tax rate of 25% is as follows:

(EUR million)	2019	2018
Profit before income tax	**-39**	**-30**
Statutory income tax rate of 25% (2018: 25%)	-10	-8
Effect future tax rate change in the Netherlands	9	-10
Non taxable income	1	-
Adjustments in respect to current and deferred tax of previous years	-	1
At the effective income tax rate of 3% (2018: 57%)	**-**	**-17**

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

	Statement of financial position		Statement of income	
(EUR million)	2019	2018	2019	2018
Auction receipts	-110	-125	-13	-37
Investment contributions	-60	-58	2	-14
Tariffs to be settled	50	18	-33	-5
Depreciation for tax purposes	74	62	-13	6
Provisions	3	3	-	-
Net deferred tax assets/(liabilities)	**-43**	**-100**		
Deferred tax expense/(income)			**-57**	**-50**

Movement of the deferred tax position is set out below.

(EUR million)	2019	2018
At 1 January	**-100**	**-150**
Tax expense during the period recognised in statement of income	57	50
Other	-	-
At 31 December	**-43**	**-100**

The fiscal unity did not have any tax loss carry forwards as of 31 December 2019.

ⓘ Accounting policy

The tax charge for the period is recognised in the statement of income, 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 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 with respect to 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 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. This is assessed annually. 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.

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 are 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.

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 renewable energy sources substantial further onshore and offshore grid investments are necessary in the upcoming years. This section focuses on our tangible fixed assets and related commitments which form the backbone 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 2018	**2,140**	**2,394**	**286**	**1,327**	**6,147**
Additions	-	-	-	841	841
Transfers	136	223	2	-361	-
Disposals	-	-	-	-22	-22
At 31 December 2018	**2,276**	**2,617**	**288**	**1,785**	**6,966**
Additions	-	-	-	1,092	1,092
Transfers	643	791	33	-1,467	-
Changes in estimations (note 5.7.1)	8	17	-	-	25
Internal transfer to/from (in)tangible assets	-	-	-	-26	-26
At 31 December 2019	**2,927**	**3,425**	**321**	**1,384**	**8,057**
Depreciation and impairment					
At 1 January 2018	**859**	**963**	**110**	**-**	**1,932**
Depreciation for the year	76	72	22	-	170
At 31 December 2018	**935**	**1,035**	**132**	**-**	**2,102**
Depreciation for the year	95	89	23	-	207
Impairment	2	-	-	-	2
At 31 December 2019	**1,032**	**1,124**	**155**	**-**	**2,311**
Net book value:					
At 1 January 2018	1,281	1,431	176	1,327	4,215
At 31 December 2018	1,341	1,582	156	1,785	4,864
At 31 December 2019	1,895	2,301	166	1,384	5,746

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

In 2019 the discount rate for decommissioning provision is 0.7% for OWF connections (see note 5.7). Since the main part of the decommissioning provision was recognised as part of the carrying value of the related asset, changes in discount and inflation rate, if any, directly impact this carrying amount.

The amount of borrowing costs capitalised during 2019 was EUR 9 million (2018: EUR 8 million). The effective interest rate used to determine the amount of borrowing costs eligible for capitalisation is 2.1% (2018: 2.2%).

ⓘ 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 met. All other repair and maintenance costs are recognised in the statement of income 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 that 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 various asset categories are assumed:

Estimated useful lives tangible fixed assets	Years
Substations	
Switches and offshore converter stations	20-35
Offshore platforms	20
Security and control equipment	10
Power transformers	35
Capacitor banks	35
Telecommunications equipment	10
Connections	
Pylons/lines	40
Cables (subsea and underground)	20-40
Other	
Office buildings	40
Office IT equipment	3-5
Process automation facilities	5
Offshore assets	20
Other company assets	5-10
Land (and its preparation for building) is not subject to depreciation	

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

4.2 Right-of-use assets and lease liabilities

Right-of-use assets

(EUR million)	Land & buildings	Other right-of-use assets	Total
Cost			
At 1 January 2019	-	-	-
Initial recognition IFRS 16	83	26	109
Additions	11	21	32
Depreciation	-8	-4	-12
At 31 December 2019	**86**	**43**	**129**

Leased Land & Buildings

Land is mainly leased to set up pylons for transmission cables. These contracts run for a period of 25 - 170 years. Buildings are leased mainly as office space and storage space. These contracts run for a period of 1 - 15 years.

Lease contracts for buildings are negotiated individually and include a variety of different terms and conditions, including extension options.

Lease payments are in substance fixed, only a minority of the lease contracts contain clauses with reference to the CPI index.

Other lease assets

Telecom lease contracts (including fibreglass cables) run for a period between 6 and 36 years.
For qualifying employees TenneT leases cars with a lease term between 2 and 10 years.
TenneT does not purchase or guarantee the value of leased cars or telecom assets.

TenneT has several contracts with termination / extension options. In determining the lease term all relevant facts and circumstances that create a significant economic incentive to exercise those options are taken into consideration.

TenneT had no material 'sub lease' contracts in 2019 and therefore no material income from subleasing right-of-use assets. TenneT has not entered into any sale and leaseback contracts. No lease contracts with residual value guarantees are entered into. No lease contracts have been concluded that contain restrictions or covenants.

Short-term leases and low value leases

In some cases TenneT leases other assets with terms of 1-3 years. TenneT considers these assets to be of low-value or short term in nature and therefore no right of use assets and lease liabilities are recognised for these leases. The total of short-term lease expenses for more than one month and low value assets lease expenses amounted to EUR 1 million.

Leased liability

(EUR million)	Lease liability Land & buildings	Lease liability other leases	Total
At 1 January 2019	**-**	**-**	**-**
Initital recognition IFRS 16	83	26	109
Addition	10	21	31
Interest	1	1	2
Change of index	-	-	-
Repayments	-6	-5	-11
At 31 December 2019	**88**	**43**	**131**
Long-term liability	84	41	125
Short-term liability	4	2	6
Total	**88**	**43**	**131**

The total cash outflow (including low value items and short term leases) in 2019 was EUR 11 million. TenneT TSO did not commit to any future cash outlfow of lease contracts.

The maturity analysis of lease liabilities is disclosed in note 6.7. The total amount recognised in the consolidated statement income is as follows:

(EUR million)	2019
Depreciation expense of right-of-use assets	-12
Short-term lease expenses	-1
Interest expense on lease liabilities	-2
Total	**-15**

ⓘ Accounting policy

At inception of a contract, TenneT assesses whether a contract conveys the right to control the use of an identified asset for a period in exchange for consideration, in which case it is classified as a lease.

TenneT recognises a right-of-use asset and a lease liability at the lease commencement date. The asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to restore the underlying asset, less any lease incentives received.

The lease asset is subsequently depreciated using the straight-line method from the commencement date to the end of the useful life of the right-of-use asset, considered to be indicated by the lease term. The lease asset is periodically adjusted for certain remeasurements of the lease liability and impairment losses (if any).

The lease liability is initially measured at the present value of outstanding lease payments, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, TenneT's incremental borrowing rate. If available, TenneT uses its incremental borrowing rate as the discount rate. Otherwise the used discount rates are shown below:

	2019
Under 5 year	0.00%
5-10 years	0.50%
10-15 years	1.10%
15-25 years	1.60%
Above 25 years	2.00%

After initial recognition, the lease liability is measured at amortised cost using the effective interest method and is remeasured when there is a change in future lease payments arising from a change in an index or rate or if TenneT changes its assessment of whether it will exercise a purchase, extension or termination option. A corresponding adjustment is made to the carrying amount of the right-of-use asset with any excess over the carrying amount of the asset being recognised in the profit or loss.

Short-Term Leases and Leases of Low Value

TenneT has elected not to recognise right of use assets and lease liabilities for short-term leases (leases with a term of 12 months or less) and leases of low-value assets. TenneT recognises the lease payments associated with these leases as an expense on a straight-line basis over the lease term.

4.3 Contract liabilities

The majority of the contract liabilities relates to investment contributions received from certain third parties for the construction of a new substation, a grid connection or increased connection capacity and amounted to EUR 286 million (2018: EUR 263 million). This was due to received contributions of EUR 33 million minus EUR 10 million amortisation.

ⓘ Accounting policy

Contract liability is recognised when the payment is made or the payment is due (whichever is earlier). Contract liabilities are recognised as revenue when TenneT performs under the contract. At initial recognition contributions received from third parties are measured at fair value, presented as contract liabilities (‘investment contributions’) and are subsequently recognised as revenue over the related asset’s useful life.

4.4 Commitments and contingencies related to investments

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

(EUR million)	2019	2018
Off-balance sheet rights		
Bank guarantees received	308	338
Total off-balance sheet rights	**308**	**338**
Off-balance commitments		
Capital commitments	1,126	1,148
Operating lease commitments	1	130
Total off-balance sheet obligations	**1,127**	**1,278**

4.4.1 Bank guarantees received

At year-end 2019, TenneT TSO B.V. has received bank guarantees totalling EUR 308 million (2018: EUR 338 million) with respect to prepayments in relation to investment projects.

4.4.2 Capital commitments

At 31 December 2019, external commitments totalling EUR 1,126 million (2018: EUR 1,148 million) had been entered into with regard to the purchase of tangible fixed assets.

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 result from our daily operations (such as trade receivables and payables). Our working capital requirements are significantly impacted by 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 exposed to several claims from and disputes with third parties. We record a provision for these claims and disputes if 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 2018	**3**	**155**	**64**	**15**	**-**	**237**
Additions	-	-	-	-	35	35
Transfers	-	35	-	-	-35	-
At 31 December 2018	**3**	**190**	**64**	**15**	**-**	**272**
Additions	-	-	-	1	40	41
Transfers	-	20	-	10	-30	-
Internal transfer to/from (in)tangible assets	-	-	-	-	26	26
At 31 December 2019	**3**	**210**	**64**	**26**	**36**	**339**
Amortisation and impairment						
At 1 January 2018	**-**	**141**	**43**	**2**	**-**	**186**
Amortisation for the year	-	15	5	-	-	20
At 31 December 2018	**-**	**156**	**48**	**2**	**-**	**206**
Amortisation for the year	-	16	5	3	-	24
At 31 December 2019	**-**	**172**	**53**	**5**	**-**	**230**
Net book value:						
At 1 January 2018	3	14	21	13	-	51
At 31 December 2018	3	34	16	13	-	66
At 31 December 2019	3	38	11	21	36	109

As at of 2019 all intangible assets under construction are presented as part of the intangible assets and no longer as part of tangible fixed assets under construction.

ⓘ 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. Except for capitalised development costs, internally generated intangible assets are not capitalised and expenses are reflected in the statement of income in the period in which they incur.

Goodwill is initially measured at cost and represents the excess of the consideration transferred over TenneT TSO B.V.'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 end 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

Intangible assets, with the exception of goodwill, have a fixed useful life as shown above and are amortised over such useful life. The useful life is re-assessed each reporting period. Intangible assets are amortised on a straight line basis, 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.

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, if 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.

5.2 Business combinations

ⓘ Accounting policy

Business combinations are accounted for using the acquisition method. The cost of the acquisation is measured as the aggregate of the assets and liabilities measured at their acquisition-date fair value (with a limited number of specified exceptions) including 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 and associates

We have, directly or indirectly, 50% equity stakes in Reddyn B.V., Tensz B.V. and TeslaN B.V.. These investments are classified as joint ventures. In addition TenneT TSO B.V. holds an immaterial investment in Energie Data Services Nederland (EDSN) B.V..

In 2019 we received EUR 1 million dividend from our associates and joint ventures (2018: EUR 3 million).

5.3.2 ⓘ 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 TenneT'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 distributes dividend to us in excess of our carrying amount, a liability is recognised if TenneT:
(i) is obliged to refund the dividend;
(ii) has 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 our 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)	2019	2018
Amounts due from other related parties	375	375
Other prepayments	8	-
Total	**383**	**375**

The Foundation for the Management of Allocated Funds from the National High-Voltage Grid (hereafter: 'The Foundation') holds a 10% investment in TenneT GmbH & Co. KG recognised at fair value. In order to protect the allocated funds and to ensure their immediate availability upon request from the Dutch regulator a put- and a call option have been emitted at 25 February 2010. The call option with an exercise price of EUR 375 million and a maturity period of ten years entitles TenneT Holding B.V. to acquire the investment from 'The Foundation'. The put option has an exercise price of EUR 375 million and a maturity period of ten years and requires TenneT Orange B.V. to buy the investment for 'The Foundation' upon offer. The obligation of TenneT Orange B.V. is largely covered by means of a guarantee issued by the Dutch government.
The fair value of the participation amounts to EUR 383 million; the fair values of the options are minus EUR 9 million for the call option and nil for the put option.

Other prepayments of EUR 8 million comprises a reclassification from account and other receivables.

Details on the amounts due from the shareholder are included in note 6.1.

5.5 Account- and other receivables

(EUR million)	2019	2018
Trade receivables	80	71
Amounts to be invoiced	34	36
Amounts due from the shareholder (TenneT Holding B.V.)	-	280
Amounts due from other related parties	3	14
VAT receivable	7	7
Interest receivable	1	1
Other	26	29
Total	**151**	**438**

Amounts due from the shareholder reflects our contractual right to receive the cash consideration following the 2016 capital commitment. The EUR 280 million receivable from 2017 was settled in 2019.

'Other' decreased EUR 8 million due to a reclassification of a receivable to other financial assets.

5.5.1 Trade receivables

As at 31 December, the ageing analysis of the trade receivables is 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
2019	**80**	**75**	**2**	**-**	**3**
2018	71	67	1	1	2

Changes in the bad debt provision are as follows:

(EUR million)	2019	2018
At 1 January	**11**	**5**
Charge for the year	2	9
Unused amounts reversed	-1	-3
At 31 December	**12**	**11**

As at 31 December 2019, receivables with an initial value of EUR 1 million (2018: EUR 1 million) were fully provided for.

5.6 Account- and other payables

(EUR million)	2019	2018
Account payables	58	52
Grid expenses payable	36	43
Social securities and other taxes payable	15	7
Payables to other related parties	296	15
Other payables	80	116
Total	**485**	**233**

Payables to other related parties increased from EUR 15 million to EUR 296 million. This is mainly due to amounts payable to the shareholder (TenneT Holding B.V.) of EUR 287 million with an expected due date within one year. On this current account an interest of 0.55% is calculated.

Other payables mainly comprise of personnel payables of EUR 16 million (2018: EUR 16 million), accruals for which invoices are not yet received of EUR 23 million (2018: EUR 48 million) and investment related payables of EUR 50 million (2018: EUR 21 million).

5.7 Provisions

	2019			2018		
(EUR million)	Current	Non-current	Total	Current	Non-current	Total
Environmental and decommissioning	4	57	61	7	2	9
Tariffs related	14	-	14	14	-	14
Other	7	17	24	7	14	21
Total	**25**	**74**	**99**	**28**	**16**	**44**

(EUR million)	Environmental management and decommis-sioning	Tariffs related	Other	Total
At 1 January 2018	**12**	**22**	**12**	**46**
Addition	2	2	5	9
Utilisation	-3	-3	-1	-7
Changes in estimations	-	-	5	5
Unused amounts reversed	-2	-7	-	-9
At 31 December 2018	**9**	**14**	**21**	**44**
Addition	30	-	2	32
Utilisation	-3	-	-1	-4
Changes in estimations	25	-	2	27
Unused amounts reversed	-	-	-	-
At 31 December 2019	**61**	**14**	**24**	**99**

5.7.1 Provisions for environmental management and decommissioning

Provisions 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 2019 EUR 31 million was added (2018: EUR 9 million) for future decommissioning costs for projects constructed during 2019. There was no decommissioning of substations in 2019. The first decommissioning of an offshore grid connection is expected to start in 2041.

5.7.2 Tariffs related provisions

Tariff-related provisions mainly relate to provisions for system service fees. 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 amounts paid by certain parties to us without a direct grid connection. These refunds can be recouped through future tariffs. In 2019 no material amount (2018: EUR 3 million) of the provided amount was paid out to consumers.

The exact amount to be repaid for system services fees is uncertain and depends on such factors as the electricity usage of the relevant party in the past, the legal expiring date and the nature and legal structure of each individual party.

5.7.3 Other provisions

The majority of the other provisions relate to legal claims and to personnel provisions. TenneT has future liabilities under the Collective Labour Agreement involving the payment of salary-related bonuses to long-serving and retiring employees on their retirement date. The size of the associated provision has been calculated on the basis of actuarial principles. The main assumptions made in this context concern the annual salary increase of 3.0% (2018: 3.0%) in the Netherlands, leave chance of 5.0% (2018: 5.0%), an age-dependent retention rate and a discount rate of 1.5% (2018: 2.2%).

5.7.4 ⓘ 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 estimated future costs and discount rates for decommissioning costs are recognised as changes in estimations in the tangible fixed assets. For all other provisions changes in estimated future costs and discount rates are recognised in the statement of income.

5.7.5 Key estimates and assumptions provisions

The estimated decommissioning provision involves assessing the expected remaining useful life of relevant asset. The useful life of the offshore grid connections is estimated at 20 years. Decommissioning costs are provided for at the present value of expected costs to settle the obligation. This provision assumed a discount rate of 0.7% and an inflation rate of 2.0%.

The recorded provisions reflect our 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.

Due to the business TenneT operates in and TenneT's legal structure, TenneT faces several contingent liabilities. In general the following issues are recognised as contingent liabilities at TenneT:

- Possible impact of the Dutch regulatory frameworks on TenneT's business financial conditions and net income;
- Operational risks and risks related to material projects;
- Impact of environmental issues;
- Risks relating to the structure of TenneT;
- Risks relating to the financing of TenneT;
- Factors which are material for the purpose of assessing the market risks.

The uncertainties relating to the contingent liabilities makes a reliable estimation of the financial impact not possible.

5.8 Other current financial liabilities

Other financial liabilities relate to collateral securities given by third parties to underwrite trading on energy exchanges and the auctioning of cross-border interconnection capacity.

5.9 Inventories

Inventory was primarily composed of oil which is used for measures taken at power plants that are standing by for TenneT.

Inventory is stated at the lower of cost and net realisable value. Cost comprises direct purchase costs and associated costs incurred in bringing inventories to their present condition and location. The net realisable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale.

The fair value of inventory was not materially different from the carrying value.

6. CAPITAL STRUCTURE AND FINANCING

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

6.1 Equity

6.1.1 Equity attributable to owners of the company

Paid-up and called-up capital

The Company's authorised share capital amounted to EUR 500 million (2018: EUR 500million), 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 agreed to contribute up to EUR 1.19 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 and second tranche of EUR 350 million were received in 2017 and 2018, respectively. In line with the capital commitment by the Dutch government in 2016, we received the third unconditional tranche of EUR 280 million at the end of 2019. The Ministry of Finance also granted the fourth - conditional - tranche of EUR 410 million, which we also received in 2019.

Unappropriated result and dividend distribution

The profit for 2019 is at the free disposal of the General Meeting of Shareholders.

6.2 Ratios

TenneT TSO B.V. is required by law, specifically the 'Besluit Financieel Beheer Netbeheerder' ('BFBN') to disclose information regarding the following (solvency) ratios at the end of every year:

The performance of TenneT with respect to the criteria stipulated in the BFBN is significantly affected by the fact that TenneT does not recognise regulatory assets and liabilities for its regulated activities in its financial statements in accordance to IFRS as accepted by the European Union. To ensure a sound, consistent and transparent financial insight into past and future business developments we report underlying financial information in our financial statements (refer to note 2 for further information).

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 or required to be settled in future tariffs are recorded as an asset or liability, respectively. We believe that the presentation of underlying financial information leads to a sound, consistent and transparent financial insight into past and future business developments. Consequently, we also decided to disclose the BFBN ratios based on underlying accounting as of 2018 and 2019.

ratio	Requirement	IFRS 2019	IFRS 2018	Underlying 2019	Underlying 2018
A	≥ 1.7	-0.2	-0.3	4.1	3.0
B	≥ 2.5	5.1	5.7	8.6	7.6
C	≥ 11%	7%	7%	12%	9%
D	≤ 70%	47%	44%	52%	55%

(EUR million)	Notes	IFRS 2019	UND 2019
Ratio A			
Operating profit		-8	211
Gross finance expenses	3.4	51	51
Total		**-0.2**	**4.1**
Ratio B			
net profit before depreciation, amortisation, deferred taxes, other non monetary costs and gross finance expenses		261	440
Gross finance expenses	3.4	51	51
Total		**5.1**	**8.6**
Ratio C			
net profit before depreciation, amortisation, deferred taxes and other non monetary costs, minus investment contributions and collateral securities		210	389
Total liabilities		2,948	3,376
Total		**7%**	**12%**
Ratio D			
Total liabilities		2,948	3,376
Total liabilities and equity		6,241	6,437
Total		**47%**	**52%**

The above mentioned ratios are calculated as follows:

A: operating profit divided by the gross finance expenses on loans.
B: the sum of net profit, depreciation, amortisation, deferred taxes, other non monetary costs (movement provisions) and gross finance expenses divided by the gross finance expenses.
C: the sum of net profit, depreciation, amortisation, deferred taxes, other non-monetary costs divided by the total liabilities. The total liabilities are adjusted for investment contributions and collateral securities.
D: the total liabilities divided by the sum of total liabilities and equity including minority interest and preference shares.

TenneT did not meet the ratio requirements for ratio A and C based on IFRS figures. In such instances article 18a paragraph 4 of the Electricity Act 1998 stipulates the following implications:

- TenneT sends the Authority Consumer and Markets a written notification;
- Within four weeks after the notification TenneT sets up a recovery plan describing the manner in which improvement of financial management will be realised and sends this plan to the Authority Consumer and Markets;
- TenneT is not allowed to distribute dividends to the shareholder.

6.3 Borrowings

(EUR million)	Effective interest rate	Maturity	Redemption schedule	2019	2018
Loan from shareholder (TenneT Holding B.V.)	2.15%	Dec-29	At maturity	2,114	2,114
Loan from related party	5.16%	Feb-20	At maturity	75	75
Non-current interest-bearing loans				**2,189**	**2,189**

TenneT TSO B.V. is financed through TenneT Holding B.V. As per 31 December 2019 the principal amount of the finance facility between TenneT Holding B.V. and TenneT TSO B.V. amounted to EUR 2,189 million (2018: EUR 2,189 million); a maximum facility has not been agreed upon. The facility matures after 10 years and is automatically extended every year for another year, unless agreed upon otherwise. The conditions include a cross default clause. The effective interest rate is equal to the cost of fund of TenneT Holding B.V. with a surcharge of +0.125%. TenneT TSO B.V. had no other credit facilities as at 31 December 2019 (2018: nil).

For more information about the fair value and applicable accounting policy, see note 6.5 and 6.6, respectively.

Changes in our borrowings arising from our financing activities are as follows:

(EUR million)	(Non) -current interest-bearing loans	Total
At 1 January 2018	**1,786**	**1,786**
Cash inflow from new borrowings	403	403
At 31 December 2018	**2,189**	**2,189**
Cash inflow from new borrowings	-	-
Cash outflow from redemptions	-	-
At 31 December 2019	**2,189**	**2,189**

6.4 Cash and cash equivalents

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:

	2019		2018	
(EUR million)	Not at free disposal	Total	Not at free disposal	Total
Collateral securities	79	79	71	71
Cash at bank	2	2	-	-
Total cash and cash equivalents used in cash flow statement	**81**	**81**	**71**	**71**

ⓘ 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 subsequently 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, and the level in the valuation hierarchy the instruments are measured at fair value.

		Carrying amount		Fair value		
(EUR million)	Notes	**2019**	2018	**2019**	2018	Hierarchy
Financial assets						
Loans and receivables						
- Account- and other receivables	5.5	151	438	151	438	Level 2
- (Other) financial assets	5.4	383	375	383	375	Level 2
Cash and cash equivalents	6.4	81	71	81	71	Level 1
Total		**615**	**884**	**615**	**884**	
Financial liabilities						
Borrowings:						
- Borrowings	6.3	2,189	2,189	2,191	2,194	Level 2
- Account- and other payables	5.6	485	233	485	233	Level 2
- Other financial liabilities	5.8	79	71	79	71	Level 2
Total		**2,753**	**2,493**	**2,755**	**2,498**	

As at 31 December 2019, no instruments carried at fair value were held (2018: nil). 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 2018, due to the short-term maturities of these instruments.

The following hierarchy by valuation technique was used to calculate 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 were no transfers between the fair value hierarchy levels during 2019.

6.6 ⓘ Accounting policies for financial instruments

Financial assets

All financial assets are recognised initially at fair value, net of directly attributable transaction cost.

After initial recognision financial assets are measured at amortised cost, fair value through other comprehensive income (OCI), and fair value through profit or loss. The investments in TenneT GmbH & Co. KG is recognised at fair value. TenneT's other financial assets are classified as amortised cost, because the following two conditions are met:

• The financial asset are held within a business model with the objective to hold financial assets in order to collect contractual cash flows.
• The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Financial assets at amortised cost are subsequently measured using the effective interest (EIR) method and are subject to impairment.

TenneT recognises an allowance for expected credit losses (ECLs) for financial assets. ECLs are based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that TenneT expects to receive, discounted at an approximation of the original effective interest rate. For trade receivables and contract assets, TenneT applies a simplified approach in calculating ECLs. Therefore, TenneT does not track changes in credit risk, but instead recognises a loss allowance based on lifetime ECLs at each reporting date.

Financial liabilities

All financial liabilities are recognised initially at fair value and, in the case of loans and borrowings and payables, net of directly attributable transaction costs. TenneT's financial liabilities include trade and other payables, loans and borrowings including bank overdrafts.

After initial recognition at fair value, interest-bearing loans and borrowings are subsequently measured at amortised cost using the EIR method. Gains and losses are recognised in profit or loss when the liabilities are derecognised as well as through the EIR amortisation process. Amortised cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR. EIR amortisation is included as finance expense in the statement of income.

6.7 Financial risk management

Our business activities are exposed to a number of 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 profit 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 our regulatory risk we refer to the 'Risk Management' section of the Management Board report.

Risk management related to financing activities is conducted by our Treasury department under policies included in the Treasury Statute approved by our Management Board and Audit, Risk and Compliance Committee. Our financial risk management objectives, policies and processes remained unchanged in 2019 compared to 2018. The Treasury department's objective is to facilitate the realisation of our financial and strategic objectives from a funding and financial risk perspective. Our Management Board has approved the Treasury Statute. 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.

Interest rate risk

We are exposed to interest rate risk on our debt portfolio. To limit the interest rate risk, our policy is to base the majority of our loan portfolio on fixed interest rates. As of 31 December 2019, the long-term loan portfolio was entirely based on fixed interest rates. An increase or decrease in interest rates of 2 percentage points would not result in a material increase or decrease in our net interest cost (applicable to 2019 and 2018).

Furthermore, there is a risk that interest payable on borrowings exceeds the interest compensation received 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.

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 its 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 the counterparties. We also have policies in place to monitor the financial viability of counterparties.

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 the 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 the parties with balance responsibility.
With respect to the investment projects, we require counterparties to deliver bank guarantees or collaterals as a protection against defaults.

The management of energy exchanges and the maintenance of the energy balance between supply and demand requires handling of large cash flows. TenneT's policies are aimed at minimising the risks associated with the clearing transactions of these cash flows.

Credit risk on trade and other receivables is limited, because most of our trade and other debtors have a low risk of default. Consequently, TenneT has no material collateral as security and no insurance for credit risk. The maximum exposure to credit risk at the reporting date is the carrying value of each class of financial assets disclosed in note 5.4 and 5.5. The movement of the allowance for expected credit losses of trade receivables is included in note 5.5.1.

The provision rates for expected credit losses are based on groupings of various customer segments with similar loss patterns (such as customer type and arrears in payments). Any expected credit losses for financial guarantee contracts and commitment letters (if any) are also provided for. The calculation reflects the probability-weighted outcome, the time value of money and reasonable and supportable information that is available at the reporting date about past events, current conditions and forecasts of future economic conditions. Generally, trade receivables and other financial assets are written-off if there is no reasonable expectation of recovering the contractual cash flows. TenneT considers a financial asset in default when contractual payments are 90 days past due. However, in certain cases, TenneT may also consider a financial asset to be in default when internal or external information indicates that TenneT is unlikely to receive the outstanding contractual amounts in full before taking into account any credit enhancements held by TenneT.

Financial credit risk
In 2019 financial credit risk arose mainly from our transactions and positions with financial institutions. As at 31 December 2019, the maximum credit risk amounted to EUR nil (2018: nil).

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 2019 we had no deposits with third parties (2018: nil).

Management does not expect any significant losses from non-performance by treasury counterparties.

Liquidity risk
Liquidity risk is defined as the risk that TenneT cannot meet its short-term financial obligations. TenneT's objective when managing liquidity is to be able to meet our short-term obligations at all times. Liquidity is monitored every quarter on a rolling 12-month forward-looking basis.The liquidity requirement was met each quarter including 31 December 2019 and 31 December 2018.

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 2019							
Lease liabilities	4.2	1	2	11	48	132	194
Borrowings	6.3	-	78	46	182	2,345	2,650
Account- and other payables	5.6	187	1	296	1	-	485
Other financial liabilities	5.8	79	-	-	-	-	79
Total		**267**	**81**	**353**	**231**	**2,477**	**3,408**
At 31 December 2018							
Borrowings	6.3	4	8	36	193	2,356	2,597
Account- and other payables	5.6	226	4	2	1	-	233
Other financial liabilities	5.8	71	-	-	-	-	71
Total		**301**	**12**	**38**	**194**	**2,356**	**2,901**

The financing arrangement with TenneT Holding B.V. is such that management expects 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. No security interest over any of TenneT's assets has been provided. All credit facilities have floating-rate interest conditions.

We expect to meet our financial obligations for 2020 with (i) cash and cash equivalents, (ii) funds from operations (iii) unused credit facilities and (iv) capital market transactions provided by TenneT Holding B.V.. We expect to meet our financial obligations for the subsequent years through various capital market transactions and equity contributions and intend to manage future refinancing risks by spreading the tenors of new financing arrangements.

7. OTHER DISCLOSURES

Other mandatory disclosures, such as other commitments and contingencies are described in this note.

7.1 Other commitments and contingencies

(EUR million)	2019	2018
Grid-related commitments	565	665
Guarantees issued	2	2
Other off-balance sheet commitments	50	26
Total off-balance sheet obligations	**617**	**693**
Off-balance sheet rights		
Government guarantees received	300	300
Total off-balance sheet rights	**300**	**300**

The expected cash flows for grid-related commitments and other off-balance sheet commitments are equal to the amounts in the above table. For guarantees issued no cash flows are expected.

7.1.1 Grid related commitments

Grid-related commitments included the unused auction receipts in the Netherlands amounting to EUR 470 million (2018: EUR 555 million).

7.1.2 Guarantees issued

TenneT TSO B.V. issued bank guarantees for an amount of EUR 2 million (2018: EUR 2 million).

7.1.3 Government guarantees received

TenneT benefits from a financial guarantee issued by the Dutch State for an amount of EUR 300 million which expired in February 2020.

7.1.4 Other

Other off-balance sheet commitments mainly consist of:

- TenneT TSO B.V. is currently involved in a claim procedure because of alleged wrongful termination of construction contracts and in a counter claim procedure against this counter party regarding financial settlement & damages due to the alleged non-fulfilment of the construction contracts;
- The ACM has started a formal investigation regarding the interruption in TenneT TSO B.V. network in 2018. The ACM concluded in the formal investigation that TenneT TSO B.V. violated the grid redundancy criteria n-1 and the legal obligation to take all necessary measures to avoid an interruption. Both violations are classified by the ACM in the highest category of violations (‘very severe’) and the ACM decided to initiate the formal process to fine TenneT for non-compliancy of the Electricity Act. Such a fine, if and to the extent rendered and confirmed by a court in final instance, could have a negative effect on the Issuer's reputation, which could have a material adverse effect on the Issuer’s business, financial condition and net income.

Various other off-balance sheet commitments and contingencies as well as other off-balance sheet rights existed but were immaterial from a disclosure perspective. 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.

In the unlikely event that these claims would prevail in court, this could have a material impact on the company's financials.

Finally, we expect to spent an amount of EUR 60 million to finalise already commissioned projects.

7.2 Related parties

The following related parties are part of the TenneT Holding Group. For an overview of legal entities that are included in the consolidated financial statements, reference is made to note 7.3. Other material related parties are the State of the Netherlands: TenneT Holding B.V. is controlled by the Dutch State, which owns 100% of the Parent Company's ordinary shares;

Related party	Legal seat	Country
BritNed Development Ltd.	London	United Kingdom
Colonne B.V.	Vianen	Netherlands
DC Netz BorWin3 GmbH	Bayreuth	Germany
DC Netz DolWin4 GmbH	Bayreuth	Germany
DC Netz GmbH	Bayreuth	Germany
DC Netz HelWin1 GmbH	Bayreuth	Germany
DC Netz SylWin2 GmbH	Bayreuth	Germany
DC Nordseekabel Beteiligungs GmbH	Bayreuth	Germany
DC Nordseekabel GmbH & Co. KG	Bayreuth	Germany
DC Nordseekabel Management GmbH	Bayreuth	Germany
Duvekot Rentmeesters B.V.	Bathmen	Netherlands
EPEX SPOT S.E.	Luxemburg	Luxemburg
ETPA B.V.	Amsterdam	Netherlands
ETPA Holding B.V.	Amsterdam	Netherlands
Holding des Gestionnaires de Réseaux de Transport d'Électricité S.A.S	Parijs	Frankrijk
Mobile Radio Networks Vehicle B.V.	Vianen	Netherlands
Nlink International B.V.	Arnhem	Netherlands
NOVEC B.V.	Vianen	Netherlands
NOVEC GmbH	Emsbüren	Germany
Omroepmasten B.V.	Vianen	Netherlands
Open Tower Company B.V.	Vianen	Netherlands
OTCII B.V.	Vianen	Netherlands
Relined B.V.	Utrecht	Netherlands
Relined GmbH	Emsbüren	Germany
TenneT Duitsland Coöperatief U.A.	Arnhem	Netherlands
TenneT GmbH & Co. KG	Bayreuth	Germany
TenneT Green B.V.	Arnhem	Netherlands
TenneT Holding B.V.	Arnhem	Netherlands
TenneT Offshore 1. Beteiligungsgesellschaft mbH	Bayreuth	Germany
TenneT Offshore 2. Beteiligungsgesellschaft mbH	Bayreuth	Germany
TenneT Offshore 4. Beteiligungsgesellschaft mbH	Bayreuth	Germany
TenneT Offshore 7. Beteiligungsgesellschaft mbH	Bayreuth	Germany
TenneT Offshore 8. Beteiligungsgesellschaft mbH	Bayreuth	Germany
TenneT Offshore 9. Beteiligungsgesellschaft mbH	Bayreuth	Germany
TenneT Offshore Dolwin 3 Beteiligungs GmbH & Co. KG	Bayreuth	Germany
TenneT Offshore Dolwin 3 GmbH & Co. KG	Bayreuth	Germany
TenneT Offshore Dolwin 3 Verwaltungs GmbH	Bayreuth	Germany
TenneT Offshore GmbH	Bayreuth	Germany
TenneT Orange B.V.	Arnhem	Netherlands

TenneT TSO Duitsland B.V.	Arnhem	Netherlands
TenneT TSO GmbH	Bayreuth	Germany
TenneT Verwaltungs GmbH	Bayreuth	Germany
TransTenneT B.V.	Arnhem	Netherlands
WL Winet B.V.	Vianen	Netherlands
WL Winet GmbH in liquidation	Emsbüren	Germany

Report in accordance with article 18 paragraph 3 of the electricity act 1998.
The relationship between TenneT TSO B.V. and its related parties within the TenneT Holding Group is compliant with the requirements of article 18 paragraph 1 of the electricity act 1998. The related parties perform the activities the transmission system operator is not allowed to in accordance with article 17a of the electricity act 1998. This implies TenneT TSO B.V. does not provide benefits to group companies which are not awarded to third parties nor does it provide group companies with other benefits exceeding normal trade practice. The following items are considered as benefits to group companies or awarding benefits exceeding normal trade practice:

- Providing a group company with data relating to customers, not being customers as included in article 95a paragraph 1 of the electricity act 1998, who have made a request as meant in article 23 or 24 of the electricity act 1998;
- Providing goods or services to a group company at a price lower than the reasonably attributable costs; or
- Allowing the use of the name and logo of the transmission system operator in a way that could confuse the public regarding the origin of goods and services.

7.3 Consolidated subsidiaries

The following legal entities are included in the consolidation of TenneT TSO B.V:

			Voting interest		Economic interest		
Subsidiary	Legal seat	Country	2019	2018	2019	2018	
B.V. Transportnet Zuid-Holland	Voorburg	Netherlands	100%	100%	100%	100%	*
CertiQ B.V.	Arnhem	Netherlands	100%	100%	100%	100%	
Nadine Netwerk B.V.	Arnhem	Netherlands	100%	100%	100%	100%	*
Saranne B.V.	Arnhem	Netherlands	100%	100%	100%	100%	*
Stichting Beheer Doelgelden Landelijk Hoogspanningsnet	Arnhem	Netherlands	100%	100%	N/A	N/A	

* 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.

As TenneT is able to exercise direct control over its management and financial and operational policies, the consolidation includes the foundation Stichting Beheer Doelgelden Landelijk Hoogspanningsnet. This foundation temporarily manages funds arising from the maintenance of the energy balance and auctioning of capacity by TenneT TSO B.V.

7.4 Events after the reporting period

At 25 February 2020 the Foundation for the Management of Allocated Funds from the National High-Voltage Grid, a 100% investment of TenneT TSO B.V., sold EUR 320 million of EUR 375 million of its investment in TenneT GmbH & Co .KG to TenneT Holding B.V., leaving a EUR 55 million participation. As a result from 2020 onwards the yearly return on investments will decrease significantly with an estimated EUR 11 million, impacting TenneT TSO BV similarly.

Company financial statements

Company statement of income

For the year ended 31 December (EUR million)

	Notes	2019	2018
Revenue	9.1	**810**	**803**
Grid expenses	3.2.1	-393	-433
Personnel expenses	3.2.2	-91	-89
Depreciation and amortisation of assets	4.2, 9.5, 9.6	-242	-190
Other operating expenses	9.2	-91	-86
Other gains/(losses)		-2	-22
Total operating expenses		**-819**	**-820**
Share in (loss)/profit of joint ventures and associates		-	3
Operating profit		**-9**	**-14**
Finance income	9.3	11	14
Finance expenses	9.4	-42	-31
Finance result		**-31**	**-17**
Profit before income tax		**-40**	**-31**
Income tax expense		-	21
Profit from participating interests		1	-3
Profit for the year		**-39**	**-13**
Profit attributable to:			
Equity holders of ordinary shares		-39	-13
Profit for the year		**-39**	**-13**

Company statement of financial position

For the year ended 31 December (EUR million)

Assets	Notes	2019	2018
Non-current assets			
Tangible fixed assets	9.5	5,321	4,409
Right-of-use assets	4.2	128	-
Intangible assets	9.6	101	58
Investments in subsidiaries	9.7	603	602
Joint ventures and associates	5.3	2	3
Other financial assets	9.8	307	445
Total non-current assets		**6,462**	**5,517**
Current assets			
Inventories	5.9	4	5
Account- and other receivables	9.9	149	449
Cash and cash equivalents	6.4, 9.10	80	71
Total current assets		**233**	**525**
Total assets		**6,695**	**6,042**

Equity and liabilities	Notes	2019	2018
Equity			
Paid-up and called capital		100	100
Share premium reserve		1,826	1,380
Retained earnings		1,311	1,387
Revaluation reserve		33	43
Reserve for internally generated intangible assets		62	25
Unappropriated result		-39	-13
Total equity	9.11	**3,293**	**2,922**
Non-current liabilities			
Borrowings	6.3	2,114	2,114
Contract liabilities	9.12	277	254
Deferred tax liability	9.13	58	114
Provisions	9.14	74	16
Lease liabilities	4.2	125	-
Total non-current liabilities		**2,648**	**2,498**
Current liabilities			
Provisions	9.14	25	28
Other financial liabilities	9.16	79	71
Lease liabilities	4.2	6	-
Account- and other payables	9.15	644	523
Total current liabilities		**754**	**622**
Total equity and liabilities		**6,695**	**6,042**

Notes to the company financial statements

These notes contain information about the company financial statements of TenneT TSO B.V. as well as a description of the specific accounting policies applied when compiling these company financial statements are described.

8.1 Company accounting policies

The company financial statements for TenneT TSO B.V. have been prepared in accordance with the provisions of Part 9, Book 2 of the Dutch 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 Dutch Civil Code.

Expected Credit Losses (ECL) provisions for receivables from subsidiaries will be eliminated as intercompany positions. Changes in these ECL provisions will impact the carrying amounts of the financial assets in the company statement of the financial position due to a possible provision. This will result in a difference between the company equity and the consolidated equity. No ECL provision was deemed necessary.

8.2 Investments in subsidiaries

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.

Following the formation of TenneT as the national high voltage grid operator, TenneT TSO has acquired subsidiaries that formally own components of the onshore grid in the Netherlands. For legal reasons, these entities still exist and continue to own the grid assets. Within the TenneT TSO group, all revenues and expenses of these entities are charged to TenneT TSO BV. under the provisions of intercompany arrangements. All entities are part of the same fiscal unity for income tax purposes.

When the company's 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 TenneT TSO B.V. will recognise a provision.

9 ITEMS OF THE COMPANY STATEMENT OF FINANCIAL POSITION

9.1 Revenue

(EUR million)	2019	2018
Connection and transmission services	635	594
Maintenance of energy balance	68	72
Operation of energy exchanges	64	99
Other	43	38
Total revenue IFRS	**810**	**803**

9.2 Other operating expenses

Part of the other operating expenses is the total fee to EY network firms. For further disclosure regarding other operating expenses we refer to the consolidated financial statements (note 3.2.3).

9.3 Finance income

The result on finance income is mainly related to the interest received on a participation in TenneT TSO Duitsland B.V. The intercompany agreements are made on terms equivalent to those that prevail in arm's length transactions.

9.4 Finance expenses

The finance expenses mainly relate to the interest on borrowings from the parent.

9.5 Tangible fixed assets

(EUR million)	High-voltage substations	High-voltage connections	Other assets	Assets under construction	Total
Cost					
At 1 January 2018	**1,769**	**1,697**	**264**	**1,329**	**5,059**
Additions	-	-	-	841	841
Transfers	136	223	2	-361	-
Disposals	-	-	-	-22	-22
At 31 December 2018	**1,905**	**1,920**	**266**	**1,787**	**5,878**
Additions	-	-	-	1,092	1,092
Transfers	643	791	33	-1,467	-
Changes in estimations (note 5.7.1)	8	17	-	-	25
Internal transfer to/from (in)tangible assets	-	-	-	-26	-26
At 31 December 2019	**2,556**	**2,728**	**299**	**1,386**	**6,969**
Depreciation and impairment					
At 1 January 2018	**620**	**612**	**97**	**-**	**1,329**
Depreciation for the year	69	50	21	-	140
At 31 December 2018	**689**	**662**	**118**	**-**	**1,469**
Depreciation for the year	89	65	23	-	177
Impairment	2	-	-	-	2

At 31 December 2019	**780**	**727**	**141**	**-**	**1,648**
Net book value:					
At 1 January 2018	1,149	1,085	167	1,329	3,730
At 31 December 2018	1,216	1,258	148	1,787	4,409
At 31 December 2019	1,776	2,001	158	1,386	5,321

For disclosure regarding material movements we refer to note 4.1.

9.6 Intangible assets

(EUR million)	Goodwill	Software	Customer contracts	Other intangible assets	Intangible assets under construction	Total
Cost						
At 1 January 2018	**1**	**151**	**42**	**15**	**-**	**209**
Transfers	-	36	-	-	-36	-
Additions	-	-	-	-	35	35
At 31 December 2018	**1**	**187**	**42**	**15**	**-1**	**244**
Transfers	-	19	-	11	-30	-
Additions	-	-	-	-	39	39
Internal transfer to/from (in)tangible assets	-	-	-	-	26	26
At 31 December 2019	**1**	**206**	**42**	**26**	**34**	**309**
Amortisation and impairment						
At 1 January 2018	**-**	**136**	**28**	**4**	**-**	**168**
Amortisation for the year	-	15	3	-	-	18
At 31 December 2018	**-**	**151**	**31**	**4**	**-**	**186**
Amortisation for the year	-	17	4	1	-	22
At 31 December 2019	**-**	**168**	**35**	**5**	**-**	**208**
Net book value:						
At 1 January 2018	1	15	14	11	-	41
At 31 December 2018	1	36	11	11	-1	58
At 31 December 2019	1	38	7	21	34	101

As of 2019, the intangible assets under construction are no longer presented as part of the tangible fixed assets under construction but separately as part of the intangible assets. This change affected the line items tangible fixed assets and intangible assets as of 1 January 2019 for EUR 26 million in aggregate with no impact on total equity.

9.7 Investments in subsidiaries

The investments in subsidiaries relate to the legal entities included in the consolidation as disclosed in note 7.3 of the consolidated financial statements.

9.8 Other financial assets

Financial assets comprise of a receivable from the shareholder (TenneT Holding B.V.) and a prepayment of EUR 8 million which comprises to a reclassification from account and other receivables.

9.9 Account- and other receivables

(EUR million)	2019	2018
Receivables from Shareholder (TenneT Holding B.V.)	-	280
Receivables from other related parties	3	28
Trade receivables	80	71
Amounts to be invoiced	34	36
VAT receivable	7	7
Other	25	27
Total	**149**	**449**

'Other' decreased EUR 8 million due to a reclassification of a receivable to other financial assets.

9.10 Cash and cash equivalents

Beside the description in note 6.4, an additional EUR 1.8 million is reflected in cash and cash equivalents relating to 'Stichting Beheer Doelgelden Landelijk Hoogspanningsnet'.

9.11 Equity

The statement of changes in equity and disclosure to that statement are included in the consolidated financial statements.

The appropriation of profits is governed by Section 38.3 of the Articles of Association, which states: 'Subject to approval by the Supervisory Board, the Management Board may reserve a portion of any profit that may remain after application of the provisions of clause 2, sufficient in the Management Board’s view to finance capital expenditure to support fulfilment of the company’s statutory duties as grid administrator, such as maintenance, expansion and environmental management. Any profit which is not thus reserved shall be at the free disposal of the General Meeting of Shareholders. When calculating the amount of profit to be paid out on each share, account shall be taken only of the sum of the obligatory call on the nominal value of the shares. In the event of a tied vote regarding the distribution or reservation of profits, the profit to which the proposal relates shall be reserved'.

(EUR million)	Reserve for internally generated intangible assets	Revaluation reserve	Total legal reserve
At 1 January 2019	**25**	**43**	**68**
Internally generated intangible assets	37	-	37
Depreciation revaluation tangible fixed assets	-	-10	-10
At 31 December 2019	**62**	**33**	**95**

In addition to the statement of changes in equity, a legal reserve was formed within shareholder equity for a revaluation of EUR 33 million (2018: EUR 43 million).

The revaluation reserve serves to cover the revaluation of tangible fixed assets within TenneT TSO B.V.’s national high-voltage grid. Following the implementation of IFRS on 1 January 2004, the fair value exception provided for in IFRS 1 has been applied.

This one-off exception allows tangible fixed assets to be stated at their fair value on the transition date. This figure has subsequently been used as the 'deemed cost price'. The size of the revaluation reserve corresponds to that part of the restated value of the tangible fixed assets resulting from application of the fair value exception, less the deferred tax liability.

The legal reserves are not freely distributable.

9.12 Contract liabilities

(EUR million)	2019	2018
Investment contributions	277	254
Total	**277**	**254**

9.13 Deferred tax liability

	Statement of financial position		Statement of income	
(EUR million)	2019	2018	2019	2018
Auction receipts	-112	-125	-13	-37
Investment contributions	-60	-58	1	-14
Tariffs to be settled	51	18	-33	-6
Accelerated depreciation for tax purposes	59	47	-12	3
Provisions	3	3	-	-
Other	1	1	-	-
Net deferred tax assets/(liabilities)	**-58**	**-114**		
Deferred tax expense/(income)			**-57**	**-54**

For further disclosure regarding income tax we refer to the consolidated financial statements (note 3.5).

9.14 Provisions

For the movements in provisions we refer to the consolidated financial statements (note 5.7).

9.15 Account- and other payables

(EUR million)	2019	2018
Payables to related parties	460	310
Accounts payable	58	52
Taxes and social securities	15	7
Other payables	111	154
Total	**644**	**523**

Effective interest on the payables to related parties is 0.55% (2018: 0.55%). A list of all related parties can be found in note 7.3 of the consolidated financial statements.
Other payables mainly comprise of personnel payables (EUR 16 million, 2018: EUR 16 million), invoices to be received (EUR 23 million, 2018: EUR 48 million) and investment related payables (EUR 50 million, 2018: EUR 21 million).

9.16 Other financial liabilities

Other financial liabilities relate to collateral securities given by third parties to underwrite trading on energy exchanges and the auctioning of cross-border interconnection capacity.

9.17 Off-Balance sheet commitments

Details on the off-balance sheet commitments are included in the consolidated financial statements, see note 4.4 and note 7.1.

Arnhem, 9 March 2020

Management Board of TenneT TSO B.V.

O.J. Jager
B.G.M. Voorhorst

TenneT TSO B.V.
Utrechtseweg 310
6812 AR Arnhem
Chamber of Commerce register 09083317

Other information

Events after the reporting period

No significant events after the reporting period have occurred.

Independent auditor's report

See the following pages of this annual report.

Independent auditor's report

To: the Shareholder and management of TenneT TSO B.V.

Report on the audit of the financial statements 2019 included in the annual report

Our opinion

We have audited the financial statements 2019 of TenneT TSO 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 TSO B.V. as at 31 December 2019, and of its result and its cash flows for 2019 in accordance with International Financial Reporting Standards as adopted by the European Union (EU-IFRS) and with Part 9 of Book 2 of the Dutch Civil Code.
- The accompanying company financial statements give a true and fair view of the financial position of TenneT TSO B.V. as at 31 December 2019, and of its result for 2019 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 2019
- The following statements for 2019: the consolidated statements of comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows
- 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 2019
- The company statement of income for 2019
- 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 TSO B.V. in accordance with the Wet toezicht accountantsorganisaties (Wta, Audit firms supervision act), the Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten (ViO, Code of Ethics for Professional Accountants, a regulation with respect to independence) and other relevant independence regulations in the Netherlands. Furthermore we have complied with the Verordening gedrags- en beroepsregels accountants (VGBA, Dutch Code of Ethics).

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

Report on other information included in the annual report

In addition to the financial statements and our auditor's report thereon, the annual report contains other information that consists of:
- About TenneT TSO B.V.
- Management Board report

- Abbreviations and definitions
- 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 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 management board'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.

Description of responsibilities for the financial statements

Responsibilities of management for the financial statements

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

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

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 skepticism 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 management
- Concluding on the appropriateness of management's use of the going concern basis of accounting, and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause a company to cease to continue as a going concern
- Evaluating the overall presentation, structure and content of the financial statements, including the disclosures
- Evaluating whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation

We communicate with management and those charged with goverance 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.

Arnhem, 9 March 2020

Ernst & Young Accountants LLP

Signed by P.A.E. Dirks

ABBREVIATIONS AND DEFINITIONS

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.

ACM – Autoriteit Consument & Markt

Dutch national regulatory authority.

BFBN – Besluit Financieel Beheer Netbeheerder

Rules made by the Dutch state relating to the financial management of the system operator.

Capex – Capital expenditure

Capital expenditure (Capex) is the amount spent on acquiring or improving long-term assets. Its benefits are enjoyed over a long time period, 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 (CO_2).

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.

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.

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.

CO_2 – 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.

CPI index

A consumer price index measures changes in the price level of a weighted average market basket of consumer goods and services purchased by households.

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.

DNB – De Nederlandsche Bank

Central Bank of the Netherlands.

DSO – Distribution systemoperator
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.

EBIT – Earnings before interest and tax
Earnings for the period before income tax expense and interest payments are deducted.

EC – European Commission
The European Commission is the executive of the European Union and promotes its general interest.

ECL – Expected credit losses
Expected credit loss is the probability-weighted estimate of credit losses (i.e., the present value of all cash shortfalls) over the expected life of a Financial Instrument.

EIR method – Effective interest rate
The effective interest rate is the interest rate on a loan or financial product restated from the nominal interest rate and expressed as the equivalent interest rate if compound interest was payable annually in arrears.

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.

EU – European Union
The European Union (EU) is a political-economic union of 27 member states countries that are located in Europe.

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.

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.

GW – Gigawatt
A unit of power equal to one billion watts.

IAS - International Accounting Standards
International Accounting Standards (IAS) are older accounting standards issued by the International Accounting Standards Board (IASB), an independent international standard-setting body based in London. The IAS were replaced in 2001 by International Financial Reporting Standards (IFRS).

IFRIC - International Financial Reporting Interpretations Committee
IFRIC Interpretations are developed by the IFRS Interpretations Committee (previously the International Financial Reporting Interpretations Committee, IFRIC) and are issued after approval by the International Accounting Standards Board (IASB).

IFRS – International Financial Reporting Standards
Internationally prescribed and recognised reporting guidelines developped from 2001.

kV – kilovolt
A unit of electric voltage equal to 1,000 volts.

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 TenneT and/or performance unit to attest to the accuracy of the financial statements.

MW – Megawatt

A unit of power equal to one million watts.

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.

NorNed

NorNed is a 580-kilometre long high-voltage direct current submarine power cable between Feda in Norway and the seaport of Eemshaven in the Netherlands, which interconnects both countries' electrical grids.

NWE – North West Europe

A region in Europe that includes Netherlands, Germany, Belgium, Denmark, United Kingdom, France, Norway, Sweden, Finland and Luxembourg.

OCI - Other Comprehensive Income

Other comprehensive income comprises items of income and expense (including reclassification adjustments) that are not recognised in profit or loss as required or permitted by other IFRSs.

Opex – Operational expenditure

Operating expenditure (opex) is the expense 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.

Prosumers

Energy consumers simultaneously acting as producers.

RES – Renewable Energy Sources

All sources of renewable energy including sunlight, wind, tides, waves, biomass and geothermal heat.

SIC- Standing Interpretations Committee

SIC Interpretations were previously issued by the Standard Interpretations Committee (SIC), and were subsequently endorsed by the International Accounting Standards Board (IASB). The IFRS Interpretations Committee has reissued Interpretations in this series if it considers it necessary.

TSO – Transmission system operator

A transmission system operator transports electricity on a national or regional level from producers to distributers. 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 hours a day, and seven days a week and (3) facilitating a smoothly functioning, liquid and stable electricity market.

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Disclaimer

`We´, `TenneT´, `TenneT TSO, `the company´ or similar expressions are used in this report as a synonym for TenneT TSO B.V. and its subsidiaries.

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 annual report is reported in millions of euro, unless stated otherwise. As a result, small rounding differences may occur.