

TenneT TSO B.V.

Annual Report 2022



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

** These sections reflect the Other Information as required by Part 9 of Book 2 of the Dutch Civil Code.

About TenneT TSO B.V.

TenneT TSO B.V. (hereafter ‘TenneT’) is the electricity transmission system operator (TSO) with activities in the Netherlands. Securing supply is our core task and main responsibility. We aim to ensure a safe, reliable and secure supply of electricity, 24 hours a day, 365 days a year.

TenneT has a critical role to play in the impactful journey to a reliable, affordable and zero-carbon energy system. As an electricity transmission system operator, we are the backbone of the green energy transition and need to upgrade and expand our grid as well as our grid operations to serve changing energy needs. A commitment to responsible growth is guiding our approach to these challenges, alongside our purpose, principles and strategy with clear objectives.

Our purpose

To connect everyone with a brighter energy future.

Our promise

Lighting the way ahead together.

Our strategy

The energy transition is one of the most impactful challenges facing society and energy supply. To fulfil our role in the energy transition, we are working on a responsible growth based on four strategic pillars:

- Energise our people and organisation: with an inclusive and safe environment where people enjoy coming to work. We will build a leadership model that empowers, inspires and creates growth opportunities, so everyone can perform at their best and work as one team;
- Secure supply today and tomorrow: by maintaining the grid to meet reliability targets and operating it effectively. We will design solutions to balance electricity supply and demand in the future, while meeting societal objectives and realising our infrastructure projects as promised;
- Drive the energy transition: as a green grid operator and thought leader, developing innovative instruments and playing a key role in the energy data world;
- Safeguard our financial health: by ensuring a regulatory framework to support our strategy and by delivering a return in line with what our capital providers expect, as well as by raising the necessary external financing.

Our task

The vast majority of our activities are regulated by the ACM in the Netherlands. Our core tasks are to:

- Ensure a secure and continuous supply of electricity as the key objective of our operations;
- Provide transmission services by transporting electricity along the high-voltage grid from where it is produced to where it is consumed;
- Provide system services to balance supply and demand of electricity in the Netherlands;
- Facilitate a smoothly-running, liquid and stable electricity market and support the large-scale, energy transition to renewables.

Our principles

The energy transition is a challenge that requires new ideas, new technologies and new behaviours that build on the strong foundations we have laid.

Connection

We are involved with and work actively with other parties. The challenge of the energy transition requires us to do things differently and collaborate with a wide range of partners. We know that we do not have all the answers ourselves.

Ownership

We are accountable for our words, actions and decisions.

Courage

We are honest, open and clear about what we think. We dare to make decisions, take ambitious initiatives and are willing to learn from mistakes.

Our path towards 2050

By 2050 the European Union aims to become a climate-neutral continent and by 2030 the EU already demands 55% lower emissions. These ambitions have been translated to national policies as realising an energy system that fits this ambition is an important factor. Together with partners within and outside the energy sector, including other TSOs, regional DSOs and national governments, TenneT is committed to deliver a future-proof energy system. These milestone dates may seem far away, but for TenneT 2030 is already tomorrow. This is one of the reasons why we are developing our approach regarding a Target Grid. With this, we want to connect to plans for national grid development and provide input to accelerate them. Our goal is to build a future-proof, reliable, energy- and cost-efficient power grid in time, to meet political climate targets.

Our approach is to prepare ourselves up to 2025, by when we will be at a capacity to meet peak delivery. By 2030, we will ensure that the Target Grid is prepared, which will result in having a reliable electricity grid backbone in place that can support the increasing electrification by industry and end-users. Projects are built to be future-proof, which means that we account for extra capacity ahead of time. Up to 2045, we will build the Target Grid and make sure that all sectors of the energy system are coupled, with the North Sea established as the new powerhouse of Europe. By this date, we aim to have realised an integrated onshore and offshore grid that is carbon free.

How will we make Target Grid 2045 happen?

- Back casting as a license to plan: We begin with a 2045 fossil-free scenario and plan backwards. This additional dimension of working can help us make our investments future proof and even go a step further, for example by preparing future infrastructure way ahead of time.
- Build future-proof: When building new infrastructure, we build in a way that is future-proof. If the Target Grid shows that in the future more power is needed for a station or line, we prepare for that.
- Plan for more, build what is needed: By preparing for a high electricity scenario, we are ready for scenarios with less electrification by building only what is needed no money is wasted.
- Stakeholder engagement: Working even more closely with contractors and suppliers to build the network of the future is key. We must involve stakeholders in developing robust scenarios and involve in the implementation. The Target Grid cannot be realised without collaboration: to reach each milestone, everyone has a role to play.

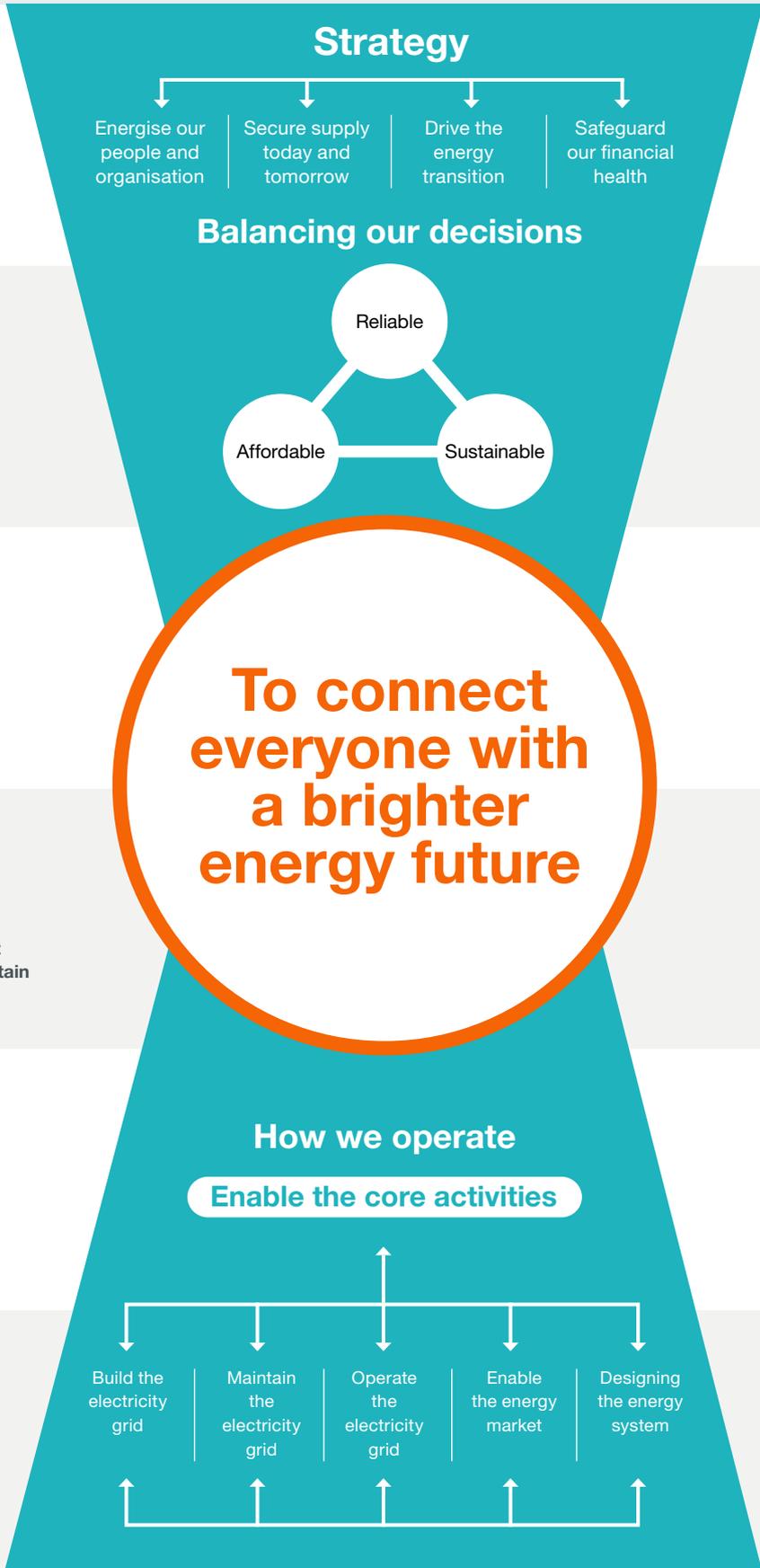
Stakeholders

Input

How we create value

- 
Employees
- 
NGOs
- 
Governments and policy-makers
- 
Customers
- 
Suppliers
- 
Regulators
- 
Shareholders and capital providers
- 
Energy market participants

- 
Extensive knowledge of and experience with operating the system and integrating energy markets
- 
Cables, lines, stations, offices and interconnectors
- 
Our skilled and motivated employees
- 
Energy, natural environment and materials to build, maintain and operate our grid
- 
Regulatory revenue, (Green) Financing
- 
Strategic partnerships and our engagement with (project) stakeholders



Output



Deliver a high security of supply, see page 7

With our knowledge and experience in operating the system and following up on our ambition to further integrate European energy markets, we are able to provide a secure supply of energy.



Ensure critical infrastructure for society, see page 9

With our assets, we ensure that we are able to fulfil our core activities and tasks. We keep building and maintaining our grid to realise the critical infrastructure, which helps us drive the energy transition and supports the economic development and human wellbeing of the people that live in our service area.



Create a safe and inspiring workplace, see page 11

Our goal is to create a working environment where our people feel safe and valued. We strive to bring out the best in our people to help them develop themselves and organise this in a way that energises them.



Create value to transition to a climate neutral economy, see page 13

We want to drive the energy transition, because we believe we are able to make a significant contribution. Realising our investment programme and innovation portfolio will contribute to the climate targets in the Netherlands and Germany, which is essential on the pathway to a low carbon economy.



Safeguard sustainable financial performance and investor ratings, see page 15

TenneT is a regulated company, that has an important societal role. That is why we strive to make choices considering the impact on societal costs. To finance our grid investments, we raise the necessary financing and meet the expectations of our capital providers.



Solve societal challenges with stakeholders and through partnerships, see page 17

We believe in the power of cooperation. Working together will help us achieve the next steps with respect to the energy transition faster and better. Furthermore, in realising our future grid, we engage with our stakeholders to consider societal objectives.

Outcome & Impact

7 AFFORDABLE AND CLEAN ENERGY



Our societal financial impact on an average household in our service area



Equivalent number of households that in theory would have been able to receive 100% green electricity

9 INDUSTRY INNOVATION AND INFRASTRUCTURE



Societal impact due to availability of our grid

13 CLIMATE ACTION



Avoided CO₂ emissions



Management Board Report

TenneT plays a vital role in society. By ensuring the supply of electricity, we make a fundamental difference to the people working and living in the areas we serve. Our work 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.

On 10 February 2023, the Shareholder TenneT Holding announced that it intends to engage in discussions with the German government, to explore the possibility of a full sale of TenneT's German activities on acceptable terms. On 24 February 2023 the Dutch government decided to further investigate a full sale as the preferred option. TenneT Holding acknowledges that its sole shareholder the Dutch government has not yet taken any final decision, and TenneT Holding will take the next steps in close collaboration with the government. TenneT's focus in the discussions will be on ensuring security of supply and safeguarding the interests of its employees, customers, suppliers, financiers and other stakeholders.

Our performance

How we want to create long term value for society is defined alongside the six outputs / outcomes of our value creation model.

Deliver a high security of supply

As a company deeply rooted in society, TenneT contributes to powering and empowering the activities of the people, households and industries in the Netherlands by ensuring a high security of supply, with a near perfect 99.99963% availability of our onshore grid. Even though having access to electricity seems to be a commonality for many, it is the result of the important efforts of our people and others working together with TenneT to ensure a continuous supply of electricity, 24 hours a day, 365 days a year.

This goal has inspired us since the company was founded in 1998. Our commitment to providing a high level of security of supply continues to drive us today, but we must do so in a far more complex, dynamic and challenging energy landscape, as we aim to contribute to the European roadmap to achieve carbon neutrality by 2050. To achieve this goal, the Netherlands has agreed in the Esbjerg Declaration in May 2022 to jointly install together with Belgium, Denmark and Germany at least 65 GW of offshore wind power by 2030. TenneT has agreed to install 22GW of offshore wind capacity in the Dutch North Sea as a part of this agreement.

While green electricity has many advantages and will be key to achieving Europe's climate goals, its supply by nature is intermittent. The volumes are steadily increasing in terms of wind energy – especially from the North Sea – as well as solar power. But we cannot just simply connect more and more renewable energy production facilities to the grid. The characteristics of renewable energy sources (RES) concerning variability and uncertainty impacts generation dispatch, system balancing, system stability and the power flow pattern in the network. As a result, the challenge is not just to build a RES-dependent grid, but also to keep it in balance and stable at all times so we can continue to provide a high security of supply - today and tomorrow.

Securing supply today

In 2022, TenneT has been able to secure again a high supply of electricity with a 99.99963% availability of our onshore grid. We are proud that we again achieved this result, despite the increasing challenging circumstances we are operating in. Although our grid availability in 2022 was again among the highest reliability levels in the world, we do not take it for granted. Around the clock, TenneT has many dedicated people working to make a high security of supply possible. The focus of this work takes place at our control centres where we operate the grid, monitor the stability and performance of the system and coordinate across borders.

Unfortunately, there were also instances this year where we experiences interruptions of power. An example of this is the Flevoland outage. A short circuit incident in a highvoltage substation in Flevoland had a major impact on the surrounding area. This led to a power outage and a lot of inconvenience in the region, including the months-long failure of a train connection.

Another significant event in 2022 was the congestion situation in the provinces of Noord-Brabant and Limburg. Rapid developments in the energy market due to high gas prices, the war in Ukraine and the ensuing energy uncertainty have led to a number of new congestion areas on the electricity grid in the Netherlands in 2022. In June, a temporary stop on new grid connections for businesses

was announced in the provinces of Noord-Brabant and Limburg. The number of connection requests from new solar parks, companies wanting to electrify and the growing number of heat pumps and charging stations grew faster than the grid can be expanded.

Immediately after the announcement, the Minister of Climate and Energy set up a task force with all stakeholders such as governments, interest groups and grid operators to find solutions to grid scarcity and also develop a national action programme. This national action programme was published in December. It includes measures to speed up grid expansions, flexible contract forms, better programming and also to make 'smarter' use of the existing grid by focusing on flexibility. In Noord-Brabant and Limburg, TenneT created extra capacity by focusing on congestion management measures, similar to traffic congestion avoidance. This involves paying users a fee to relieve the grid at busy times. The possibility of applying this to other areas in 2023 is also being investigated. Network congestion will remain a part of the transition in the coming years. Through co-operation between government, grid operators and industry, we can take the right steps towards a climate-neutral energy supply.

Securing supply tomorrow

It is important to make responsible choices when building a greener energy future. We do not only need to make sure our grid is prepared for more RES to be connected, we also have to find flexible solutions and ensure the stability of our grid. We aim to secure supply of electricity when the sun does not shine or the wind does not blow and at the same time making the transition to a climate neutral economy.

To ensure that we are able to deliver the same level of security of supply, we are working hard in several areas to create a future proof and more flexible grid. To achieve this, there are three focus areas that will be essential for securing supply in the future: grid reinforcement, market integration and system operations developments.

Grid reinforcement

Grid reinforcement is not only essential to reduce the pressure on our grid today, but also to prepare it for the increasing demands and dynamics of the future energy system. This is also a way to prevent congestion, next to the congestion management measures we have taken to relieve pressure on the grid at the busiest times. In several areas of our grid we are increasing capacity.

The fast-growth of generation capacity in the North Sea requires an increase in transmission capacity in the offshore

and part of the onshore grids. On top of this, the rapid shift to electrification in society is further increasing the need for reinforcement and additional capacity. The electricity grid was built over a century ago, with parts of our onshore grid also realised in the 1960s and 1970s. With the distance between the generation and consumption of electricity becoming greater in the past decades, our grid needs to be updated to cope with this demand and urgently requires modernisation and reinforcement. Substantial work is underway, such as the upgrade of five 380 kV overhead lines. More details can be found in the 'Ensure a critical infrastructure chapter'.

Market integration

Market integration is at the centre of the European Union's ambition to create a single European electricity market. Working closely with other TSOs, TenneT is taking a prominent role in this development. An interconnected European electricity market has physical and commercial aspects. TenneT is actively involved in both, for example by building cross-border interconnectors that allow neighbouring countries to seamlessly exchange energy, and also by facilitating the commercial electricity market between European countries.

As for the physical connection of European grids across borders, TenneT has now built multiple interconnectors, connecting the Dutch grid with the grids from other TSOs, such as the Doetinchem-Wesel interconnection that was realised a few years ago. For full details of our cross-border connections see the grid map on our website.

A major landmark in market facilitation was reached in 2022. Together with 14 other TSOs, we introduced a new mechanism to further integrate the European electricity market, making it more efficient and robust. The new Day-Ahead Flow-Based Market Coupling Mechanism enables the European power grid to transmit more electricity across borders at a lower overall cost.

With the introduction of flow-based capacity calculation, the network capacity is typically calculated taking the whole regional grid into account, as well as the economic value of the energy exchanges. Now, electricity delivery across borders within the CORE region (Austria, Belgium, Croatia, the Czech Republic, France, Germany, Hungary, Luxemburg, the Netherlands, Poland, Romania, Slovakia and Slovenia) is optimised by allocating capacity to the flows with the highest economical value. This means in general a larger value of electricity can be exchanged between zones.

System operations developments

As well as building new assets and facilitating the electricity markets, we must also invest in new concepts for operating the grid, operating a more dynamic system and making a more efficient and optimised use of our system through new digital solutions.

As our grid becomes more dependent on renewable energy sources, our Energy System Planning (ESP) team is exploring multiple solutions to ease congestion, improve reliability and manage power flows across the grid. By improving the predictability and stability of the grid, we can reduce the need to use conventional power sources to keep the grid in balance, which will therefore help to reduce increasingly high redispatch costs.

An important development to make our systems resilient for years to come is our Control Room of the Future programme, which relates to, among others, the update of our current operational system. The Control Room of the Future has the ambition to develop methodologies, processes and tools in order to guarantee excellence at system operations, including among others improved forecasts, dynamic security assessment, inertia monitoring, and topology optimisation. More information on this can be found in the 'Solve societal challenges with stakeholders and through partnerships' chapter.

Flexibility in demand and supply of electricity

Flexibility will be crucial to cope with the unpredictability and volatility of renewable energy sources, while reducing the need for grid expansion. Flexibility is how TSOs refer to using on-demand energy sources to keep the grid secure and in balance. Traditionally, TSOs used fossil-fueled power plants to guarantee an adequate system and to maintain a balance between electricity supply and demand. However, with more renewable energy sources being fed into the grid, supply and demand becomes more volatile impacting system balance and power flows within the grid. In addition, clean energy targets increasingly restrict TSOs' opportunity to use conventional power as a source of flexibility.

As a solution, TenneT, along with other TSOs, is looking for new sources of flexibility. Storing electricity in energy carriers, like battery energy systems and hydrogen, is an important area of focus, as they provide low-carbon on-demand flexibility. The challenge is to achieve this at the scale needed for a fully decarbonised energy system and how to integrate widely distributed sources of stored electricity into the grid. The location of flexible energy sources will also become increasingly critical – for example placing large electrolyzers near the coast where offshore

wind is landed to shore. Innovation and partnerships are critical in TenneT's flexibility strategy. (For more detail on innovations in Flexibility see the 'Solve societal challenges with stakeholders and through partnerships' chapter).

By working on these areas, we are preparing ourselves to be able to continue ensuring a high security of supply, despite the increasing complexity of running a climate neutral energy system.

Ensure critical infrastructure for society

TenneT is one of Europe's largest investors in national and cross-border transport capacity on land and at sea. As such, our infrastructure will be key to Europe's ambition to be a climate-neutral continent by 2050 as we deliver a grid predominantly supplied by renewable energy sources, in line with the Paris Agreement and national and European climate targets. As well as planning for the future, we need our current and often ageing asset base to be maintained and in good working order, keeping the lights on and meeting fast-rising demands for electricity.

In 2022, our grid and the wider energy market experienced the consequences of the war in Ukraine, with higher energy prices, inflation, resource scarcity and supply chain disruption. Maintaining the pace of our investments in new critical infrastructure, while also maintaining our existing assets, was particularly demanding in this unpredictable context. At the same time, these geopolitical developments mean an acceleration of green energy targets and a raising of political ambition to achieve energy independence through renewables. As a result, 2022 saw governments become more proactive in orchestrating the energy transition and national industrial policy.

For example, in May 2022, the Esbjerg Declaration highlighted the role of North Sea offshore wind in strengthening the EU's energy security. The leaders of the European Commission, Denmark, Belgium, the Netherlands and Germany pledged to expand the combined North Sea offshore-wind capacity of the four countries to 65 GW by 2030 and 150 GW by 2050. More than half - 40 GW - is accounted for by TenneT Group, with 22GW in the Dutch North Sea. TenneT will deliver the new connections to implement these ambitions within the next 10 years.

To accelerate offshore development, the Dutch government updated the Offshore Development Framework in June 2022. The plan significantly increases offshore wind ambitions and require more projects to be delivered around the 2030 timeframe. As a result, TenneT has been asked to

deliver eight 2 GW HVDC offshore grid-connection systems between 2028 and 2031.

To accommodate these offshore developments, we also need to expand and strengthen our onshore infrastructure. In addition, we were proud of the reinforcement and maintenance work we performed to boost transmission capacity and our innovation efforts so we can drive higher utilisation of our existing assets.

Ultimately, the combination of energy market uncertainty, the urgency of energy security and the accelerated shift from fossil fuels to renewable electricity make our investments in critical infrastructure more crucial than ever.

Our performance in 2022

The war in Ukraine and resulting energy crisis made tendering for key strategic projects significantly more challenging, not only because of rising costs but also due to supply chain disruption and the need to find alternative sources of critical materials, such as steel procured from Russia and Belarus. Many of our suppliers also faced their own supply chain difficulties, creating knock-on effects through the system.

Despite these challenges, our focus in 2022 and in coming years is all about increasing our outputs. In 2022, we invested EUR 1.5 billion in the grid, similar to 2021.

Offshore

The North Sea plays an important role in Europe's climate ambitions as it has the potential to be Europe's clean-energy "power house" of the future. Realising these ambitions in a sustainable and environmentally friendly manner will require international co-operation among European governments, fellow TSOs, NGOs and other stakeholders. Wind farms will need to be interconnected across countries, supported by distribution hubs and high-performance grid infrastructure. This vision will be key to boosting energy security in Europe, enabling a transition away from fossil fuels.

The innovative 2GW Program is a key element in TenneT's offshore strategy and plays a crucial role in delivering the offshore wind capacity needed for Europe's energy goals. The programme combines a new technological, administrative, and contractual standard with a unique and holistic transnational approach. Carried out in a forward-looking market design it provides a blueprint for future offshore grid connections, enabling higher wind capacity to be connected faster and at a lower cost. For 16GW of green energy, TenneT now only needs 8 grid connections – less

than half the number of what would be needed if using previous systems. This will strongly reduce the workload and save time, money, and resources in the process.

In 2022, we made good progress on some of our key offshore projects:

- In June, we received grid readiness certificates for both Hollandse Kust (Zuid) grid connections, with a 1,400 MW transmission high-voltage connection for the offshore wind farms Hollandse Kust (Zuid) I and II;
- In September, TenneT completed the rollout of the Hollandse Kust (Noord) topside transformer platform, for installation 18.5 km off the coast of the Netherlands. The platform will be followed by two more – each with 700 MW capacity – to bring green electricity from the Hollandse Kust (Noord) wind farm onto the onshore grid. The wind farm is expected to be operational in 2023;
- In the third quarter of 2022, the jacket of Hollandse Kust (West Alpha) was installed. This is an offshore transformer-grid connection system, some 50 km off the coast of Egmond.

Onshore

The share of electricity in the energy mix is expected to grow from 20% today to 40-60% in 2050. To make sure we can facilitate this demand, and connect the growing infeed of renewables, we need to expand, strengthen and modernise our onshore grid. To alleviate the current pressure on our existing grid, we plan to invest substantially in the onshore grid in the next decade.

Making more use of our existing assets is a key part of our onshore grid reinforcement work, helping our grid meet higher transmission demands without the need to build new lines. This work helps strike the balance between affordability, security of supply and sustainability. An example of this work in action is our new Better Use of Existing 380 kV programme (Beter Benutten). On the 52 km Diemen-Lelystad-Ens connection, we have replaced and reinforced existing lines and pylons to increase the transmission capacity. The project is a pilot to explore reduced lead times. While the first section was already commissioned in 2020, in March 2022 the technical upgrade of the second section was completed which means that the connection is now technically suitable for transmitting more electricity. We are also expanding transmission capacity on the Geertruidenberg-Krimpen aan den IJssel connection.

Furthermore, on the 150 kV connection between Tilburg and Best, TenneT is reinforcing the grid and replacing overhead lines with underground cables using the horizontal drilling

method. In a pilot in 2022, horizontal drilling was applied over a distance of almost 2,000 meters. This method minimises negative impacts on society and environment.

Maintenance

As TenneT's onshore grid comes under more pressure, with increased loads and fast-growing demand for new connections, it is not only important to extend our network but also to maximise the use of our existing assets. In this respect, it is essential to maintain our grid so that all our existing assets are available for use, have a maximum lifecycle and perform their intended function. In doing so, we not only boost security of supply but also improve affordability for society. Maintenance accounts for approximately 40% of our investments as a TSO.

With some assets in our network dating back to the 1960s and 1970s, part of our maintenance work is concerned with the replacement of obsolete assets with new equipment. To ease this process, we aim to standardise and modularise our equipment as much as possible, making it easier and more efficient to fit and maintain assets that share common design and components. The modules can also be tested and configured in a controlled environment before installation. We are following this 'plug and play' approach with our Bay Replacement programme, for example, currently in pilot phase before going to full scale roll-out, replacing more than 140 end-of-life substations.

Create a safe and inspiring workplace

Every day at TenneT, we are working hard to deliver on our purpose – to connect everyone with a brighter energy future. It is a purpose that drives each of our employees and contributes to create an inspiring and motivating workplace. As a company that powers society, we rely on the power of our growing workforce to help us fulfil our societal task to provide a secure supply of electricity, while achieving the challenges of the energy transition.

We consider TenneT's employees to be our most valuable asset. Our physical assets on land and at sea are critical infrastructure and they are the result of the combined efforts, teamwork, and commitment of people across our organisation – and others working with us – to achieve our strategic goals. At TenneT, our workforce comprises primarily of our own employees, the colleagues that work for us, a total of to 2,434 employees in 2022 (compared to 2,122 employees last year). In addition, we have many other valued colleagues that are externally contracted that help us deliver on our ambitions and ensure that we are able to fulfil our promise. In 2022 this amounted to 1,083 colleagues, compared to 1,088 last year. Their combined efforts ensure

that we are able to keep the lights on every day and support us in our ambition to drive the energy transition. With the increasing ambition from the government we need to grow even more to meet them.

However, many other players in the energy market are gearing up in the same timeframe, and competition for talent – especially in technical roles – is intense. We are competing in a small, candidate-driven market. As such, we have to be smart in our recruiting, and ensure the strategy covers being an employer of choice as that is where people like to work and stay for a long time. To identify and interest talents in TenneT we intend to engage with them early in their career and ideally stay in touch through our talent pools. To this end, education, and partnerships with academic institutions play an important role in our recruitment efforts (see 'Solve societal challenges with stakeholders and through partnerships'). Examples of this includes internships and also introducing students to our work in their studies such as with the Power Minor which we have been working together with the universities of applied sciences of The Hague and of Arnhem and Nijmegen.

We must be responsible in the way we grow, especially regarding our people. We can't simply keep adding more people to our organisation, as more people doing the same will not transform TenneT's ways of working to the next level. Our growth needs to be realised in a responsible manner and at a pace that achieves the output we want to deliver in the best possible way.

We are aware that accelerating the scale and pace of our work means that additional challenges might occur with respect to safety – for our own employees and those of our contractors. That is why we need to grow and realise the future energy system in a responsible way. We are determined to create a safe environment for our people to work, where each person returns home safely at the end of the day. This year, we recorded a Total Recordable Injury Rate TRIR of 2.0 a slight improvement compared to last year's safety performance as when the TRIR was 2.6.

Next to ensuring a safe workplace, we also aim to maintain the health of our workforce. That is why we also track our absentee rate on a quarterly basis. In 2022, we noted an increase in our absentee rate as this was 3.7 (3.1 in 2021). At the beginning of this year, many COVID-19 measures from the Dutch government were in effect. These measures were scaled down in the course of 2022, however the effects of the pandemic still impacted the health of our people. In 2022, colleagues still caught COVID-19. Some unfortunately also suffer from Long-COVID, and many other

infections increased when people met again. On the other hand, the pressure on our workforce due to absent colleagues potentially also affected TenneT, i.e. mental health and higher workload as examples of this. This underpins the importance of our support program Always Energy, and discussions around leadership and how we work at TenneT.

Ensuring people feel energised and are motivated to be part of our company is equally important. A good balance between on-the-job training and developmental opportunities are needed to grow individual talent, as well as creating a workplace where people feel energised, like to work, are inspired and are connected to us as a company. That is why we provide our colleagues the opportunity to invest in themselves. An example of this is our TenneT Academy, which supports our colleagues find and select courses to help them in their careers.

We also want to be a company where our employees grow and feel confident to speak up and be themselves. As part of this, we see the advantages of building a diverse and inclusive culture, with talents that reflect the communities we serve. Through diversity, inclusion, and a safe working culture, we aim to create more innovative solutions to drive the energy transition.

To ensure our workforce feels energised and that they are able to contribute every day, we aim to create a work environment that is safe and inclusive. We have described our views and policies on safety in a physical sense, but creating a workplace where our workforce feels safe in a non-physical manner is another important aspect of safety, such as social safety and mental health. This means not only paying attention to physical safety, where the biggest impacts are at our project sites, but also in our offices. For everyone at TenneT, we want to create a safe working environment, also in a broader sense. Feeling accepted and encouraged to speak up is an important part of the success of TenneT. So step by step we are working on building a culture of openness and mutual respect. It is of great importance for the success of TenneT that people feel they can speak freely without fear of negative consequences and build a culture of openness and mutual respect with no discrimination.

At TenneT we appreciate difference, it is a prerequisite for solving the energy transition. So no matter where you are from or who you are we want you to feel welcome and accepted at TenneT. This is particularly visible in our International Trainee group, just to mention one example. This traineeship welcomes participants from both the

Netherlands as well as from other countries, with different educational backgrounds and through assignments in several units within the company they start their careers at TenneT.

Therefore we are embedding in every step of our employee journey. It requires long time efforts as unconscious and conscious biases are normal and need attention to take good decisions in recruiting, promoting and developing our employees. This is a constant learning process, where our employees are the most important input givers. When looking at the composition of our employees, we see that approximately 25% are female and approximately 45 different nationalities are amongst our employee base. We will continue to work on a more diverse and inclusive workplace as we are aware there are many different dimensions to this which we can still improve on. We also organised and participated in events to promote I&D. For example, we held an open day for school students called Girls Day in April 2022, in which over 6,000 young women participated. With this we are aiming to encourage more young women to pursue careers at TenneT. Next to this, we celebrated National Coming Out Day 2022 in October through our social media channels, showing our support for the LGBTQIA+ community.

To ensure that our people feel energised and enabled to do their work, our organisation has been on our Transforming TenneT journey since 2018, designed to re-calibrate our business for growth. Today, given the scale of the challenges in the energy transition and accelerated climate ambitions, we are strengthening our working practices such as increased focus on performance management. We have set clear transformation priorities to drive our performance and help us further accelerate.

To meet our end goals, we are making choices as we are not able to address all challenges at once. To move faster and simplify, we are also adopting smarter ways of working and how we can organise ourselves, such as collaborating more with other stakeholders, i.e. with partners in our supply chain. The new long-term framework agreements with suppliers in the offshore 2GW program are an example of this approach (see 'Solve societal challenges with stakeholders and through partnerships'). This is how we are able to organise ourselves for growth within a running business.

To increase our delivery speed, we also enhanced our internal new ways of working with respect to performance management, which has been rolled out across the company. The aim is to provide a standardised approach for performance management that can scale with our

growth. Regular discussion with employees around results, and addressing obstacles in their path, stimulates the development of our employees individually and collectively.

Create value to transition to a low carbon economy

As a European TSO, TenneT creates value for society by driving the energy transition and delivering a future-proof electricity grid. By playing our part, we contribute to the EU's ambitions to be a climate-neutral continent by 2050. However, as we expand and reinforce our grid, we are conscious that we also have a negative impact on the natural world around us. Procuring and producing the materials needed to build our assets on land and at sea has an impact on nature, greenhouse gas emissions, pollution and resource scarcity. And as the energy transition is a global challenge involving a wide array of other parties from the energy sector and associated supply chain, our sector's demand on resources and impact on nature is growing all the time.

Therefore, as well as contributing to societal objectives by driving the energy transition, TenneT can create additional value by leading as a green and responsible grid operator. Through our nature, climate and circularity ambitions, we aim to shape what we believe is necessary for a responsible growth path. With these ambitions, we can take ownership for our impact and show leadership.

We report our progress in each of these key areas, with targets set for 2025 regarding climate neutrality, net zero impact on nature, and circularity.

Climate

As a responsible grid operator, we strive to make a green transition in our own operations by reducing our carbon footprint. In line with Science Based Targets that align with the goals of the Paris Agreement, we have set ambitious emission-reduction goals for 2030, aiming to cut our direct emissions in scope 1 and 2 by 95% and our indirect emissions (scope 3) from purchased goods and services and capital goods in our supply chain by 30%. These targets are an extension of our 2025 climate-reduction targets.

Around 95% of TenneT's CO₂ footprint is due to grid losses – the loss of electricity that inevitably occurs during power transmission across our network. Unfortunately, as we expand our network to support the energy transition our grid losses might grow proportionally higher. Although we cannot prevent grid losses from occurring, we aim to reduce their climate impact. To this end, we green our grid losses by using guarantees of origin (GoO's) from renewable

sources. In 2022, we have been able to green for 100% of the grid losses, equal to 2021.

Another contributor to our carbon footprint is SF₆ emissions. Sulphur hexafluoride (SF₆) is widely used by TSOs as a highly effective insulator and extinguisher in switching installations. But it is also a greenhouse gas, with one unit equivalent to over 23,500 units of CO₂. If the gas leaks, during installation, maintenance, or due to faulty equipment, it is extremely damaging for the environment. While SF₆ leakages currently only account for around 1% of our carbon footprint, we still aim to mitigate its impact as much as possible. We are working to find sustainable alternatives to SF₆ that provide similar safety properties without harmful emissions. We aim for two-thirds of our assets to be SF₆-free in 2030.

We notice that the potential to collaborate with suppliers on solutions is easier for 220 kV and 380 kV assets as this allows suppliers to develop scalable solutions for the wider European and international market. For smaller installations of 150 kV, it is harder to find suppliers to engage in solutions focused only on one market. Nevertheless, we are holding dedicated supplier sessions to explain our strategy and why we are determined to steer away from using insulating gas with such high global warming potential.

Achieving our SBTi target on scope 3 emissions requires extensive engagement and a collective outlook among our suppliers on how we can collaborate to reduce emissions from the products and services we buy. Gathering enough quality data relating to our supply chain is key to making progress. To this end, during 2022, we executed an analysis on our future demand for the next decade and identified asset categories that contribute to a significant portion of our scope 3 emissions. By identifying our demand of different assets over the next 8 to 10 years and assessing the scope 3 emissions related with every type of asset, we aim to identify those procurement categories that are the most carbon intensive and have the highest potential for emission reduction. Based on this analysis we can set the right focus in integrating sustainability into the sourcing strategies of all our procurement categories.

We are increasingly taking a holistic view on sustainability in our supply chain. Next to Life Cycle Assessments (LCAs), we use tools such as the Environmental Cost Indicator (ECI) to incentivise our suppliers to reduce the environmental impact of the products and services we buy from them.

Nature

As our assets are located on land and at sea, we have an inevitable impact on nature. We do our best to limit our negative impact, especially in vulnerable nature areas, and where possible to have a positive impact by using environmentally friendly and innovative techniques. Our goal is to reduce our net impact on nature to zero.

Our code of conduct sets out how we should carry out our maintenance and construction work, in accordance with nature conservation laws. As part of this, we carefully track the number of environmental incidents – such as leakages of SF₆ gas, oil leakages from our assets, and other occurrences that have a negative impact on nature. In 2022, we recorded 2,866 litres of oil leaked from our cables, in comparison to 1,798 litres of oil in 2021. Unlike our newer onshore and offshore assets, cables from older parts of the onshore grid are more prone to leak oil. A leakage that occurred in Q1 2022 on the connection Waalhaven – Oudeland contributed significantly to the total litres of oil leaked. We regret these instances where oil was leaked and always monitor our assets closely to learn from the root causes and take appropriate measures to prevent leakage or mitigate the impact of the leakage. In addition to the oil leakages, we record incidents where we have a negative impact on the environment, soil, air or water. In 2022 we recorded 44 (2021: 40) environmental incidents.

In our commitment to have zero impact on nature, we aim to create a positive impact where possible. In 2022, we conducted a first monitoring campaign of the use of eco-friendly cable crossings at Hollandse Kust (Zuid) Alpha with Waardenburg Ecology. These replace the layer that is usually made of granite with calcareous rocks, which provides a safe breeding space for fish. The development of habitats around these eco-crossings will be studied for three successive years.

We are increasingly using the technique of sinus mowing around our onshore substations, to improve insect habitats. Using grass at substations supports 40% more insects than sedum or gravel. Furthermore, in Zevenhuizen, we worked on creating additional ecological value through a nature-inclusive design. This includes installing bird boxes and bee hotels to improve biodiversity and using herb-rich grassland where possible.

A more comprehensive overview of our Nature measures can be found on <https://www.tennet.eu/grid/green-map>.

Circularity

To realise our projects and drive the energy transition it is necessary to use raw materials and components that are naturally scarce, in short supply or difficult or even impossible to recycle. These challenges become more severe as competition for resources intensifies across the global energy sector. The scale of work required across the energy transition is immense, but resources are limited. This is not only due to the natural scarcity of critical materials such as copper, but also due to the logistical supply-chain challenges experienced in 2022, following the war in Ukraine and COVID-19 lockdowns in China. This impacted the availability and price volatility of key commodities, such as copper, steel and aluminium.

To reduce the environmental impact of our materials and meet our circularity targets, we are adapting our tenders to include stricter circularity requirements, for example by asking suppliers to provide evidence of the percentage of their materials that are recyclable and recycled with 'raw material passports'. Requirements such as this are being increasingly applied through our supply chain, either as requirements within tenders, or as incentives in our procurement.

On the basis of our raw material passports, we are working on improving our insight into our impact on virgin copper. In 2022, we further improved our insights by conducting base-case life cycle assessments on those assets where we make most use of copper (cables, transformers and shunt reactors), and have gained a better picture of our overall copper usage. We believe that when the full analysis is completed, it will indicate that the percentage of recycled copper will range from 25-40% of our total copper purchases.

A major milestone in our journey to reduce our impact on virgin copper has been made in 2022 by implementing the Environmental Cost Indicator (ECI) in our tenders for new corporate framework agreements for purchasing AC Cables, Power Transformers and Shunt Reactors. This will not only give us exact insights in the amount and sourcing of copper in these assets, but also directly incentivise our suppliers to increase recycling rates in their products.

To understand the long-term impact of raw material scarcity on our business and how we can mitigate its effects, we are currently developing a strategic perspective on raw material scarcity. In particular, we are looking at the strategic imperatives of attracting and securing supplies of scarce raw materials and reducing our dependency on them through enhanced circularity.

The result will be a new policy that we can use to evaluate our current status and provide the business with concrete guidance.

For waste, we are also working on improving our insights into the amount and types of waste we produce. In 2022 we have laid the foundation for a complete makeover of our corporate waste reporting processes. In view of the expanding requirements imposed by the Corporate Sustainability Reporting Directive (CSRD), we have started to further improve our internal waste reporting processes throughout the different parts of the organisation and to define clear definitions, requirements and processes for waste reporting.

Safeguard sustainable financial performance and investor ratings

The next years will require large scale investments in our grid as a result of the expansion of renewables in the Netherlands and Europe. This is the backbone for the energy transition. As one of the biggest investors in the energy transition in Europe, we are deeply committed to make an important contribution to this fundamental transformation of society and economy. This is also reflected in our financial strategy.

At the start of 2022, TenneT already faced a challenging investment agenda, with an ambitious project portfolio to drive the energy transition. Following the outbreak of the war in Ukraine in February, political and societal demands for energy security have intensified, resulting in calls for the energy transition to be accelerated even further. In the short-term, the combined impact of disruption in the supply chains in the aftermath of the recent pandemic and the war in Ukraine led to higher prices of goods and services. For example increased raw material and energy prices, raised the costs of our investment portfolio and increased the costs for ancillary services which affects our working capital. Unpredictability in the financial markets, with volatile and fast-rising interest rates, further impacts our financing costs and planning for funding.

Results

The Ukraine war has had a notable impact on TenneT's activities, accelerating rises in energy prices, as well as driving strong awareness of the importance of security of supply. To this end, TenneT is seeing companies accelerating their investments in electricity demand and governments becoming more proactive and ambitious in bringing about the energy transition. Both the Ukraine war and the COVID-19 pandemic have had a major impact on

the prices of the raw materials TenneT uses in its assets. This included steel, aluminum and copper.

High market price levels of energy have also led to a significant increase in ancillary service costs. The ancillary service costs have increased from EUR 953 million in 2021 to EUR 2,033 million in 2022. Ancillary services are costs TenneT must incur to compensate for grid losses, to maintain the energy balance in the grid and to pay for alternative routes for the electricity when grid sections are congested or unavailable due to grid expansions. The increase of the ancillary services costs is mainly caused by a price effect as well as volume effects. The electricity prices reached record levels in 2022, which impacted the costs of (balancing) capacity and energy products. The necessary planned outages in combination with the increasing infeed of renewables cause additional transmission restrictions and grid losses. Transmission restrictions are further impacted by changes in the availability of generating units as a result of the Ukraine war.

Since the higher costs of the ancillary services costs will be reimbursed through future tariffs, underlying revenues increased accordingly and as such there is no impact on our underlying EBIT. As the ancillary services costs are reimbursed in future tariffs, TenneT will receive the cash flows at a later stage and as such TenneT is pre-financing these higher ancillary services costs.

Underlying EBIT increased from EUR 228 million in 2021 to EUR 312 million in 2022. The increase of our EBIT is partly caused by higher revenues as a result of increased regulatory returns due to increased interest rates. The increase of interest rates will be reflected in increased future finance expenses which are not part of EBIT.

Underlying financial information is based IFRS plus 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 are required to be returned through future tariffs are recorded as an asset or liability, respectively. TenneT's Management Board believes that the presentation of underlying financial information provides additional relevant insight in the actual financial position, financial performance, and as such economic reality. By comparison, the consolidated financial statements are prepared based on the International Financial Reporting Standards as adopted by the European Union (hereafter: IFRS). Based on prevailing opinion on IFRS it is not allowed to recognise amounts to be received or are required to be returned through future tariffs.

As such our IFRS result reflects only to date our high costs during 2022, mainly due to the earlier described ancillary services costs, but does not account for future reimbursements we will receive through correspondingly higher tariffs from grid customers. As a result, TenneT reports an IFRS EBIT loss for 2022 amounting to EUR 901 million (2021: loss EUR 269 million).

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 1,527 million in 2022 and slightly decreased by EUR 23 million compared to 2021 (EUR 1,550 million). The investments in 2022 related for a significant part to the following projects under construction: offshore projects (Hollandse Kust projects) and the onshore projects North-West 380kV and South-West West 380kV.

Our large-scale investment programme requires broad, sustainable and timely access to financing with a good balance between equity and debt to maintain our solid credit ratings. To that end, we are very pleased that the Dutch government has provided EUR 1.2 billion in 2022 to cover the capital requirements of TenneT TSO B.V. The Dutch state has included EUR 5.11 billion of equity in the state budget till 2025. Of this budget, EUR 1.2 billion was received in 2022. The amounts for 2023, 2024 and 2025 of respectively EUR 1.8 billion, EUR 0.6 billion and EUR 1.5 billion as included in the budget are conditional and subject to final reviews.

Propelled by the war in Ukraine and the desire to gain independence from Russian natural gas, our investments in a carbon-free, secure, and reliable electricity grid are gathering pace. This requires constant vigilance and sustained investment. As the TSO responsible, we need to deliver onshore and offshore grid expansion and renewals – on time and within budget. To drive the energy transition, a range of decisions must be made from standards on manufacturing devices, leaner permitting procedures, integrated system planning (including hydrogen) to close(r) co-operation with large customers, consumers, other TSOs and DSOs. This requires European and national legislation and regulations to keep pace with developments, as well as an investment framework that enables us to meet the needs and objectives of businesses, households, the economy, and politics. Our investments and operations need to be supported by a regulatory framework with a long-term focus and a high degree of reliability and predictability. While regulatory periods are typically only established for a period of three to five years, the underlying methodologies in principle provide a stable long-term regulatory framework. The nature of our business and the scale of the energy

challenge require us to think decades ahead to determine how and where to invest. We need to be able to rely on a regulatory framework which can do the same and allows us to recover our long-term investment costs and our operational costs.

Together with Strategy& TenneT performed a study regarding improving the TSO regulation in the context of the European Green Deal. Regarding operational expenditure (OPEX) non-recovery we conclude that as operational costs are expected to rise structurally, the current revenue regulation frameworks, based on historical costs, leads to under-remuneration of operational costs. As such we propose forward-looking estimates for capitalised expenditure (CAPEX), OPEX and ancillary services costs. Revenue regulation should incentivise TSOs to implement cost efficient solutions in situations where OPEX- or CAPEX-based solutions are substitutes and as such a total expenses (TOTEX) approach is preferred. Moreover we conclude that incentives to stimulate and boost more innovation such as digitisation and flexibility are needed as the current framework does not create sufficient momentum.

To this end, the regulatory framework was changed by the new estimation method for OPEX and CAPEX. A shortfall in estimation that is based on historical data is mitigated by ex-post settlement of all investments with a in fixed assets useful life of more than 10 years, as growth is expected based on the planned investment of the Investment Plan. The regulation furthermore provides for the timely recovery of investments of national importance (“Rijks Coördinatie Regeling” investments) by means of direct compensation in the year the costs occurred (T-0). The operational costs estimates are based on a historical average of three years. Operational expenses for onshore are adjusted by 1% of the change in acquisition value of the projects to reflect growth and decline in operational costs as a result of changes in the asset base.

The regulation makes use of non-robust efficiency measures as a result of a flawed international TSO benchmark. TenneT clearly demonstrated the limitations and showed that the benchmark result cannot be applied. Following discussions, ACM amended the efficiency score from the initial result of 71.5% to 89.1%. TenneT challenged this decision in court, as the additionally outcome is still too low in our view. TenneT also filed an appeal on the changed regulation for the operational costs (not ancillary services) of the system operator and the project specific efficiency assessment of Borssele. The results of the court case are expected in Summer 2023.

Together with all grid operators TenneT also filed appeal against the determination of the WACC. The annual investment portfolio of TenneT will continue to grow over the next years making TenneT a key contributor to the electricity infrastructure of the future. We expect that due to the investment portfolio the number of employees will also increase in the coming years.

In Q2 2022 ACM issued a statement with its intention to assess a financing solution for the impact of the current shortfall in remuneration for the costs of ancillary services due the current market conditions. ACM has meanwhile communicated its intention to include an advance (between 25%-40%) of the expected difference between the budgeted and actual costs of ancillary services for the year 2023 in the tariff proposal for 2024. ACM has indicated that the final chosen percentage within the indicated range will depend on the stability of the expected tariff developments. ACM has the intention to include an advance in the tariffs of 2025 and 2026 as well, if the market conditions provide reason to do so.

The financing of those investments is fully arranged through TenneT Holding B.V. To that end, we are very pleased with the aforementioned announcement of the Dutch government announcement regarding the inclusion of over EUR 5 billion in its State budget up to 2025 for our activities when TenneT needs them to maintain its credit ratings.

Solve societal challenges with stakeholders and in partnerships

The energy transition is one of the biggest technological and societal challenges of our times. Shifting from fossil-based power to mainly renewable power by the EU's target of 2050 means that Europe's energy system will undergo fundamental changes in the coming decades. The task of achieving these goals, in just over 20 years, is too great for any one player to act alone. It requires smart solutions and a tremendous collective effort from multiple stakeholders.

TenneT seeks to actively participate in the dialogue and co-operation with our stakeholders to address the complexities of the energy transition. For example, we work together with other European TSOs as a member of the European Network of Transmission System Operators (ENTSO-E), and with industry partners through co-operation with industry associations such as Energie Nederland and Vereniging voor Energie, Milieu and Water (VEMW). Furthermore, we are a member of the Nederlandse Vereniging voor Duurzame Energie (NVDE), collaborate with

academic institutions, and participate in think tanks on topics related to the energy transition. These partnerships are essential not only to deliver on our own strategic goals, but also to achieve the societal objectives of building an affordable, reliable and sustainable energy system.

Strategic partnerships and innovation are not only essential to unlocking new technological solutions that drive the energy transition; they are also critical to TenneT's strategic objectives to secure supply today and tomorrow, energise our people and workforce and safeguard our financial health. Below is a non-exclusive but representative list of the partnerships we contribute to.

The future electricity grid will increasingly depend on high-voltage DC (HVDC) technology, as it allows TSOs to transmit far higher volumes of DC power more efficiently and with lower grid losses to the onshore grid over much longer distances. However, developing an interconnected and interoperable DC grid requires significant innovation in DC technology. To this end, TenneT participates in READY4DC, a large and diverse community of experts, including technology suppliers, which will assess the major technical and legal aspects of building an interoperable multi-terminal, multi-vendor DC grid in Europe.

The Control Room of the Future (CROF) aims to prepare system operations for the future, from methodology, process and tools perspectives. For instance, it looks at increasing grid utilisation and automation, by making TenneT's grid control centres future-proof so they can handle the challenges of our increasingly data-driven grid. A roadmap for the CROF R&D programme has been set, including software development, grid data, grid security assessment, system dynamics, decision support, communication interfaces and operator training.

Achieving the energy transition also depends on the development of a fully integrated and cross-border connected offshore grid. In the North Sea Wind Power Hub (NSWPH) project, TenneT Netherlands, TenneT Germany, Energinet and Gasunie propose a fundamentally new approach to long term offshore grid planning, combining wind power in-feed and interconnection to surrounding North Sea countries. A research and engagement programme has been in execution which currently forms the basis for several initiatives to prepare for the first "hub-and-spoke" projects, meaning that offshore wind farms will connect to one or several hub islands.

Furthermore, together with fellow European TSOs, TenneT is developing a Crowd Balancing Platform called Equigy. This cross-border blockchain platform enables participants to actively offer smaller flexibility devices, such as car or home batteries, on the electricity balancing markets. As traditional consumers of electricity can now also become a provider of flexibility services, Equigy opens up the market to more participants and aims to increase decentralised flexibility by doing so.

To foster connections and recruit new talent – especially scarce technical talent – it is essential for TenneT to forge close partnerships with the academic world and research centres, such as TU Delft or the University of Wageningen. Together with the vocational education institute ROC van Twente TenneT is offering a new module specifically designed to prepare technicians for the energy transition. Vocational technical training programmes like this are essential for building the talent resources we need to drive the energy transition.

To secure our financial health, TenneT aims to contribute to a reliable and predictable regulatory framework that supports our (financial) strategy. Therefore, we engage in dialogues with our regulators to discuss our strategy and the role of regulation in this.

To secure a solid financing and ensure that we can drive the energy transition in an affordable way, we maintain strong relationships with our shareholder, the Dutch state, and with the banks that participate in TenneT Holding's Revolving Credit Facility (RCF) – ABN AMRO, BNG, BNP Paribas, Commerzbank, Deutsche Bank, HSBC, ING, NatWest, Rabobank, Santander, UniCredit and SMBC. The majority of these relationship banks also participated in TenneT Holding's previous RCF, showing the strength of our long-term relationships. Through these partnerships, we are able to secure our financing.

Corporate Governance

Compliance and integrity

A culture of Compliance and Integrity is essential for TenneT's sustainable success. Therefore, we strive to prevent and - at an early stage - identify and respond to compliance and integrity risks that could jeopardise the implementation of the company's strategy and objectives and lead to economic and/or legal consequences, as well as reputational damage.

Especially in view of the high annual investment volume, we consider the compliance risk increasing. In 2022 the Compliance and Integrity Team (ARC-COI) became part of the new ARC Unit (Audit, Risk & Compliance Unit). The Director of the ARC Unit reports to the CFO.

Our Code of Conduct (updated in 2022) with our Guiding Principles "Ownership", "Connection", and "Courage", and a number of compliance directives guide our employees to conduct business ethically and to comply with the applicable laws and regulations. All employees are requested to follow e-learnings on Code of Conduct topics and all new employees participate in compliance trainings as part of their onboarding program.

Data privacy

In the course of its business activities, TenneT regularly processes personal data. We use standardised processes to assess risks and protect the rights of data subjects. Compliance with external laws and regulations, as well as internal rules is ensured by the responsible specialist departments, which receive advice from the data protection team. Moreover, in each unit a Privacy Champion is the main point of contact for privacy matters. This liaison between the Privacy Champions and the Privacy team furthers two-way communication and to-the-point privacy advice by the Privacy team.

TenneT regularly reviews its processes for processing personal data and trains its employees to meet data protection requirements. External service providers are requested to sign data protection agreements.

Also within the new ARC Unit the independent function of the data protection officers is guaranteed.

Advice & reporting

ARC-COI advises the business on various compliance, integrity and data protection aspects and regularly reports to the TenneT Group Executive Board and the Audit, Risk and Compliance Committee of the Supervisory Board regarding such topics.

Various channels exist through which (potential) Code of Conduct violations, including compliance and data protection issues, can be reported. Moreover, a Speak up portal, which is operated by an external party, allows for (potential) Code of Conduct violations to be reported (anonymously).

Identified compliance risks are dealt with by the Compliance and Integrity Committee in its quarterly meetings. In 2022, no compliance incidents with a material impact were identified for TenneT. Material impact is defined in our risk matrix as a breach that has a significant adverse effect on TenneT's reputation and/or financial position.

Risk Management and Internal Control

Professional risk management with integrated internal control processes are key throughout the organisation that results into effective risk-based decisions

Risk management and internal control framework

Risk Management continuously identifies risk, assesses severity of risk, prioritises risk, implements risk responses and maintains a portfolio view. It reports the identified uncertainties, opportunities or control issues proactively on a quarterly basis towards the Executive Board, Supervisory Board and Senior Leaders. The principles of risk management and internal control should be taken into account in all activities performed at and for TenneT.

Risk management facilitates top down and bottom up dialogues, workshops, detailed analyses and general trainings on risk awareness at all levels within TenneT. The resulting outcome provides management insights to take risk-based decisions that support the achievement of objectives set at all organisational levels.

The focus and key objectives of risk management are to:

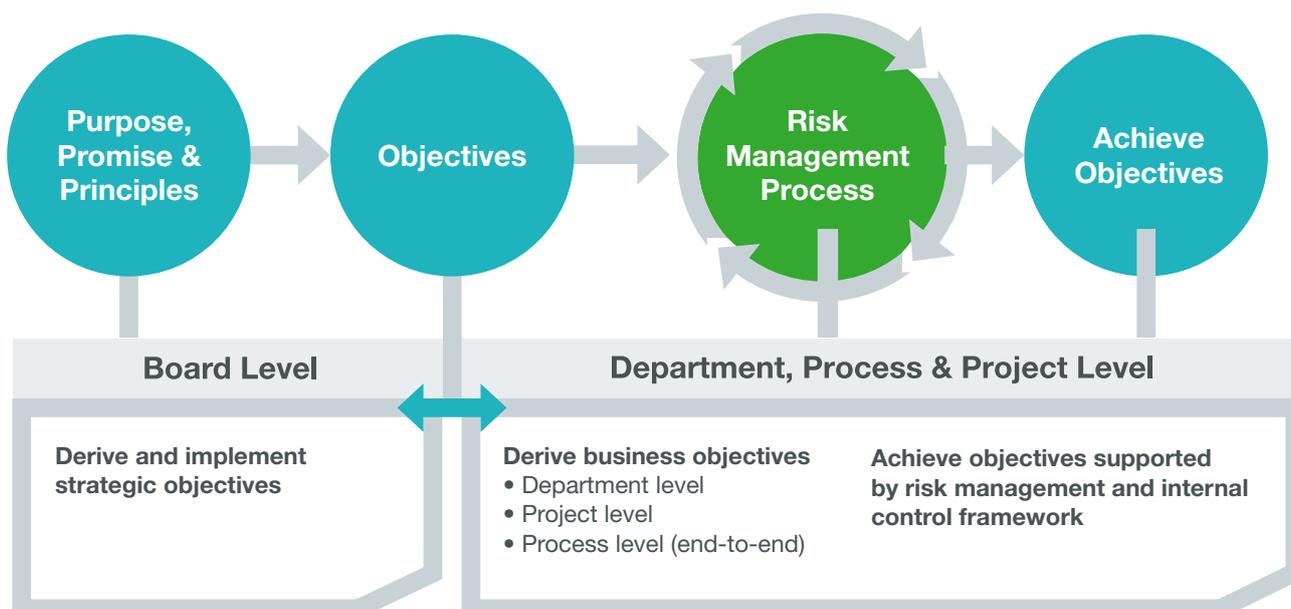
- Identify events, assess the risk, formulate risk responses, inform and communicate, implement control activities and continuous monitoring;
- Establish and maintain a uniform risk management framework;
- Provide the required tools, framework and guidelines for risk based decision making;
- Transparent and uniform reporting based on the ISO and COSO framework.

The risk framework at TenneT is structured into:

- Strategic Risk Management (SRM);
- Operational Risk Management (ORM);
- Project Risk Management (PRM);
- Risk and Portfolio management;
- Internal Control and Process Risk Management.

TenneT's 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 such as the Dutch Corporate Governance Code.

Risk management and internal control



Risk appetite

The amount of risk TenneT is willing to seek or accept in pursuit of its long term objectives.

The Risk Appetite Statement 2022 sets the guidance and willingness for the activities conducted by TenneT in pursuit of its strategic objectives. The Management Board together with the Senior Leadership Team reviews the Risk Appetite Statement annually to ensure that TenneT maintains a balance between risk and reward, relative to potential opportunities. In terms of the amount of risk that TenneT is willing to seek or accept, a differentiation is made between low risk appetite to high risk appetite.

High Risk Appetite:

Areas in which TenneT has a preference for disciplined risk-taking because we have determined the potential upside benefits outweigh the potential disadvantages.

Medium Risk Appetite:

Areas in which TenneT must constantly strike a balance between potential upside benefits and potential downside aspects of a given decision.

Low Risk Appetite:

Areas in which TenneT avoids risks, or acts to minimise or eliminate the likelihood that the risk will occur, because we have determined the potential downside aspects are intolerable. These are areas in which we typically seek to maintain a very strong control environment.

In the sections below we depict the results which places each risk area on a risk-appetite scale that ranges from “low” to “medium” to “high”:

Risk appetite

Risk area	Description	Rationale	
High Risk Appetite			
Secure Supply Tomorrow	Planning and building a future-proof energy system today that provides security of supply tomorrow (e.g. Target Grid, 2GW Program, hydrogen solution) while supporting a reduction in CO ₂ and SF ₆ emissions.	We want to stimulate the market by entering into innovative partnerships and will apply cutting-edge technology to develop adequate responses to some of the most vexing challenges of the energy transition, as well as the Climate Agreement. We accept that some approaches could fail to fulfil on their promise.	
Natural Disasters	Asset protection beyond what is financially insured against natural disasters such as flooding, cyclones, wildfire, extreme heat and earthquakes.	We continue to assess the impact of natural disasters on our grid, and accept that unforeseen events impacting our grid, today or in 30 years from now, can arise that we have not forecasted or catered for.	

Risk area	Description	Rationale	
Medium Risk Appetite			
Asset Security	Ensuring the protection of our assets against physical threats, such as attacks on sub-sea cables, onshore connections, substations, pylons or theft of valuable materials (e.g. copper).	We continually assess best practices to control the risk of protecting our assets from theft and intruders while recognising that a 100% protection is not possible. Not all measures might always be as effective as anticipated and not all expected costs justify the level of protection needed.	
Biodiversity	Protect the landscape and promote biodiversity around our substations, onshore connections and offshore projects.	We will continue to improve our projects to limit impact on nature and to improve the quality of animal life who were affected by construction or are affected by operating our assets. We recognise that sometimes decisions need to be made, in favour of building the grid, that negatively affect biodiversity.	
Procurement & Logistics	To have all required materials, supplies and services available on time and in asked quality.	We will make reasonable efforts to invest in supplier relationships and to secure critical supplies and services on time and in agreed quality for large projects while balancing supply chain constraints due to overall tight market conditions.	
Staffing	Growing number of employees (internal and contractors) before 2026 to achieve our future projects.	We will continually assess best practices in the industry for attracting, retaining and developing talent, including seeking flexibilities for hiring and compensating staff, while recognising that growing too rapidly could inhibit the organisations agility and responsiveness.	
Reputation and Media	To maintain public, political and stakeholder trust in order to achieve TenneT's objectives and responsibilities.	We will balance traditional and social media to promote and amplify the goals and results of TenneT. However, we must recognise the inherent risk of communications taken out of context intendedly or unintendedly or not adhering to the same voice and message towards our external partners.	
Safeguard our Financial Health	To maintain our credit ratings and have a sustainable balance between equity and debt.	We use a variety of processes and controls to continuously monitor and manage project capital expenditures, reporting, and the delivery of ancillary services, recognising that raising more debt is a quick way to finance our large projects, but it can negatively impact our credit ratings. We address OPEX growth before it leads to inefficiencies.	
Low Risk Appetite			
Operational Safety	Operational or constructional hazards resulting into one or multiple injuries or fatalities.	We endeavour to prevent unsafe situations that could endanger others, including our employees, contractors or the local community. We act on the basis of the highest safety standards in our sector.	
Ethics, Compliance & Human Rights	Working with business partners who do not share the same ethics and compliance principles or are situated in countries with lower human right standards.	We adopt a cautious stance for compliance by promoting and enforcing compliance with all laws, procedures and internal standards. At times we assume a degree of calculated risk of working with (sub)contractors in countries with lower human right standards that are essential to support our large projects.	
Secure Supply Today	To ensure that demand and supply of electricity – from renewable and traditional sources - are balanced.	We continue to ensure the security of supply of electricity transport, and connection of new customers, always taking into account the limited availability of interconnected electricity in Europe, congestion management or the planning complexity of dispatching.	
IT Technology	Events or circumstances that could potentially improve or compromise the processing, stability, capacity, performance or resilience.	We will act to minimise any weaknesses that could disrupt business operations, affect productivity, heighten the risk of fraud or threaten the security of information. We will work to avoid unplanned downtime that could result in lost productivity or costs to recover data.	
Cyber Security	Resilience against cyber threats or malware infestations affecting (partial) loss of control or power outages.	We have adopted a cautious approach to cyber risk. We reduce risk as much as possible by proactively and continuously mitigating malware and other intrusions, preventing unauthorised disclosure of sensitive data, and mitigating vulnerabilities in our security protocols, while recognising that attacks occur daily.	

Key risks and opportunities

To provide a single structured risk overview of all the risks and opportunities identified by TenneT, three risk tables have been introduced. A strategic risk table based on the four strategic pillars another on regulatory risks and lastly the climate related risks. Please note that the risks mentioned in these tables are also presented earlier in the performance section.

Strategic pillar	Risks	Mitigating measures
 <p>Secure supply today and tomorrow</p>	<ul style="list-style-type: none"> • The nitrogen emission ruling by the Council of State in the Netherlands could significantly delay in short term 25 projects (planning and operating) by 1 to 2 years and midterm affecting 100 projects with a delay between 6 to 12 months. The on average 10 year licensing and permitting process required to get approval to start construction, reduces TenneT's ability to act in a timely manner on our investment plans and promises. • Not able to connect customers to our grid on time due to unavailability of sustainable grid capacity. • Major suppliers are unable to deliver critical supplies (services and materials) to schedule (or at all) as they experience financial difficulties, insolvency or capacity constraints. • Our older assets require more maintenance work and present a growing logistical challenge and cost. • The inflow of renewable energy requires congestion management to stabilise the grid resulting in higher cost for society due to the redispatch costs. • Breach of security, attack or malware infestation potentially intensified due to the armed conflict on European soil. • Managing a growing portfolio of large projects – due to growth of onshore and offshore projects • The potential usage of new technologies in our assets could cause unforeseen malfunctions and could require more focus on maintenance. 	<ul style="list-style-type: none"> • Align with stakeholders and local communities first about their area investment plans and legislation such that TenneT can plan long-term investments accordingly. • Action plan how to approach the increasing problem of customer connection demand in relation to grid capacity. • Investment in more efficient grid use e.g. increasing transport capacity via dynamic line rating under windy conditions. • Contract more redispatch capacity in neighboring countries. • Periodical training system operations how to balance the grid under unlikely but high impact scenarios. • Accelerate certification of new suppliers (e.g. in India); risk diversification of supplier specific country risk and dependency. • Simplifying organisational and decision-making processes to increase efficiency and flexibility in our maintenance programme. • Continuation of effective monitoring and action-taking against physical or cyber security attacks, together with our strategic partners. • Usage of more project standardisations e.g. 2GW Program.
Opportunities		
<ul style="list-style-type: none"> • Growing political support to reduce permitting time enabling TenneT to build the required grid on time • New technologies are becoming available to help TenneT to manage political expectations and to deliver on its climate targets such as SF₆ gas, carbon emission and oil leakage. • Circularity of resources becomes more viable to reduce our footprint on for instance the usage of virgin copper. 		

 <p>Drive the energy transition</p>	<p>Risks</p> <ul style="list-style-type: none"> • Our strategic plans are complicated due to an increase of the national and European political ambition to become independent of Russian gas and early delivery on 2030 climate targets. • Limited space is available to build and expand our grid. • A lack of societal acceptance of the energy transition could lead to an inability of realising our ambitions. • Economic developments and high energy costs in Europe could influence the acceptance of costs associated with the energy transition. 	<p>Mitigating measures</p> <ul style="list-style-type: none"> • We are actively working with our contractors to make progress towards climate, circularity and nature ambitions. • We aim to use an environmental cost indicator (ECI) for evaluation purposes, based on the methodology of a Life Cycle Assessment (LCA).
<p>Opportunities</p> <ul style="list-style-type: none"> • New technologies and European collaboration to foster cross-border solutions, multi-hubs, sector coupling, integrated decarbonisation and the construction of the North Sea Wind Power Hub 		
 <p>Energise our people and organisation</p>	<p>Risks</p> <ul style="list-style-type: none"> • Not adhering to preventative or risk mitigating health and safety processes resulting in multiple severe incidents or fatalities. • TenneT faces ongoing difficulties to hire required resources for current / future operations due to tight labor conditions as well as internal turnover of staff and contractor personnel. • We face a delicate balance, between growing responsibly and sustainably in a way that allows us to stay agile and productive. 	<p>Mitigating measures</p> <ul style="list-style-type: none"> • Training is intensified to commit all stakeholders, making no difference between internal and contractors, to adhere to all safety regulations whether working at a construction site or at the office. • Safety inclusion in tendering and supplier performance management. • Implement various initiatives such as bias-trainings, publication of vacancies in other languages or starting international learning programs.
<p>Opportunities</p> <ul style="list-style-type: none"> • Boosting our execution power through finding better ways of working together in a performance-oriented culture. 		
 <p>Safeguard our financial health</p>	<p>Risks</p> <ul style="list-style-type: none"> • Lower regulatory rates of return on capital could diminish TenneT's attractiveness for investors. • Dependency on the regulatory framework, political commitments and society's growing concern about the cost of energy increase the pressure on TenneT's reimbursements. • Increasing OPEX electricity costs to balance the grid creates pressure on our reported financial result. • Exposure to credit risks or writeoffs if one or more of our partners get into financial trouble due to the expected economic recession in 2023. 	<p>Mitigating measures</p> <ul style="list-style-type: none"> • The revenue cap is partially mitigated by an additional income stream on top of the revenue cap for specific investments. • Application of active cost control and to strive for an efficient operation of our business as far as reasonably possible in order to avoid adverse effects from efficiency assessments of our regulators. • Performance of regular credit checks of significant partners, if needed additional due diligence. • Stress testing of hypothetical worst case scenarios and to address any potential high risk following from the analysis.
<p>Opportunities</p> <ul style="list-style-type: none"> • Investments in green businesses and economies are increasingly favoured by large investors and banks (e.g. institutional). 		

	Regulatory risk	Risk-mitigating actions
<p>General</p> 	<ul style="list-style-type: none"> • Inability to meet increasing efficiency targets over time as imposed by incentive regulation, especially taking into account a strongly growing company and the need for significant investments in grid expansion, maintenance, operation as well as innovation. • TenneT is unable to achieve a reasonable return on its invested capital as well as the full remuneration of operational costs as the regulated return continues to decline due to the low interest environment, the disallowance or only partial recognition of certain operational costs and stricter regulatory incentives. 	<ul style="list-style-type: none"> • TenneT performs regular reviews of its processes and organisational structure, introduced lean management, carries out continuous improvement activities and automates its IT-related processes. TenneT also prepares make-or-buy decisions in its investment process to optimise value for money to society and conducts strategic dialogues with regulators (ACM, ACER), policymakers and industry partners/suppliers to co-shape its future regulatory framework. • TenneT's strategy is to seek mutually acceptable results with regulatory stakeholders. However, if needed to protect pivotal strategic positions on solid legal grounds, legal action may be taken.
<p>Europe</p> 	<ul style="list-style-type: none"> • The 'Clean Energy Package' (CEP) entered into force. It requires amongst others that TSOs provide 70% of the total cross-border transmission capacity to the market, an amount difficult to achieve without extensive and costly redispatch activities. • The Dutch Ministry of Economic Affairs has issued an action plan to gradually achieve the 70% target by 1.1.2026, which also contains derogations for TenneT. • Extreme power prices and increased redispatch volumes result in a significant increase of grid fees. 	<ul style="list-style-type: none"> • TenneT monitors compliance against the action plan, in particular also as to the conditions of the derogation. TenneT reports on issues to the ACM and the Ministry of Economic Affairs, if any. • A price cap is implemented on the energy bill (via suppliers). The price cap also covers the higher costs for grid operators as a result of the high costs for ancillary services.
<p>The Netherlands</p> 	<ul style="list-style-type: none"> • In accordance with ACMs method decision for the period 2022-2026 the risk free rate is ex post settled. This ex post settlement shields TenneT from the current interest rate increase in the market as TenneT's revenues are adjusted to reflect the current conditions on the financial markets. TenneT is however still exposed to weakening cash flows when the interest rates decline. Consequently TenneT advocated that the methodology contains a floor for the risk-free rate. • According to the decision by the ACM, TenneT's cost efficiency level will decline from 97.9% in 2021 to 89.1% in 2025, impacting the next regulatory period with decreasing revenue. 	<ul style="list-style-type: none"> • TenneT is appealing against the efficiency determination by the ACM and supports the appeal of Netbeheer Nederland regarding the determination on the WACC.

Climate related risks

Risks	How might this affect TenneT?	Risk mitigating actions
<ul style="list-style-type: none"> • Transition risks • Policy and legal risks  	<ul style="list-style-type: none"> • Policy and legal risks are related to our regulatory framework. Choices we make that can help society and us as a company to transition to a climate-neutral economy are subject to discussion with our regulator. Our regulatory framework is updated once every 5 years and this might pose a risk that if ambitions from the government in the areas we serve move faster than the spirit of the regulatory framework, this might be a constraining factor to drive the energy transition. 	<ul style="list-style-type: none"> • We mitigate this by lobbying on national and European level, run pilot projects and present business cases and focus on those topics that promise the highest benefit for society, which are integration of power and hydrogen as well as flexibility and grid utilisation together with partners.
<ul style="list-style-type: none"> • Technology risk 	<ul style="list-style-type: none"> • A risk of stranded assets might occur in case a new technology is developed if for instance the new technology is unable to communicate with the old technology. Or if the technology used by TenneT is not able to connect or communicate with the technology used by other TSOs. 	<ul style="list-style-type: none"> • Mitigating actions include challenging the necessity of each investment and embrace other solutions, if those promise more societal value and actively work and invest in new technology as part of our strategy. Next to this, our approach regarding innovation aims to focus on the most important areas and implementing new technology as fast as possible, which reduces this risk.
<ul style="list-style-type: none"> • Market risk 	<ul style="list-style-type: none"> • Our market risks relate to dealing with the higher infeed of renewable energy sources and impacting the way we balance our grid and market prices. Renewable energy sources are more volatile and cannot easily be increased in case of a higher demand. Differences in market prices can lead to too high requests for energy at one location, where not all energy can be transmitted to the users. In such situations additional measures are required to balance the grid, such as redispatch. 	<ul style="list-style-type: none"> • TenneT plans and builds interconnectors within Europe and we investigate the grid integration of green hydrogen and power grids as well as improving the quality of data to predict power production and consumption.
<ul style="list-style-type: none"> • Reputation risk 	<ul style="list-style-type: none"> • A reputation risk could occur when we are unable to deliver on our strategic goal to drive the energy transition. Connected to this are the increasing ambitions of the government to meet these requirements. When realising our assets, we also have a reputational risk if there is a growing resistance from local communities and governments, if we do not engage with our stakeholders properly ("not in my backyard"). Furthermore the overall cost of the energy transition is also a risk from a reputational perspective (affordability). 	<ul style="list-style-type: none"> • To mitigate this risk we aim to communicate in an open and transparent fashion. Next to this, we invite stakeholders in the planning and approval process of projects to voice their opinion which we consider in, for instance, the final route of a certain project. We also aim to balance affordability, sustainability and security of supply in all our investment decisions. Further mitigation takes place through the usage of professional planning, project management and costs forecasting.
<ul style="list-style-type: none"> • Physical risks • Acute  	<ul style="list-style-type: none"> • Acute risks are related to for instance extreme weather conditions that could impact our assets and supply chain. 	<ul style="list-style-type: none"> • Acute weather conditions are mitigated during the design, construction and maintenance of our assets, such as the choice of location and the choice of materials. Regarding our supply chain, monitoring of suppliers and diversification are mitigating factors.
<ul style="list-style-type: none"> • Chronic 	<ul style="list-style-type: none"> • Chronic physical risks can relate to rising sea and ground water levels for instance, where our assets might be at a risk due to this. 	<ul style="list-style-type: none"> • We monitor developments to gain more experience and insights related to the scenarios and effects. Examples include projects related to assets such as our Krimpen aan de IJssel substation and one of our pylons, which we both have elevated. TenneT insures all substations and buildings during construction and operation against risks from natural catastrophes. Pylons and overhead-lines are not insured.

Climate related opportunities

Opportunities	How might this affect TenneT?
<ul style="list-style-type: none"> • Resource efficiency 	<ul style="list-style-type: none"> • Increased decentralised power production and storage including self-balancing micro grids as well as electrolyzers if they are correctly located can relieve high-voltage grids. Furthermore, DC-interconnectors enhance the transmission of power of very long distances and connect renewable power production and demands in different countries. • Solutions related to flexibility help us to make smarter use of our grid. This might have a positive effect as this could lead to less grid expansion and therefore help us reduce the amounts of resources required to secure supply today and tomorrow.
<ul style="list-style-type: none"> • Energy source 	<ul style="list-style-type: none"> • TenneT is a leading investor in the energy transition and so we have been able to gain a vast amount of experience connecting renewable energy sources, such as offshore wind, to our grid. This experience helps us to further drive the energy transition together with partners and fulfil the future investment portfolio.
<ul style="list-style-type: none"> • Products and Services 	<ul style="list-style-type: none"> • Our project portfolio has significantly changed in order to meet national and European climate goals. Key projects are connecting offshore wind energy to our grid or to ensure that our onshore grid is prepared for a new energy future. The gathering and analysis of energy data may lead to new products and services provided by TSOs, such as Equigy.
<ul style="list-style-type: none"> • Markets 	<ul style="list-style-type: none"> • Strategies and objectives of financial institutes and banks provide opportunities for TenneT to attract sustainable financing at favourable terms and conditions by issuing green finance products to finance and refinance our investments in green infrastructure projects.
<ul style="list-style-type: none"> • Resilience 	<ul style="list-style-type: none"> • Trends in the society, like the electrification of mobility, result in higher demand on a stable grid and power supply. To ensure resilience, integration of power and gas grids is a vital alternative. Digitalisation using technologies like automatisaton, robotics and block-chain will help to optimise grid utilisation while safeguarding a reliable supply of electricity.

Consolidated financial statements

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Financial statements

Consolidated statement of financial position

For the year ended 31 December (EUR million)

Assets	Notes	2022	2021
Non-current assets			
Tangible fixed assets	8	9,054	7,984
Right-of-use assets	9	105	118
Intangible assets	10	201	172
Investments in joint ventures and associates	12	3	2
Deferred tax assets	7	433	120
Other financial assets	13	38	55
Total non-current assets		9,834	8,451
Current assets			
Inventories	14	9	4
Account- and other receivables	15	434	368
Cash and cash equivalents	16	551	281
Total current assets		994	653
Total assets		10,828	9,104

For the year ended 31 December (EUR million)

Equity and liabilities	Notes	2022	2021
Total equity	17	3,568	3,092
Non-current liabilities			
Borrowings	18	5,221	4,356
Contract liabilities	19	452	374
Provisions	20	298	326
Lease liabilities	9	94	106
Total non-current liabilities		6,065	5,162
Current liabilities			
Contract liabilities	19	15	-
Provisions	20	58	27
Other financial liabilities	22	550	281
Lease liabilities	9	13	14
Account- and other payables	21	559	528
Total current liabilities		1,195	850
Total equity and liabilities		10,828	9,104

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	Unappropriated result	Total equity
At 1 January 2021		100	1,790	1,403	135	3,428
Total comprehensive income		-	-	-	-233	-233
Total dividend paid to shareholder	17	-	-	-103	-	-103
Appropriation remaining prior year result		-	-	135	-135	-
At 31 December 2021		100	1,790	1,435	-233	3,092
Total comprehensive income		-	-	-	-704	-704
Total dividend paid to shareholder	17	-	-	-50	-	-50
Capital contribution	17	-	1,230	-	-	1,230
Appropriation remaining prior year result		-	-	-233	233	-
At 31 December 2022		100	3,020	1,152	-704	3,568

Consolidated statement of income and comprehensive income

For the year ended 31 December (EUR million)

	Notes	2022	2021
Revenue	3	1,896	1,342
Grid expenses	4	-2,190	-1,075
Personnel expenses	4	-127	-127
Depreciation and amortisation of assets	8,9,10	-322	-282
Other operating expenses	4	-153	-133
Other (gains)/losses		-6	5
Total operating expenses		-2,798	-1,612
Share in result of joint ventures and associates	12	1	1
Operating result		-901	-269
Finance income	5	39	1
Finance expenses	6	-87	-47
Finance result		-48	-46
Result before income tax		-949	-315
Income tax expense	7	245	82
Result for the year		-704	-233
Other comprehensive income (net of tax)		-	-
Total comprehensive income		-704	-233

Consolidated statement of cash flows

For the year ended 31 December (EUR million)

	Notes	2022		2021	
Operational activities					
Operating result			-901		-269
Depreciation, amortisation and impairment of assets	8, 9, 10	322		282	
Result on disposal of assets	8	6		-	
Share in profit of joint ventures and associates	12	1		1	
Increase/(decrease) in deferred income	19	91		51	
Movements in provisions and other (financial) liabilities and assets		8		-4	
			428		330
Working capital adjustments:					
(Increase)/decrease in account- and other receivables	15	-66		-105	
(Increase)/decrease in inventories	14	-5		-1	
Increase/(decrease) in account- and other payables	21	-47		-58	
Increase/(decrease) in current financial liabilities	22	270		197	
			152		33
Net cash flows from operating activities			-321		94
Investing activities					
Purchase of tangible and intangible fixed assets	8, 10	-1,404		-1,384	
Interest received	5	40		1	
Proceeds from repayment of financial assets	13	16		4	
Net cash flows used in investing activities			-1,348		-1,379
Financing activities					
Dividends paid to shareholder	17	-50		-103	
Proceeds from borrowings	18	2,250		1,656	
Repayments of borrowings	18	-1,385		-	
Capital contribution by shareholder	18	1,230		-	
Interest paid	6	-92		-58	
Payment of lease liabilities	9	-14		-14	
Net cash flows from financing activities			1,939		1,481
Net change in cash and cash equivalents			270		196
Cash and cash equivalents at 31 December	16	551		281	
Cash and cash equivalents at 1 January	16	281		85	
			270		196



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 2022. The notes to the consolidated financial statements are disclosed following more or less the sequence of the balance sheet and profit & loss. Accounting policies are indicated with ①, 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 recognise and measure 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 financial statements. A more detailed description of accounting policies and significant estimates related to specific reported amounts is presented in the respective notes. Only accounting policies which are deemed material are 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 primary users of these financial statements.

General

TenneT TSO B.V. ("The company" or "TenneT TSO" or "the Group") 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.. The registered office of TenneT TSO B.V. is located at Utrechtseweg 310, Arnhem, the Netherlands, with its statutory seat in Arnhem and a registration with the Dutch Commercial Register under number 09155985.

These consolidated financial statements for the year ended 31 December 2022 were prepared and authorised by our Management Board for issue on 6 March 2023. 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. These consolidated financial statements have been audited by Deloitte Accountants B.V.

Basis for preparation

These consolidated financial statements are prepared in accordance with International Financial Reporting Standards as adopted by the European Union (IFRS) and Part 9 of Book 2 of the Dutch Civil Code. The company financial statements for TenneT TSO B.V. are prepared in accordance with the provisions of Part 9 of Book 2 of the Dutch Civil Code.

These consolidated financial statements are prepared on a going concern basis. The going concern basis presumes that TenneT TSO 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, unless described otherwise in the accounting policy of a balance sheet position. They are presented in euros and all values are rounded to the nearest million (EUR 000,000), except when indicated otherwise.

Changes in EU-endorsed published IFRS standards and interpretations effective in 2022

Significant new and amended standards adopted that are effective for the current year

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

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

It is anticipated that any issued changes to IFRS standards that are not yet effective and adopted by TenneT will not have a significant impact.

Basis for consolidation

The consolidated financial statements incorporate the financial statements of TenneT TSO B.V. and its subsidiaries as at 31 December 2022. A list of the legal entities included in the consolidation is included in note 29. Subsidiaries are consolidated from the date of acquisition, constituting the date on which control is obtained and continue to be consolidated until the date when such control ceases. The financial statements of subsidiaries are prepared for the same reporting period as the parent company, using consistent accounting policies.

All intercompany balances, transactions, unrealised gains and losses resulting from intercompany transactions and dividends are eliminated in full 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 over 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 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 is recognised as goodwill.

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	8	Estimate of remaining useful life, identification of cash-generating units for fixed asset impairment testing
Right-of-use assets and lease liabilities	9	Estimate of discount rate and expected extension or accelerated termination date
Intangible assets	10	Estimate of recoverable amount and remaining useful life
Provision for environmental management and decommissioning	20	Estimate of removal costs, removal dates, discount rate and price increases in the period leading up to removal
Other provisions	20	Mainly relate to estimate of probability, realisation date and curtailed feed-in volumes and prices
Grid expenses payable	21	Amongst others estimate of electricity usage and energy prices

Functional currency

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

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 all of our revenue from our regulated operating activities in the Netherlands. Therefore, close collaboration with our regulator, the Autoriteit Consument & Markt (ACM), to obtain regulations and agreements that provide reasonable compensation for the risks we face is key to us. Our involvement in certain limited non-regulated activities (not material) are closely related and ancillary to our core tasks.

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. The segment performance is based on underlying financial information, where EBIT, investments and return on capital are the key metrics. The definition of EBIT equals operating result.

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 are required to be returned through future tariffs are recorded as an asset or liability, respectively. TenneT's Management Board believes that the presentation of underlying financial information provides additional relevant insight in the actual business, financial performance, and as such economic reality.

① 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 through recognition of regulatory deferral accounts. The key requirement for such recognition 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 certain investments were financed via auction receipts resulting from auctioning available electricity transmission capacity on cross-border interconnections.

(EUR million)	2022			2021		
	Investments	Assets	Liabilities	Investments	Assets	Liabilities
TSO Netherlands	1,527	12,328	7,697	1,550	9,651	6,384
Consolidated underlying information	1,527	12,328	7,697	1,550	9,651	6,384

(EUR million)	2022		2021	
	Assets	Liabilities	Assets	Liabilities
TSO Netherlands	10,828	7,260	9,104	6,012
Consolidated IFRS information	10,828	7,260	9,104	6,012

Below the reconciliation between underlying total net assets and liabilities and IFRS total net assets and liabilities is disclosed:

(EUR million)	2022	2021
Consolidated underlying information		
Assets	12,328	9,651
Liabilities	-7,697	-6,384
Total net assets and liabilities	4,631	3,267
Regulatory receivables and payables	-1,260	-54
Valuation difference tangible fixed assets	-173	-181
Tax impact	370	60
Total underlying impact	-1,063	-175
Consolidated IFRS information	3,568	3,092
Consolidated IFRS information		
Assets	10,828	9,104
Liabilities	-7,260	-6,012
Total net assets and liabilities	3,568	3,092

Investment amounts recognised under IFRS are equal to underlying investments.

For an analysis of underlying results please refer to the 'Safeguard sustainable financial performance and investor ratings' section of our Management Board report.

Regulatory deferral accounts: reconciliation to IFRS figures

The difference between the underlying financial information - as presented in the underlying financial reporting analysis- and IFRS reported figures is related to the recognition of regulated assets and liabilities, auctions receipts and the measurement of tangible fixed assets. 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 TenneT TSO 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 additional relevant insight to management for manage TenneT TSO's business.

These differences also result in different deferred tax balances in underlying financial information compared to IFRS reported figures. No other differences between underlying financial information and IFRS exist.

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

(EUR million)	Reconciliation IFRS to underlying figures					
	2022			2021		
	IFRS figures	Underlying items	Underlying figures	IFRS figures	Underlying items	Underlying figures
Connection and transmission services	896	1,563	2,459	801	703	1,504
Maintenance of the energy balance	456	-155	301	166	-75	91
Operation of energy exchanges	242	-240	2	164	-159	5
Offshore (balancing)	242	44	286	161	26	187
Revenue from related parties	33	-	33	29	1	30
Other	27	9	36	21	8	29
Total revenue	1,896	1,221	3,117	1,342	504	1,846
Grid expenses	-2,190	-	-2,190	-1,075	-	-1,075
Personnel expenses	-127	-	-127	-127	-	-127
Depreciation and amortisation of assets	-322	-8	-330	-282	-7	-289
Other operating expenses	-153	-1	-154	-133	-	-133
Other (gains)/losses	-6	-	-6	5	-	5
Total operating expenses	-2,798	-9	-2,807	-1,612	-7	-1,619
Share in profit of joint ventures and associates	1	1	2	1	-	1
Operating result	-901	1,213	312	-269	497	228
Finance income	39	-38	1	1	-	1
Finance expenses	-87	22	-65	-47	9	-38
Finance result	-48	-16	-64	-46	9	-37
Result before income tax	-949	1,197	248	-315	506	191
Income tax expense	245	-309	-64	82	-128	-46
Result for the year	-704	888	184	-233	378	145

Continuation >

< Continuation

(EUR million)	Reconciliation IFRS to underlying figures					
	2022			2021		
	IFRS figures	Underlying items	Underlying figures	IFRS figures	Underlying items	Underlying figures
Result attributable to:						
Equity holders of ordinary shares	-704	888	184	-233	378	145
Underlying items						
To be settled in tariffs		1,607			728	
Auction receipts		-240			-159	
Investment contributions		9			9	
Maintenance of the energy balance		-155			-74	
Revenue		1,221			504	

To be settled in tariffs

Revenue surpluses and deficits resulting from variances related to actual costs or transmission volumes (ex post) and estimates used to set tariffs (ex ante) are incorporated in the tariffs of subsequent years. In 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 related to these items have to be settled in future tariffs in coming years.

The underlying item "to be settled in tariffs" is part of the revenue stream "connection and transmission services" and equals EUR 1,607 million (2021: EUR 728 million).

Auction receipts & investment contributions

Auction receipts result from auctioning the available electricity transmission capacity on cross-border interconnections. These receipts are not at TenneT's free disposal. In accordance with Regulation (EU) 2019/943, auction receipts shall be used to fulfill the following priority objectives:

- guaranteeing the actual availability of the allocated capacity including firmness compensation; or
- maintaining or increasing cross-zonal capacities through optimisation of the usage of existing interconnectors by means of coordinated remedial actions, where applicable, or covering costs resulting from network investments that are relevant to reduce interconnector congestion.

When these priority objectives have been adequately fulfilled, auction receipts may be used as income to be taken into account by the regulatory authorities when approving the methodology for calculating network tariffs or fixing network tariffs, or both. In the Netherlands, TenneT agreed with its regulator (Autoriteit Consument en Markt) that investments in interconnectors are no longer financed through the auction receipts as of 2016. The current outstanding balance of auction receipts will be used in accordance with the aforementioned objectives. On 22 November 2022, the competence agreement of 2015 between TenneT and the ACM was dissolved. Investments in previous years 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.

The underlying item auction receipts is part of revenue stream "operations of energy exchanges" for an amount of EUR -240 million (2021: EUR -159 million). The underlying item investment contribution is part of, revenue stream "other" for an amount of EUR 9 million (2021: EUR 9 million).

Maintenance of the energy balance

As system manager of the high-voltage grid in the Netherlands, TenneT receives 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.

The underlying item maintenance of the energy balance is part of “revenue stream maintenance of the energy balance” for an amount of EUR -155 million (2021: EUR -74 million).

Depreciation and amortisation of assets

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

3 Revenue

(EUR million)	2022	2021
Connection and transmission services	896	802
Offshore revenues	242	160
Maintenance of the energy balance	456	166
Operation of energy exchanges	242	160
Revenue from related parties	33	31
Other	27	23
Total	1,896	1,342

Connection and transmission services

Revenue from connection and transmission services is regulated by ACM in the Netherlands. It includes revenue from services provided to DSOs and industrial clients (such as resolution of transmission restrictions, congestion management and reactive power management). Increase in the revenues is mainly explained by the increase of tariffs as a result of the increased asset base.

Offshore revenue

Total offshore revenue increased mainly due to the higher imputed return on equity and increasing “Net op Zee phase 1” offshore asset base. Increase in the revenues is explained by the increase in the asset base and the increase in the energy prices.

Maintenance of the energy balance

TenneT is 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 50 Hz 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 cash in- and outflows associated from maintaining this energy balance (e.g. imbalance settlements) fluctuate considerably and are refunded through regulated tariffs in subsequent years.

Revenue increased mainly due to higher energy prices which resulted in a higher price for imbalance settlement.

Operation of energy exchanges

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

Revenue increased mainly due to higher energy prices.

① Accounting policy

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 is 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 arise 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 ACM, a downward 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 under IFRS when a regulator permits increases to be made to future tariffs in respect of under-recovery.

Offshore revenue in the Netherlands is accounted for in accordance with the recognition and measurement principles of IAS 20. These revenues are only recognised when there is reasonable assurance that the Group will comply with the conditions attached to receiving this income and the income will be received.

4 Operating expenses

Grid expenses

(EUR million)	2022	2021
System services	928	334
Connection and transmission services	814	533
Maintenance of the energy balance	294	90
Other ancillary services	-3	-4
Subtotal ancillary services	2,033	953
Maintaining and operating transmission grids	157	122
Total	2,190	1,075

Due to the current market situation caused by the war in Ukraine energy expenses increased rapid and are very volatile. This leads to increasing system services due to higher costs related to feed-in management, transmission restrictions, grid losses and redispatch costs. This increase in costs is caused both by higher energy prices due to the market situation and more transmission restrictions. These developments also led to an increase in connection and transmission services. The increase in expenses for maintenance of the energy balance is mainly caused by volatilities in market production and demand. Higher insurance costs mainly caused the increase of cost of maintaining and operating transmission grids.

The higher grid expenses and project costs will be reimbursed through future tariffs, which will result in considerable higher grid tariffs in future years. Please refer to Note 2 for further details about difference between IFRS and Underlying financial information.

Personnel expenses

(EUR million)	2022	2021
Salaries	179	150
Social security contributions	20	17
Pension charges other plans	33	31
Other personnel expenses	20	32
Capitalised costs for (in)tangible fixed assets	-125	-103
Total	127	127

In 2022, the average workforce amounted to 2,196 FTEs (2021: 1,875 FTE's). Almost all employees work in the Netherlands.

For our personnel we have a multi-employer scheme at ABP Pension Fund (ABP) in the Netherlands. The pension contribution rate for 2022 was 21.53% of the pensionable salary. In 2023 we expect to contribute EUR 32 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 is a defined contribution scheme. Since the financial situation of the ABP pension plan at 31 December 2015 was inadequate from a regulatory perspective, 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 2022 is 118.6% (2021: 102.8%), 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 remuneration	Pension cost	Termination benefit	Total
2022	584	214	-	798
2021	522	119	216	857

The entire Management Board consists of statutory directors of TenneT TSO B.V. Remuneration paid to members of the Management Board in respect of supervisory directorships in affiliated entities accrues to the company. In addition to the remuneration presented in the table above, an incidental fixed remuneration of EUR 15 thousand was incurred for a former board member. The column 'Fixed remuneration' includes certain perquisites provided to statutory directors in 2022, such as life-cycle allowance, an employer contribution to the Dutch statutory health insurance and an one-off payment as part of the CLA agreement. The costs shown in this column are excluding the annual employer contributions to the Dutch social security. For 2022 these amount to EUR 28 thousand (2021: EUR 27 thousand).

Composition of the Management Board

TenneT TSO's Management Board consists of people with diverse experiences, skills and knowledge. TenneT TSO values this diversity and believes it contributes positively to the way situations are assessed and decisions are made.

Other operating expenses

(EUR million)	2022	2021
Accommodation and office expenses	49	38
Consultancy expenses	24	16
Hiring of temporary personnel	42	41
Travel and living expenses	8	4
Other expenses	30	34
Total	153	133

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

The company makes use of article 2:382a 3 of the Dutch Civil Code, which states that the company is exempt from disclosing audit fees when this has been disclosed in the group financial statements.

① Accounting policy

TenneT has energy purchase contracts for the forward purchase of energy or gas that are used to satisfy physical delivery requirements to customers or for the energy that the group uses itself. Substantially all our costs of purchasing electricity for supply to customers are recoverable at an amount equal to cost. The timing of recovery of these costs can vary between financial periods leading to an under- or over-recovery within any particular year that can lead to large fluctuations in the IFRS income statement. We follow approved policies to manage price and supply risks for our commodity activities.

TenneT's energy procurement risk management policy and delegations of authority govern its commodity trading activities for energy transactions. The purpose of this policy is to ensure we transact within pre-defined risk parameters and only in the physical and financial markets where we or our customers have a physical market requirement. In addition, state regulators require TenneT TSO to manage commodity risk and cost volatility prudently through diversified pricing strategies. We are required to file a plan outlining our energy procurement strategy to be approved by regulators. In certain cases, we might receive guidance with regard to specific hedging limits.

Energy purchase contracts for the forward purchase of electricity that are used to satisfy physical delivery requirements to customers, or for energy that TenneT TSO uses itself, meet the expected purchase or usage requirements of IFRS 9. They are, therefore, not recognised in the financial statements until they are realised. In note 27 of the consolidated financial statements commitments under such have been disclosed as "Grid-related commitments".

Operating expenses are expenses incurred during regular day-to-day business, such as system services, connection and transmission services, maintenance of energy balance and costs of maintaining and operating transmission grids. Operating expenses are recorded in the statement of income in the period they are incurred.

5 Finance income

(EUR million)	2022	2021
Other interest received	-39	-1
Total	-39	-1

In 2022 an amount of EUR 38 million was recognised regarding a settled court case.

6 Finance expenses

(EUR million)	2022	2021
Interest expenses on borrowings with shareholder (TenneT Holding B.V.)	92	58
Capitalised interest on assets under construction	-12	-13
Interest on provisions	6	-
Interest on lease liability	1	1
Other finance expenses	-	1
Total	87	47

For the effective rate of interest on assets under construction and interest on long-term loans, reference is made to note 8 respectively 18.

In 2022 the borrowings from the shareholder increased from EUR 4.4 billion to EUR 5.2 billion and the interest rate increased as well. Herewith, we apply an active financing strategy to create and maintain an optimal capital structure.

① Accounting policy

Finance expenses comprise mainly interest expenses, such as interest on borrowings, capitalised interest on assets under construction and interest on lease liabilities. Finance expenses are recorded in the statement of income using the effective interest rate method.

7 Corporate income tax

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

The key components of corporate income tax expense are:

Consolidated income statement (EUR million)	2022	2021
Current income tax charge	69	60
Deferred tax	-314	-142
Corporate income tax expense reported in the statement of income	-245	-82

The deferred tax related to temporary differences is related to tariffs to be settled and regular depreciation and amortisation.

In the Netherlands, a statutory corporate income tax rate of 25.8% was applied. Reconciliation between corporate tax expense and the accounting profit multiplied by the statutory corporate income tax rate of 25.8% is as follows:

(EUR million)	2022	2021
Result before corporate income tax	-949	-317
Statutory corporate income tax rate of 25.8% (2021: 25%)	-245	-78
Effect future tax rate change	-	-4
At the effective corporate income tax rate of 25.8% (2021: 26%)	-245	-82

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

(EUR million)	Statement of financial position		Statement of income	
	2022	2021	2022	2021
Auction receipts	-7	-14	-6	-67
Investment contributions	-64	-66	-2	-
Tariffs to be settled	387	86	-303	-61
Depreciation for tax purposes	109	109	-	-14
Provisions	8	5	-3	-
Net deferred tax assets/(liabilities)	433	120		
Deferred tax expense/(income)			-314	-142

Movement of the deferred tax position is set out below.

(EUR million)	2022	2021
At 1 January	120	-23
Tax expense during the period recognised in statement of income	313	143
At 31 December	433	120

① Accounting policy

The tax charge for the period is recognised in the statement of income or the statement of comprehensive income, 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 where we 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 assessment is performed 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. There are no unrecognised carry forward losses per 31 December 2022 (2021: nil).

Deferred tax assets and liabilities are recognised on a gross basis 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.

8 Tangible fixed assets

(EUR million)	High-voltage substations	High-voltage connections	Other assets	Assets under construction	Total
Cost					
At 1 January 2021	3,240	4,018	336	1,686	9,280
Additions	-	152	-	1,351	1,503
Transfers	178	136	4	-317	1
Disposals	-	-	-	-4	-4
At 31 December 2021	3,418	4,306	340	2,716	10,780
Additions	102	44	-	1,323	1,469
Transfers	636	134	26	-796	-
Changes in estimations	-52	-38	-	-22	-112
Impairment	-	-	-	-6	-6
Disposals	-1	-	-	-	-1
At 31 December 2022	4,103	4,446	366	3,215	12,130
Depreciation and impairment					
At 1 January 2021	1,128	1,242	177	-	2,547
Depreciation for the year	101	127	21	-	249
At 31 December 2021	1,229	1,369	198	-	2,796
Depreciation for the year	118	142	20	-	280
Disposals	-	-	-	-	-
At 31 December 2022	1,347	1,511	218	-	3,076
Net book value:					
At 1 January 2021	2,112	2,776	159	1,686	6,733
At 31 December 2021	2,189	2,937	142	2,716	7,984
At 31 December 2022	2,756	2,935	148	3,215	9,054

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

In 2022 the discount rate used for the decommissioning provision was between 2.59% and 2.94% (2021: 0.165% and 0.318%) for offshore wind farms (OWF) connections (see note 20). The discount rate has been adjusted in 2022 to reflect current market assessments of the time value of money and the risks specific to the liability. 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 2022 is disclosed in note 6. The effective interest rate used to determine the amount of borrowing costs capitalised was 1.34% (2021: 2.0%).

Annual impairment trigger analyses on tangible assets, and where applicable testing for impairment, is done at the individual asset level or on TenneT TSO level.

① Accounting policy

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 if and to extend such borrowing costs are directly compensated in the year of construction.

🔑 Key estimates and assumptions

To calculate depreciation amounts, the following useful lives of various asset categories were 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.

9 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 2021	73	43	116
Additions	10	4	14
Depreciation	-8	-4	-12
At 31 December 2021	75	43	118
Additions	2	3	5
Remeasurement	3	-	3
Depreciation	-9	-4	-13
Disposals	-	-11	-11
Disposals accumulated depreciation	-	3	3
At 31 December 2022	71	34	105

Leased Land & Buildings

Land is mainly leased to set up pylons for electricity transmission cables and for constructed substations. These contracts run for a period of 18-142 years. Buildings are leased mainly as office space and for storage space. These contracts run for a period of 1-15 years.

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

Lease payments were 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 3 and 30 years.

For qualifying employees TenneT TSO leased cars with a lease term between 2 and 7 years.

TenneT TSO does not purchase or guarantee the value of leased cars or telecom assets.

TenneT TSO had 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 TSO had no 'sub lease' contracts in 2022 and 2021 and therefore no income from subleasing right-of-use assets.

TenneT TSO 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.

Lease payments are in substance fixed, only some of the lease contracts had pre-determined lease payment changes.

Short-term and low value leases

TenneT TSO leased certain other assets with terms of 1-3 years. TenneT TSO considers these assets to be of low-value or short-term in nature and therefore no right of use assets and lease liabilities were recognised for these leases. Total of short-term lease expenses for more than one month and low value assets lease expenses amounted to nil (2021: nil).

Lease liability

(EUR million)	2022			2021		
	Current	Non-current	Total	Current	Non-current	Total
Lease liability Land & buildings	9	63	72	8	67	75
Lease liability other leases	4	31	35	6	39	45
Total	13	94	107	14	106	120

(EUR million)	Lease liability Land & buildings	Lease liability other leases	Total
At 1 January 2021	73	44	117
Addition	10	5	15
Interest	1	1	2
Repayments	-9	-5	-14
At 31 December 2021	75	45	120
Addition	2	3	5
Interest	1	1	2
Repayments	-9	-6	-15
Reversal of unused amounts	-	-8	-8
Remeasurements	3	-	3
At 31 December 2022	72	35	107

The total cash outflow (including low value items and short-term leases) in 2022 was EUR 15 million (2021: EUR 14 million). TenneT TSO did not commit to any future cash outflow of lease contracts..

(EUR million)	2022	2021
Depreciation expense of right-of-use assets	-13	-12
Interest expense on lease liabilities	-2	-2
Total amount recognised in profit and loss	-15	-14

The undiscounted maturity analysis of lease liabilities is disclosed in note 24. Below the discounted maturity of the lease liability:

(EUR million)	2022	2021
<1 month	2	2
1 to 3 months	1	1
3 to 12 months	41	11
1 to 5 years	10	40
More than 5 years	53	66
Total discounted maturity	107	120

① Accounting policy

At inception of a contract, TenneT TSO 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 TSO 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 earlier of the end of the useful life of the right-of-use asset or the end of the lease term, 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, the interest rate implicit in the lease is used for discounting (e.g. car leases). Otherwise the used discount rates are shown below:

	2022	2021
Under 5 year	0.0%-0.5%	0.0%
5-10 years	0.1%-1.6%	0.0%
10-15 years	0.4%-2.2%	0.3%
15-25 years	0.7%-2.5%	0.6%
Above 25 years	1.1%-2.8%	0.9%

After initial recognition, the lease liability is measured at the present value of the remaining lease payments 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 TSO 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 as profit or loss.

Short-term leases and leases of low value

TenneT TSO 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 TSO recognises the lease payments associated with these leases as an expense on a straight-line basis over the lease term or another systematic basis if that basis is more representative of the pattern of the lessee's benefit. Furthermore, we have chosen not to recognise the lease of intangible assets.

10 Intangible assets

(EUR million)	Goodwill	Software	Customer contracts	Other intangible assets	Intangible assets under construction	Total
Cost						
At 1 January 2021	3	245	64	26	58	396
Additions	-	-	-	-	49	49
Transfers	-	51	-	-	-51	-
At 31 December 2021	3	296	64	26	56	445
Additions	-	-	-	-	58	58
Transfers	-	46	-	-	-46	-
At 31 December 2022	3	342	64	26	68	503
Amortisation and impairment						
At 1 January 2021	-	188	58	6	-	252
Amortisation for the year	-	16	5	-	-	21
At 31 December 2021	-	204	63	6	-	273
Amortisation for the year	-	28	1	-	-	29
At 31 December 2022	-	232	64	6	-	302
Net book value:						
At 1 January 2021	3	57	6	20	58	144
At 31 December 2021	3	92	1	20	56	172
At 31 December 2022	3	110	-	20	68	201

During 2022 EUR 46 million (2021: EUR 39 million) of software was internally developed.

① Accounting policy

Intangible assets are measured at acquisition cost on initial recognition. The cost of intangible assets acquired in a business combination is recognised at 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 (i) of the consideration transferred over (ii) 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. If 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	3-12
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 within the ranges outlined 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 CGU level.

Impairment testing of goodwill

For the purpose of impairment testing, goodwill acquired in a business combination is allocated to the CGU (our operating segment) expected to benefit from the synergies of the combination. The CGU 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 our assessment of current market conditions in respect 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 for the CGU to which the individual assets are allocated. The projections take into account 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 CGU's cash flow generating potential.

11 Business combinations

Mergers and acquisitions

As of 31 December 2022 CertiQ B.V. merged with Vertogas B.V. into VertiCer B.V. Vertogas B.V. is the issued body for green gas certificates and was fully owned by Gasunie N.V. After this merger, both Gasunie and TenneT hold 50% of the shares in VertiCer B.V.

Accounting policy

Business combinations are accounted for using the acquisition method. The cost of an acquisition is measured as the aggregate of 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 decide 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 in connection with an acquisition and included in other expenses (see note 4).

12 Investments in joint ventures and associates

Joint ventures and associates

TenneT TSO has, directly or indirectly, 50% equity stakes in Reddyn B.V. and Tenzs B.V., and a 20% equity stake in Equigy 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. For the investment in Equigy B.V. joint control is exercised, despite unequal equity stakes. Therefore this investment is classified as joint venture as of 2021. As of 31 December 2022 TenneT has a 50% participation in VertiCer B.V. (see note 11).

These investments are classified as joint ventures. None of these joint ventures are considered as material. TenneT's share in result (which is equal to other and total comprehensive income) of these immaterial joint ventures amounted to EUR 3 million in 2022 (2021: EUR 1 million).

At 31 December 2022 TenneT TSO B.V. holds three immaterial investments in associates Energie Data Services Nederland B.V. (EDSN), Beheer Afsprakenstelsel B.V. (BAS) and TSCNET Services GmbH (TSC). TenneT's share in result (which is equal to other and total comprehensive income) of these immaterial associates amounted to nil in 2022 (2021: nil).

In 2022 we received EUR nil dividend from our associates and joint ventures (2021: nil).

① Accounting policy

A joint venture is an arrangement whereby the parties in the arrangement have joint control over the net assets of the joint arrangement. A joint operation is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the assets and obligations for the liabilities of the 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 TSO'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 investments. Any change in other comprehensive income of these investments 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 any investment are eliminated to the extent of the interest in such investment. When an associate or joint venture distributes dividend to us in excess of our carrying amount, a liability is recognised if TenneT TSO:

- a. is obliged to refund the dividend;
- b. has incurred a legal or constructive obligation; or
- c. made payments on behalf of the associate.

In the absence of such obligations, the excess in net result for the period is recognised. When the associate or joint venture subsequently generates results, this is only recognised if and to the extent they exceed the excess cash distributions recognised in net result 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.

Upon 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 upon loss of significant influence and the fair value of the retained investment and proceeds from disposal is recognised in the statement of income.

13 Other financial assets

(EUR million)	2022	2021
Receivables from related parties	31	47
Other prepayments	7	8
Total	38	55

Stichting Doelgelden (hereafter: 'The Foundation') holds preference shares in TenneT Duitsland B.V recognised at amortised cost. TenneT Duitsland B.V. indirectly holds all shares in TenneT GmbH & Co KG, that holds a Germany Regulated activities of TenneT Holding B.V. 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. The call option with an exercise price of EUR 31 million entitles TenneT Holding B.V. to acquire the investment from 'The Foundation'. The put option has an exercise price of EUR 31 million 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 TenneT Holding B.V. The fair values of the options are nil for the call option and nil for the put option.

① Accounting policy

Please refer to note 26, accounting policies for financial instruments.

14 Inventory

Inventory was primarily composed of strategic stock. The allowance for inventory is EUR 4 million (2021: EUR 4 million). The fair value of inventory was not materially different from the carrying value.

① Accounting policy

Inventory is recognised 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 a sale.

15 Account- and other receivables

(EUR million)	2022	2021
Trade receivables	129	114
VAT receivable	31	55
Amounts to be invoiced	93	86
Amounts due from other related parties	41	14
Subsidies to be received	80	49
Prepaid energy costs	35	22
Other	25	28
Total	434	368

Trade receivables

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

(EUR million)	Total	Not past due	Past due		
			0-30 days	31-60 days	More than 60 days
2022	129	104	12	10	3
2021	114	96	18	-	-

Changes in the allowance for expected credit losses are as follows:

(EUR million)	2022	2021
At 1 January	18	11
Charge for the year	6	7
Utilised	-1	-
Unused amounts reversed	-	-
At 31 December	23	18

As at 31 December 2022, receivables with an initial value of EUR 1 million (2021: EUR 1 million) were fully provided for.

Other

A value of EUR 3 million is recognised as a receivable for more than one year.

① Accounting policy

Please refer to note 26, accounting policies for financial instruments.

16 Cash and cash equivalents

Cash and cash equivalents consisted of collateral securities, short-term bank deposits and cash at bank (excluding bank overdrafts) and can be broken down as follows:

(EUR million)	2022		2021	
	Not at free disposal	Total	Not at free disposal	Total
Collateral securities	550	550	281	281
Cash at bank	1	1	-	-
Total cash and cash equivalents used in cash flow statement	551	551	281	281

Cash at banks carry interest at floating rates based on daily bank deposit rates which may at times be negative.

① Accounting policy

In the consolidated statement of cash flows, cash and cash equivalents include cash at bank, deposits held at call with banks, other short-term highly liquid investments with remaining maturities of three months or less and are presented net of outstanding bank overdrafts. Securities are deposits on collaterals that serve as financial security for auction and energy exchange transactions. A matching debt is recognised to the party that deposited the funds as collateral. Securities are stated at fair value upon receipt and subsequently at amortised cost.

The Group presents its cash flows in the consolidated statement of cash flows using the indirect method. The Group has elected to classify interest received as cash flows from investing activities and interest paid (including interest on lease liabilities) as cash flows from financing activities.

17 Equity

Equity attributable to owners of the company

Paid-up and called-up capital

The Company's authorised share capital amounted to EUR 500 million (2021: EUR 500million), divided into one million shares of EUR 500 each. Of these shares, two hundred thousand shares have been issued and paid-up.

Retained earnings

Part of the retained earnings has been presented as legal reserve. For more details see note 40.

Share premium reserve

The share premium reserve consists of the capital contributions, made by the shareholder of ordinary shares, TenneT Holding B.V. Indirectly the Dutch State represented by the Ministry of Finance is the shareholder. The share premium reserve consists of the capital contributions, made by the shareholder of ordinary shares, the Dutch State represented by the Ministry of Finance. In the Dutch State budget 'miljoenennota' of September 2022, the Dutch State has reserved an amount up to EUR 5.11 billion for additional equity contributions for the period 2022-2025. A first tranche of EUR 1,230 million was received in 2022 and the capital contribution has been recorded in the share premium reserve.

Dividend distribution

In 2022 a common full-year dividend of EUR 50 million (EUR 50 per share) to our ordinary shareholder was distributed (2021: EUR 103 million). In agreement with TenneT Holding we have established a dividend policy with a pay-out of 35% of the underlying profit for the year.

18 Borrowings

(EUR million)	Effective interest rate	Maturity	Redemption schedule	2022	2021
Loan from shareholder (TenneT Holding B.V.)	2.10%	Dec-31	At maturity	5,221	4,356
Non-current interest-bearing loans				5,221	4,356

TenneT TSO B.V. is financed through TenneT Holding B.V. As per 31 December 2022 the principal amount of the finance facility between TenneT Holding B.V. and TenneT TSO B.V. amounted to EUR 5,221 million (2021: EUR 4,356 million); a maximum facility has not been agreed upon. The facility matures after 10 years and is automatically extended in September of every year for another year, unless agreed upon otherwise. The facility has no financial covenants. 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 2022 (2021: nil).

The fair value of the Loan from shareholder is EUR 4,374 million (2021: EUR 4,688 million). For more information about the fair value and applicable accounting policy, please refer to note 25 and 26, respectively.

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

(EUR million)	(Non) -current interest-bearing loans	Total
At 1 January 2021	2,700	2,700
Cash inflow from new borrowings	1,656	1,656
At 31 December 2021	4,356	4,356
Cash inflow from new borrowings	2,250	2,250
Cash outflow from redemptions	-1,385	-1,385
At 31 December 2022	5,221	5,221

① Accounting policy

Please refer to note 26, accounting policies for financial instruments.

19 Contract liabilities

(EUR million)	Investment contributions	Other	Total
At 1 January 2021	323	-	323
Addition	61	1	62
Amortisation	-11	-	-11
At 31 December 2021	373	1	374
Addition	104	-	104
Amortisation	-11	-	-11
At 31 December 2022	466	1	467

(EUR million)	2022			2021		
	Investment contributions	Other contract liabilities	Total	Investment contributions	Other contract liabilities	Total
< 1 year	15	-	15	-	-	-
1-5 years	53	-	53	10	1	11
> 5 years	398	1	399	363	-	363
Total	466	1	467	373	1	374

① Accounting policy

Contract liabilities are recognised when the payment is made or the payment is due (whichever is earlier). Contract liabilities are recognised in accordance with the related contract. At initial recognition contributions received from third parties are measured at transaction price, presented as contract liabilities ('investment contributions') and are subsequently recognised as revenue over the related asset's useful life.

20 Provisions

(EUR million)	2022			2021		
	Current	Non-current	Total	Current	Non-current	Total
Environmental and decommissioning	1	280	281	7	304	311
Other	57	18	75	20	22	42
Total	58	298	356	27	326	353

(EUR million)	Environmental management and decommissioning	Other	Total
At 1 January 2021	162	42	204
Addition	77	2	79
Utilisation	-4	-2	-6
Changes in estimations	76	-	76
At 31 December 2021	311	42	353
Addition	81	53	134
Utilisation	-	-1	-1
Changes in estimations	-116	-10	-126
Interest	5	1	6
Unused amounts reversed	-	-10	-10
At 31 December 2022	281	75	356

Provisions for environmental management and decommissioning

Provisions for environmental management and decommissioning serves to cover future obligations in relation to high-voltage connections, underground cables and offshore platforms, including decommissioning costs. Asset retirement obligations are included for the legal and constructive obligations in relation to all our interconnectors and offshore assets. In 2022 EUR 81 million was added (2021: EUR 77 million) for future decommissioning costs for projects constructed during 2022. There was no decommissioning of substations in 2022 or 2021. In line with current regulation and permits, the first decommissioning of an offshore grid connection is expected to start in 2041.

Other provisions

The majority of other provisions relates to claims, tariffs related provisions and personnel related provisions. TenneT TSO 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 associated provision has been calculated on the basis of actuarial principles. The main assumptions made in this context concern the annual salary increase, the leave chance and an age-dependent retention rate.

The majority of the claims are related to construction contracts and planning damage where the estimated additional payments are capitalised.

On 2 September 2022 a short circuit occurred on the newly built substation Dronten and led to a chain of events that caused damage to various parties. For the estimated costs we have recognised a current provision which is recognised through the statement of income.

① Accounting policy

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. Provisions are measured at the present value of estimated cash flows to settle obligations, based on expected price levels. Cash flows are discounted at a pre-tax rate that reflects the risks specific to the liability. The unwinding of interest components is recognised in the statement of income as finance cost.

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 and recorded in tangible fixed assets. All other provisions changes in estimated future costs and discount rates are recognised in the statement of income.

Key estimates and assumptions

The estimated decommissioning provision involves 1) assessing decommissioning costs and 2) assessing the expected remaining useful life of the relevant asset. The main uncertainties related to the decommissioning costs are the removal method (currently assuming reverse installation), the uncertainties around equipment and vessel availability and market rates at expected time of decommissioning. As at 31 December limited benchmark information was available. Decommissioning costs are provided for at the present value of expected costs to settle the obligation. The useful life of the offshore grid connections is estimated at 20 till 30 years. For interconnectors the useful life is estimated at 40 years. This provision assumed a discount rate between 2.409% and 2.739% (2021: between 0.165% and 0.318%) and an inflation rate between 2.594% and 2.624% (2021: 2.0%). A change in the discount rate of 1 percent point would have a maximum impact of EUR 40 million on the asset value and liability value.

A discount rate of 2.7% (short term) and 2.9% (long term) were applied for environmental management provisions (2021: 0.0%). A change in discount rate of 1 percent point would have a maximum impact of EUR 0.5 million on the related book value.

A discount rate of 4.25% was applied for other provisions (2021: 1.5%). A change in discount rate of 1 percent point could have a maximum impact of EUR 2.6 million on the related book value.

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

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

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

Uncertainties relating to contingent liabilities make a reliable estimation of the financial impact impossible. For further contingent liabilities please refer to note 27.

21 Account- and other payables

(EUR million)	2022	2021
Accounts payable	44	205
Grid expenses payable	245	145
Social securities and other taxes payable	18	17
Payables to related parties	133	28
Accruals for tangible fixed assets	8	-
Other payables	111	133
Total	559	528

Accounts payable

The decrease of accounts payable is mainly due to lower days outstanding of invoices and a shift to grid expenses payable.

Grid expenses payable

The grid expenses payable consisted mainly of accrued expenses for (i) feed-in management and (ii) redispatch measures. The increase is caused by the developments described in Note 4 and a shift from accounts payable to grid expenses payable.

Key estimates and assumptions

Accrued expenses for measures taken to restore the imbalance of the electricity grid, relate to balancing services provided by various electricity generating parties. At year-end, we record an accrual for all balancing costs. The accrual is based on actual volumes or, if not available, forecast volumes derived from models. Several assumptions are made in these models such as weather conditions, requested volumes and capacity per plant. Prices are based on underlying contracts and/or historical data.

Payables to related parties

Payables to related parties increased due to increased volatility with respect to revenue and expenses at TenneT TSO, this payable will be transferred to TenneT Group.

Accounting policy

Please refer to note 26, accounting policies for financial instruments.

22 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. Reference is made to note 16 Cash and cash equivalents.

① Accounting policy

Please refer to note 26, accounting policies for financial instruments.

23 Decree on Financial Management of Grid Operators

As the national network operator, TenneT must comply with the requirements in Article 43, paragraph 9, point c of the Dutch Electricity Act 1998 and Article 18a paragraph 1 of the Decree on Financial Management of Grid Operators (Besluit Financieel Beheer Netbeheerder) ("BFBN"). Following article 3b of the BFBN TenneT confirms that a credit rating agency has assigned an investment grade credit rating to TenneT TSO B.V.

24 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 done by our Treasury department under policies included in the Treasury Statute approved by the Executive Board. The Treasury department's objective is to facilitate the realisation of our financial and strategic objectives from a funding and financial risk perspective. 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 explicitly not authorised.

Interest rate risk

TenneT is exposed to interest rate risk on its debt. TenneT's debt mainly consists of long term intercompany loans provided by TenneT Holding B.V. The long term intercompany loans carry a flexible interest rate which is based on the cost of TenneT Holding B.V.'s external loan portfolio. To limit the interest rate risk, TenneT Holding B.V.'s policy is to base the majority of its external loan portfolio on fixed interest rates. As of 31 December 2022, the external loan portfolio was for more than 98% based on fixed interest rates. An increase or decrease in interest rates of 2 percentage points would result in an increase or decrease of EUR 1.4 million in TenneT's interest cost (applicable to 2022 and 2021).

Furthermore, there is a risk that interest payable on borrowings exceeds the interest compensation received by TenneT under the prevailing regulatory system. In 2022 a new regulatory period started in the Netherlands. Currently we expect that actual costs of debt for TenneT are below the predefined maximum reference rates, in which ACM has decided to ex post settle the interest rate for interest rates actually measured in the applicable year of the regulatory period.

Credit risk

TenneT is 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.

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

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 TSO requires 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 13 and 15. The movement of the allowance for expected credit losses of trade receivables is included in note 13.

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 TSO considers a financial asset in default when contractual payments are 90 days past due. However, in certain cases, TenneT TSO 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 TSO.

Financial credit risk

In 2022 financial credit risk arose mainly from our transactions and positions with financial institutions. As at 31 December 2022, the maximum credit risk amounted to nil (2021: 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.

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

Liquidity risk

Liquidity risk is defined as the risk that TenneT Group cannot meet its short-term financial obligations. Liquidity is monitored every quarter on a rolling 12-month forward-looking basis. The 12-month liquidity objective of TenneT Group was met on 31 December 2022 and 31 December 2021.

The following maturity schedules 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 2021							
Lease liabilities	9	2	1	11	40	66	120
Borrowings	18	-	-	-	-	4,356	4,356
Total		2	1	11	40	4,422	4,476
At 31 December 2022							
Lease liabilities	9	2	1	10	45	71	129
Borrowings	18	-	-	-	-	5,221	5,221
Total		2	1	10	45	5,292	5,350

(EUR million)	Notes	< 12 months	1 to 5 years	More than 5 years	Total
At 31 December 2021					
Account- and other payables	21	524	4	-	528
Other financial liabilities	22	281	-	-	281
Total		805	4	-	809
At 31 December 2022					
Account- and other payables	21	559	-	-	559
Other financial liabilities	22	550	-	-	550
Total		1,109	-	-	1,109

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 TSO's assets has been provided.

We expect to meet our financial obligations for 2023 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.

Equity risk

There is a risk of a lack of access to equity on a sustainable basis. This risk reflects the inability to raise additional equity in a timely fashion in case of unexpectedly large increases in our investment portfolio or negative regulatory developments. Actions taken in order to mitigate this risk are: (i) an active financing strategy to create and maintain an optimal capital structure as well as to diversify funding sources and manage financial risks, (ii) a proactive approach of potential investors and active discussion with our shareholder to contribute additional equity (an amount of EUR 1.2 billion was received in 2022, see note 18) and (iii) lobbying activities to ensure that regulatory frameworks remain adequate to safeguard regulators income and returns to investors.

Commodity price risk

Energy purchase contracts for the forward purchase of electricity that are used to satisfy physical delivery requirements to customers, or for energy that the Group uses itself, meet the expected purchase or usage requirements of IFRS 9. They are, therefore, not recognised in the financial statements until they are realised. Disclosure of commitments under such contracts is made in note 27.

Energy purchase contracts are considered to comprise two components, being a forward purchase of power at spot prices, and a forward purchase of environmental certificates at a variable price (being the contract price less the spot power price). With respect to our current contracts, neither of these components meets the requirement to be accounted for as a derivative. As currently no liquid market for environmental certificates exists, this component meets the expected purchase or usage exemption of IFRS 9. We expect to enter into an increasing number of these contracts, in order to meet our compliance requirements in the short to medium term. It is possible that in future, if and when liquid markets develop, and to the extent that we are in receipt of environmental certificates in excess of our required levels, this exemption may cease to apply, and we may be required to account for forward purchase commitments for environmental certificates as derivatives at fair value through profit and loss.

25 Fair values

The table below provides an overview of the carrying value and fair value of the borrowings, including IFRS treatment and the level in the valuation hierarchy. Instruments are measured at fair value.

(EUR million)	Notes	Carrying amount		Fair value		Hierarchy
		2022	2021	2022	2021	
Financial liabilities						
<i>Borrowings:</i>						
- Borrowings	18	5,221	4,356	4,374	4,688	Level 2
Total		5,221	4,356	4,374	4,688	

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 2022, 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 was based on discounted cash flows. A change in the assumptions used to calculate the fair value should not result in a significantly different outcome. There were no transfers between the fair value hierarchy levels during 2022 or 2021.

26 ⓘ Accounting policies for financial instruments

Financial assets

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

After initial recognition 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 are recognised at fair value. TenneT TSO's other financial assets are classified as amortised cost, because the following two conditions are met:

- The financial assets are held within a business model with the objective to hold financial assets in order to collect contractual cash flows, and
- 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 TSO 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 TSO expects to receive, discounted at an approximation of the original effective interest rate. For trade receivables and contract assets, TenneT TSO applies a simplified approach in calculating ECLs. Therefore, TenneT TSO 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 case of loans and borrowings and payables, net of directly attributable transaction costs. TenneT TSO'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.

27 Commitments and contingencies

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

(EUR million)	2022	2021
Investment related off-balance items		
<i>Off-balance sheet rights</i>		
Bank guarantees received and other items	344	368
Total	344	368
<i>Off-balance commitments</i>		
Capital commitments	1,854	2,063
Total	1,854	2,063
Other off-balance items		
<i>Other off-balance obligations</i>		
Grid-related commitments	87	136
Guarantees issued	-	2
Other off-balance sheet commitments	72	41
Total	159	179

The expected cash flows in respect of capital commitments equals the amounts in the above table. For comfort letters issued, no cash flows are expected.

Bank guarantees received and other items

The majority is related to bank guarantees received included guarantees for investment projects. Furthermore, on 2 September 2022 a short circuit occurred on the newly built substation Dronten and led to a chain of events that caused damage to various parties. For the estimated costs we have recognised a current provision. The damages have been reported to the insurance companies and are estimated to be covered.

Capital commitments

The majority of comfort letters received was from parties involved in the construction of onshore and offshore projects.

Grid related commitments

Grid-related commitments included unused auction receipts, received in the Netherlands amounting to EUR 87 million (2021: EUR 136 million).

Guarantees issued

No issued bank guarantees remained open at year end 2022 (2021: EUR 2 million).

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.

For these items it is not practicable possible to determine the financial effect and possible timing of cash inflows and outflows.

Various other off-balance sheet commitments and contingencies as well as other off-balance sheet rights existed as of 31 December 2022 but were immaterial from a disclosure perspective. The majority of these claims related to (i) construction contracts and planning damage 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 TSO 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 TenneT TSO's financial situation.

Environmental obligations

TenneT TSO is exposed to risks regarding environmental obligations arising from past activities. For example, a number of sites have to be decontaminated and restored to their original condition before being handed back at the end of the contractual period. Under current legislation, environmental plans and any other measures to be adopted have to be agreed with local, regional and national authorities as appropriate. As soon as such plans are approved or other legal obligations arise, a provision is formed based on the most reliable estimate possible of future expenses. TenneT is of the opinion that the currently recognised provisions are adequate, based on information currently available.

28 Related parties

The following related parties are identified at TenneT Holding Group. For an overview of legal entities and joint ventures that are included in the consolidated financial statements, reference is made to note 29 and note 12. 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
DC Netz DolWin4 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
GlobalWays GmbH	Stuttgart	Germany
Holding des Gestionnaires de Réseaux de Transport d'Électricité S.A.S	Paris	France
Nlink International B.V.	Arnhem	Netherlands
NOVEC B.V.	Vianen	Netherlands
NOVEC GmbH	Emsbüren	Germany
Omroepmasten 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 GreenNet Stiftung	Bayreuth	Germany
TenneT Holding B.V.	Arnhem	Netherlands
TenneT Offshore 1. Beteiligungsgesellschaft mbH	Bayreuth	Germany
TenneT Offshore 2. 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 Verwaltungen 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 Verwaltungen GmbH	Bayreuth	Germany
TransTenneT B.V.	Arnhem	Netherlands
WL Winet B.V.	Vianen	Netherlands

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.

Interest expenses have been charged by TenneT Holding B.V. and other group companies in total of EUR 92 million. Interest expenses which have been charged to other group companies amounted to nil. Revenue is charged for a total of EUR 22 million to TenneT Germany and for EUR 11 million to other group entities. Other expenses charged by TenneT Germany for a total of EUR 21 million.

29 Consolidated subsidiaries

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

Subsidiary	Legal seat	Country	Voting interest		Economic interest		
			2022	2021	2022	2021	
B.V. Transportnet Zuid-Holland	Voorburg	Netherlands	100%	100%	100%	100%	*
CertiQ B.V.	Arnhem	Netherlands	0%	100%	0%	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 Article 403, Part 9 of Book 2 of the Dutch Civil Code.

** Per 31 December 2022 CertiQ B.V. merged with Vertogas B.V. into VertiCer B.V. which is a joint venture per the same date, reference is made to note 11.

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

30 Events after the reporting period

On 10 February 2023, the Shareholder TenneT Holding announced that it intends to engage in discussions with the German government, to explore the possibility of a full sale of TenneT's German activities on acceptable terms. On 24 February 2023 the Dutch government decided to further investigate a full sale as the preferred option. TenneT Holding acknowledges that its sole shareholder the Dutch government has not yet taken any final decision, and TenneT Holding will take the next steps in close collaboration with the government.

Company financial statements

Company statement of financial position

For the year ended 31 December (EUR million)

Assets	Notes	2022	2021
Non-current assets			
Tangible fixed assets	33	8,708	7,613
Right-of-use assets	9	105	118
Intangible assets	34	200	168
Investments in subsidiaries	35	604	606
Investments in joint ventures and associates	12	3	2
Deferred tax assets	40	417	103
Other financial assets	13, 36	7	8
Total non-current assets		10,044	8,618
Current assets			
Inventories	14	9	4
Account- and other receivables	37	465	416
Cash and cash equivalents	16	550	281
Total current assets		1,024	701
Total assets		11,068	9,319
Equity and liabilities			
	Notes	2022	2021
Paid-up and called capital		100	100
Share premium reserve		3,020	1,790
Retained earnings		1,039	1,335
Legal reserves		113	100
Unappropriated result		-704	-233
Total equity	38	3,568	3,092
Non-current liabilities			
Borrowings	18	5,221	4,356
Contract liabilities	39	445	367
Provisions	20	298	326
Lease liabilities	9	94	106
Total non-current liabilities		6,058	5,155
Current liabilities			
Provisions	20	58	27
Contract liabilities	39	15	-
Other financial liabilities	22	550	281
Lease liabilities	9	13	14
Account- and other payables	41	806	750
Total current liabilities		1,442	1,072
Total equity and liabilities		11,068	9,319

Company statement of income

For the year ended 31 December (EUR million)

	Notes	2022	2021
Revenue	32	1,895	1,341
Grid expenses	4	-2,190	-1,074
Personnel expenses	4	-127	-127
Depreciation and amortisation of assets	8,9,10	-322	-281
Other operating expenses	4	-152	-132
Other (gains)/losses		-6	3
Total operating expenses		-2,797	-1,611
Share in profit of joint ventures and associates	12	1	1
Operating result		-901	-269
Finance income	5	39	-
Finance expenses	6	-87	-46
Finance result		-48	-46
Result before income tax		-949	-315
Income tax expense	7	245	83
Result from participating interests		-	-
Result for the year		-704	-232
Other comprehensive income (net of tax)		-	-
Total comprehensive income		-704	-232

Notes to the company financial statements

These notes contain information about the company financial statements of TenneT TSO B.V.. Details related to TenneT TSO B.V.'s financial results and position are provided, as well as a description of the specific accounting policies applied when compiling these company financial statements.

31 Company accounting policies

The company financial statements for TenneT TSO B.V. have been prepared in accordance with the provisions of Part 9 of 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 362 of Part 9 of Book 2 of the Dutch Civil Code.

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

32 Revenue

(EUR million)	2022	2021
Connection and transmission services	896	801
Maintenance of the energy balance	455	166
Offshore revenues	242	160
Operation of energy exchanges	242	161
Other	27	22
Revenue from related parties	33	31
Total	1,895	1,341

33 Tangible fixed assets

(EUR million)	High-voltage substations	High-voltage connections	Other assets	Assets under construction	Total
Cost					
At 1 January 2021	2,869	3,320	316	1,687	8,192
Additions	-	152	-	1,350	1,502
Transfers	178	136	4	-317	1
Disposals	-	-	-	-4	-4
At 31 December 2021	3,047	3,608	320	2,716	9,691
Additions	102	44	-	1,322	1,468
Transfers	636	134	26	-796	-
Changes in estimations	-52	-38	-	-22	-112
Disposals	-	-	-	-6	-6
At 31 December 2022	3,733	3,748	346	3,214	11,041
Depreciation and impairment					
At 1 January 2021	869	825	162	-	1,856
Depreciation for the year	96	107	19	-	222
At 31 December 2021	965	932	181	-	2,078
Depreciation for the year	113	122	20	-	255
At 31 December 2022	1,078	1,054	201	-	2,333
Net book value:					
At 1 January 2021	2,000	2,495	154	1,687	6,336
At 31 December 2021	2,082	2,676	139	2,716	7,613
At 31 December 2022	2,655	2,694	145	3,214	8,708

For disclosure regarding material movements, please refer to note 8.

34 Intangible assets

(EUR million)	Goodwill	Software	Customer contracts	Other intangible assets	Intangible assets under construction	Total
Cost						
At 1 January 2021	1	240	42	26	58	367
Additions	-	-	-	-	49	49
Transfers	-	51	-	-	-51	-
At 31 December 2021	1	291	42	26	56	416
Additions	-	-	-	-	60	60
Transfers	-	46	-	-	-46	-
At 31 December 2022	1	337	42	26	70	476
Amortisation and impairment						
At 1 January 2021	-	185	38	6	-	229
Amortisation for the year	-	16	3	-	-	19
At 31 December 2021	-	201	41	6	-	248
Amortisation for the year	-	27	1	-	-	28
At 31 December 2022	-	228	42	6	-	276
Net book value:						
At 1 January 2021	1	55	4	20	58	138
At 31 December 2021	1	90	1	20	56	168
At 31 December 2022	1	109	-	20	70	200

35 Investments in subsidiaries

Investments in subsidiaries relate to the legal entities included in the consolidation as disclosed in note 29 of the consolidated financial statements.

Investments in subsidiaries were measured at net asset value. Net asset value of a participating interest was determined by valuing the assets, provisions and liabilities and calculating the result using the accounting principles applied to the consolidated financial statements.

Movement in subsidiaries is materially only related to the result for the year.

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 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 will recognise a provision.

36 Other financial assets

Financial assets mainly comprised of a receivable from the shareholder (TenneT Holding B.V.).

37 Account- and other receivables

(EUR million)	2022	2021
Trade receivables	128	114
Amounts to be invoiced	93	86
Amounts due from other related parties	73	61
VAT receivable	31	56
Subsidies to be received	80	49
Prepaid energy costs	35	22
Other	25	28
Total	465	416

38 Equity

Legal reserves

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

(EUR million)	Reserve for internally generated intangible assets	Revaluation reserve	Total legal reserve
At 1 January 2021	55	22	77
Internally generated intangible assets	52	-	52
Amortisation on internally generated intangible assets	-19	-	-19
Depreciation revaluation tangible fixed assets	-	-10	-10
At 31 December 2021	88	12	100
Internally generated intangible assets	46	-	46
Amortisation on internally generated intangible assets	-24	-	-24
Depreciation revaluation tangible fixed assets	-	-11	-11
At 31 December 2022	110	1	111

The revaluation reserve serves to cover the revaluation of tangible fixed assets within TenneT TSO'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.

Appropriation of result for the year ended 31 December 2022

The annual report 2021 was approved in the General Meeting held on 9 March 2022. The General Meeting has determined the appropriation of result in accordance with the proposal being made to that end.

The appropriation of the 2022 result is at the free disposal of the General Meeting of Shareholders and has not been recorded in the financial statements.

39 Contract liabilities

(EUR million)	Investment contributions	Other	Total
At 1 January 2021	315	1	316
Addition	60	-	60
Amortisation	-9	-	-9
At 31 December 2021	366	1	367
Addition	103	-	103
Amortisation	-10	-	-10
At 31 December 2022	459	1	460

(EUR million)	2022			2021		
	Investment contributions	Other contract liabilities	Total	Investment contributions	Other contract liabilities	Total
< 1 year	15	-	15	-	-	-
1-5 years	52	-	52	9	1	10
> 5 years	392	1	393	357	-	357
Total	459	1	460	366	1	367

40 Deferred tax assets

(EUR million)	Statement of financial position		Statement of income	
	2022	2021	2022	2021
Auction receipts	-7	-14	-6	-67
Investment contributions	-64	-66	-2	-
Tariffs to be settled	387	86	-302	-62
Depreciation for tax purposes	92	91	-1	-14
Provisions	8	5	-3	-
Other	1	1	-	-
Net deferred tax assets/(liabilities)	417	103		
Deferred tax expense/(income)			-314	-143

For further disclosure regarding income tax, please refer to the consolidated financial statements (note 7).

41 Account- and other payables

(EUR million)	2022	2021
Payables to related parties	369	252
Accounts payable	44	205
Taxes and social securities	18	17
Accruals for Tangible fixed assets	8	-
Other payables	367	276
Total	806	750

A list of all related parties can be found in note 28 of the consolidated financial statements. Other payables mainly comprised of personnel payables, invoices to be received and investment related payables.

42 Off-Balance sheet commitments

Details on the off-balance sheet commitments are included in the consolidated financial statements, please refer to note 27.

43 Events after the reporting period

Refer to [note 30](#) of the consolidated financial statements.

Arnhem, 6 March 2023

Management Board of TenneT TSO B.V.

A.C.H. Freitag
M.C. Abbenhuis
T.C. Meyerjürgens

TenneT TSO B.V.
Utrechtseweg 310
6812 AR Arnhem
Chamber of Commerce register 09155985

Other information

Profit appropriation

Profit appropriation is governed by Section 32.3 of the Articles of Association, which states the following “To the extent that the profit is not used to make up prior losses in accordance with the provision of paragraph 2, it shall be at the free disposal of the general meeting. In the calculation of the profit amount to be distributed on every share, only the amount of the compulsory payments on the nominal amount of the shares shall be taken into consideration. In the event of a tied vote on a proposal to distribute or reserve profits, the profits to which the proposal relates shall be reserved”.

Independent auditor's report

To: the Shareholder of TenneT TSO B.V. ("TenneT" or the "Company")

Report on the audit of the financial statements 2022 included in the annual report

Our opinion

We have audited the financial statements 2022 of TenneT, based in Arnhem, the Netherlands (the "Financial Statements"). The Financial Statements comprise 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 as at 31 December 2022, and of its result and its cash flows for 2022 in accordance with International Financial Reporting Standards as adopted by the European Union ("IFRS") and with Part 9 of Book 2 of the Dutch Civil Code.; and
- the accompanying company financial statements give a true and fair view of the financial position of TenneT as at 31 December 2022, and of its result for 2022 in accordance with Part 9 of Book 2 of the Dutch Civil Code.

The consolidated financial statements comprise:

1. the consolidated statement of financial position as at 31 December 2022;
2. the following statements for 2022: the consolidated statement of income, the consolidated statements of comprehensive income, changes in equity and cash flows; and
3. the notes comprising a summary of the accounting policies and other explanatory information.

The company financial statements comprise:

1. the company statement of financial position as at 31 December 2022;
2. the company statement of income for 2022; and
3. 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 in accordance with the EU Regulation on specific requirements regarding statutory audit of public-interest entities, the 'Wet toezicht accountantsorganisaties' (Audit firms supervision act), the 'Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten' (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' (Dutch Code of Ethics).

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

Information in support of our opinion

We designed our audit procedures in the context of our audit of the financial statements as a whole and in forming our opinion thereon. The following information in support of our opinion was addressed in this context, and we do not provide a separate opinion or conclusion on these matters.

Materiality

Based on our professional judgement we determined the materiality for the financial statements as a whole at EUR 41 million. The materiality is based on 1.1% of equity, as set out in note 17 of the consolidated financial statements. We have also taken into account misstatements and/or possible misstatements that in our opinion are material for the users of the financial statements for qualitative reasons.

Component audits are performed using the materiality levels determined by the judgement of the group engagement team, considering materiality for the consolidated financial statements as a whole and the reporting structure of the group. For the largest reporting entities, the audits are performed using the following component materiality levels:

- (i) TenneT TSO B.V. EUR 41 million (2021: EUR 40 million);
- (ii) Nadine Netwerk B.V. EUR 20.5 million (2021: EUR 20 million); and
- (iii) B.V. Transportnet Zuid Holland: EUR 20.5 million (2021: EUR 20 million).

For the other reporting entities, the component materiality levels did not exceed EUR 20 million (2021: EUR 20 million).

We agreed with the Supervisory Board of TenneT Holding B.V. (the “Supervisory Board”) that misstatements in excess of EUR 2 million (2021: EUR 2 million), which are identified during the audit, would be reported to them, as well as smaller misstatements that in our view must be reported on qualitative grounds.

Scope of the group audit

TenneT TSO B.V. is the head of a group of entities. The financial information of this group is included in the consolidated financial statements of TenneT TSO B.V.

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

In establishing the overall group audit strategy and plan, we determined the type of work that needed to be performed at the components by the group engagement team and the component auditors.

Our group audit mainly focused on the significant group entity TenneT TSO B.V., because this company make up more than 90% of the group’s revenue, underlying operating profit and assets. We included additional reporting entities in the scope of our group audit to have additional audit coverage on the group’s consolidated financial statements, and performed other procedures with respect to residual risk in components and account balances that have not been included in audit scope.

The group engagement team performed the audit procedures at all group entities. Team members with specialized knowledge were involved in the areas of tax, accounting, valuation and information technology.

We have obtained the following audit coverage of the group with our audit procedures:

Audit coverage	
Revenue	97%
Underlying operating profit	97%
Assets	99%

By performing the procedures mentioned above at group entities, together with additional procedures at group level, we have been able to obtain sufficient and appropriate audit evidence about the group’s financial information to provide an opinion on the consolidated financial statements.

Audit approach fraud risks

Description

An auditor conducting an audit in accordance with Dutch Standards on Auditing is responsible for obtaining reasonable assurance that the Financial Statements taken as a whole are free from material misstatement, whether caused by fraud or error. Owing to the inherent limitations of an audit, there is an unavoidable risk that some material misstatements of the Financial Statements may not be detected. 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.

We have exercised professional judgement and have maintained professional scepticism throughout our audit in identifying and assessing the risks of material misstatement of the Financial Statements due to fraud, 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.

Our response

We performed the following procedures:

- In identifying potential risks of material misstatement due to fraud, we obtained an understanding of TenneT and its environment, including its internal controls. We evaluated TenneT's fraud risk assessment and made inquiries with management, those charged with governance and others within TenneT, including but not limited to the units (i) Internal Audit, (ii) Compliance & Integrity and (iii) Financial Governance Services. We evaluated several fraud risks factors to consider whether those factors indicated a risk of material misstatement due to fraud.
- Following these procedures, and the presumed risks under the prevailing auditing standards, we considered the fraud risks in relation to management override of controls, including evaluating whether there was evidence of bias by the Supervisory Board, the Executive Board and other members of management, which may represent a risk of material misstatement due to fraud. As part of the fraud risk of management override of controls, we identified a significant risk due to fraud related to classification of operational expenditure as capitalized expenditure given the differences in related regulatory accounting and thus future revenues.
- We made inquiries of management, those charged with governance and others within TenneT regarding the risk of material misstatements in the Financial Statements due to fraud, their process for identifying and responding to the risk of fraud, the internal communication regarding their views on business practices and ethical behaviour and whether they have knowledge of any actual, suspected or alleged fraud affecting the Company.
- We held discussions amongst team members and component auditors to identify fraud risk factors and considered whether other information obtained from our risk assessment procedures indicated risks of material misstatement due to fraud. Fraud risk factors identified include among others:
 - fraud, bribery and corruption;
 - compliance with respect to trade regulations/sanctions;
 - compliance with respect to environmental requirements; and
 - compliance with procurement policies.
- We evaluated whether unusual or unexpected relationships have been identified in performing analytical procedures, that may indicate risks of material misstatement due to fraud.
- We involved forensic specialists, focused on our fraud and non-compliance risk assessment, inquiries with management, the evaluation of the internal control environment and in determining the audit response.
- We determined overall responses to address the assessed risks of material misstatement due to fraud at the financial statement level or at the assertion level by:
 - assigning and supervising personnel with the adequate knowledge, skills and ability;
 - evaluating whether the selection and application of accounting policies by the group, particularly those related to subjective measurements and complex transactions, may be indicative of fraudulent financial reporting;
 - incorporating an element of unpredictability in the selection of the nature, timing and extent of our audit procedures. Among others, these include the selection of fixed asset project tested, expense sampling selection criteria and (physical) asset inspection;
 - testing the appropriateness of journal entries recorded in the general ledger and other adjustments made in the preparation of the Financial Statements;

- evaluating whether the judgments and decisions made by management in making the accounting estimates included in the Financial Statements indicate a possible bias that may represent a risk of material misstatement due to fraud. Significant accounting judgements, estimates and assumptions that might have a major impact on the Financial Statements are disclosed in note 1 of the consolidated Financial Statements. Useful life of assets, grid expense payables and the provision for decommissioning were focus areas in our audit as the related account balances are subject to significant management judgment. Reference is made to the section “Our key audit matters”; and
- performing a retrospective review of management judgments and assumptions related to significant accounting estimates such as cost assumptions on the decommissioning provisions and in-feed management accruals reflected in prior year Financial Statements. We considered available information and made enquiries of relevant executives and the Supervisory Board.

Based on our procedures performed we have no matters to report.

Audit approach compliance with laws and regulations

Description

We are responsible for obtaining reasonable assurance that the Financial Statements, taken as a whole, are free from material misstatement, whether due to fraud or error taking into account the applicable legal and regulatory framework. However, we are not responsible for preventing non-compliance and cannot be expected to detect non-compliance with all laws and regulations.

Owing to the inherent limitations of an audit, there is an unavoidable risk that some material misstatements in the Financial Statements may not be detected, even though the audit is properly planned and performed in accordance with the auditing standards. In the context of laws and regulations, the potential effects of inherent limitations on the auditor's ability to detect material misstatements are greater for such reasons as the following:

- There are many laws and regulations, relating principally to the operating aspects of an entity, that typically do not affect the Financial Statements and are not captured by the entity's information systems relevant to financial reporting.
- Non-compliance may involve conduct designed to conceal it, such as collusion, forgery, deliberate failure to record transactions, management override of controls or intentional misrepresentations being made to the auditor.
- Whether an act constitutes non-compliance is ultimately a matter to be determined by a court or other appropriate adjudicative body.

Ordinarily, the less directly non-compliance is linked to the events and transactions reflected in the Financial Statements, the less likely the auditor is to become aware of it or to identify the non-compliance.

Our response

We performed the following procedures:

- As part of obtaining an understanding of TenneT and its environment we obtained a general understanding of the legal and regulatory framework applicable to TenneT and the industry in which it operates and how TenneT is complying with that framework.
- We assessed the laws and regulations relevant to the Company through discussion with management, those charged with governance and others within TenneT, including but not limited to the units (i) Internal Audit, Risk & Internal Control and Compliance & Integrity, (ii) Legal Affairs, (iii) Regulatory Affairs and (iv) Financial Governance Services. We have read related minutes and reports. We involved our forensic specialists in our evaluation.
- We obtained sufficient appropriate audit evidence regarding provisions of those laws and regulations generally recognized to have a direct effect on the determination of material amounts and disclosures in the Financial Statements such as (corporate) tax and pension laws and financial reporting regulations, the requirements under IFRS and Part 9 of Book 2 of the Dutch Civil Code.
- Apart from these, TenneT is subject to other laws and regulations where the consequences of non-compliance could have a material effect on amounts and/or disclosures in the Financial Statements, for instance, through imposing fines or litigation. Given the nature of TenneT's business and the complexity of energy laws and regulations in the Netherlands and Germany, as well as environmental laws, there is a risk of non-compliance with the requirements of such laws and regulations. In addition, we considered relevant laws and regulations applicable to listed companies.

- Our procedures are more limited with respect to other laws and regulations that do not have a direct effect on the determination of the amounts and disclosures in the Financial Statements. These laws and regulations compliance may be fundamental to the operating aspects of the business, to TenneT's ability to continue its business, or to avoid material penalties (e.g., compliance with the terms energy laws in the Netherlands and Germany or compliance with environmental regulations) and therefore non-compliance with such laws and regulations may have a material effect on the Financial Statements. Our responsibility is limited to undertaking specified audit procedures to help identify non-compliance with those laws and regulations that may have a material effect on the Financial Statements.
- Our procedures are limited to (i) inquiry of the Management Board, the Supervisory Board and others within TenneT as to whether the Company is in compliance with such laws and regulations and (ii) inspecting correspondence, if any, with the relevant licensing or regulatory authorities to help identify non-compliance with those laws and regulations that may have a material effect on the Financial Statements.
- We remained alert to indications of (suspected) non-compliance throughout the audit.
- We obtained written representations that all known instances of (suspected) fraud or non-compliance with laws and regulations have been disclosed to us.

Based on our procedures, we have no matters to report.

Audit approach going concern

Description

We are responsible for obtaining reasonable assurance that the Company is able to continue as a going concern. Management is responsible to assess the Company's ability to continue as a going concern and disclosing in the Financial Statements any events or circumstances that may cast significant doubt on the Company's ability to continue as a going concern.

As described in note 1, the Management Board believes that no events or conditions give rise to doubt about the ability of the Company to continue in operation in the next reporting period.

Our response

We performed the following procedures:

- We evaluated management's assessment of the going concern assumption and related disclosure note 1 of the Financial Statements.
- We challenged management's cash flow forecasts and primary assumptions, also in the light of our understanding obtained with regards to management's outlook as reported in the Management Board Report.
- We audited the Company's repayment obligations as disclosed in note 24.

Based on our procedures, we have no matters to report.

Our key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the Financial Statements. We have communicated the key audit matters to the Supervisory Board. The key audit matters are not a comprehensive reflection of all matters discussed. The key audit matters are consistent with prior year.

These matters were addressed in the context of our audit of the Financial Statements as a whole and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Tangible fixed assets

Description

Securing supply and facilitating the integration of sustainable energy sources into the high-voltage grid require substantial investments and flexible access to (equity) funding. TenneT expects to increase its annual investment volume in on- and offshore grid connections significantly.

We have included this as a key audit matter because of:

- the financial significance of the tangible fixed assets and related capital expenditures;
- the risks associated with large investment projects, complexity in procurement, construction and timely completion;
- the professional judgment required in determining the impact of the energy transition on (i) (funding) the capital investment planning, and (ii) the existing asset portfolio, including the assessment of remaining useful lives of assets; and
- the professional judgement required in (i) assessing whether there is any indication that an asset may be impaired and (ii) if there is any such indication, estimating the recoverable amount of that asset (i.e., measuring any impairment).

Our response

We performed the following procedures:

- We tested the internal control environment related to tangible fixed assets through testing of operating effectiveness of relevant controls, including controls related to (i) investment approval, (ii) the financial closing of assets under construction, and (iii) the periodic determination of the useful lives of tangible fixed assets.
- We tested the design and implementation of relevant controls related to TenneT's liquidity forecast underpinning its ability to finance investments.
- We obtained and discussed internal management reports about progress of the key assets under construction and performed tests of details on the additions to and other movements in tangible fixed assets.
- We evaluated management's estimation of the useful lives of tangible fixed assets based on economic, regulatory and technical data.
- We evaluated management's assessment that no indications were identified that any assets may be impaired as at 31 December 2022.

Our observations

Our procedures did not identify material observations and we considered management's key assumptions, to be within the reasonable range of our own expectations.

Provision for decommissioning of (offshore) assets

Description

Decommissioning of offshore assets will be an important topic over the next 30+ years for TenneT as a large part of its assets come to the end of their useful life. Furthermore, moving towards a renewable future involves significant investments in offshore assets, requiring recognition of new provisions. The corresponding provisions are based on estimates of costs, timing of decommissioning, discount rates and inflation.

We have included this as a key audit matter because of:

- the significance of the provision and additions for the year triggered by the start of construction of new (offshore) assets; and
- the uncertainty involved in measuring the provision and sensitivity to changes in key assumptions, including the cost base, the inflation rate and the discount rate.

Our response

We have obtained management's position papers on the cost assumptions. Our audit procedures included testing of design and implementation of relevant controls around the periodical assessment of these assumptions and the evaluation of the financial model used to calculate the provision.

Our substantive audit procedures further include an assessment of the reasonability of the key assumptions through comparison with observable market data and procedures to address the completeness of the provision.

Furthermore, we evaluated the appropriateness of the disclosure of the accounting policy and estimation uncertainty of these provisions.

Our observations

Our procedures did not identify material observations and we considered management's key assumptions, to be within the reasonable range of our own expectations.

Report on the other information included in the annual report

The annual report contains other information, in addition to the Financial Statements and our auditor's report thereon.

The other information comprises:

1. Director's Report, consisting of:
 - About TenneT TSO B.V.;
 - the Management Board Report;
2. other information as required by Part 9 of Book 2 of the Dutch Civil Code; and
3. other information included in the annual report.

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

- is consistent with the Financial Statements and does not contain material misstatements; and
- contains all the information regarding the director's report and the other information as required by Part 9 of Book 2 of the Dutch Civil Code.

We have read the other information. Based on our knowledge and understanding obtained through our audit of the Financial Statements or otherwise, we have considered whether the other information contains material misstatements.

By performing these procedures, we comply with the requirements of Part 9 of Book 2 of the Dutch Civil Code and the Dutch Standard on Auditing 720. The scope of the procedures performed is substantially less than the scope of those performed in our audit of the Financial Statements.

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

Report on other legal and regulatory requirements

Engagement

We were engaged by the annual meeting of shareholders as auditor of TenneT on 18 December 2019, as of the audit for the year 2020 and have operated as statutory auditor ever since that financial year.

No prohibited non-audit services

We have not provided prohibited non-audit services as referred to in Article 5(1) of the EU Regulation on specific requirements regarding statutory audit of public-interest entities.

Description of responsibilities regarding the Financial Statements

Responsibilities of management and the Supervisory Board for the Financial Statements

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

As part of the preparation of the Financial Statements, management is responsible for assessing the Company's ability to continue as a going concern. Based on the financial reporting frameworks mentioned, management should prepare the Financial Statements using the going concern basis of accounting unless management either intends to liquidate the company or to cease operations, or has no realistic alternative but to do so.

Management should disclose events and circumstances that may cast significant doubt on the Company's ability to continue as a going concern in the Financial Statements.

The Supervisory Board is responsible for overseeing the Company's financial reporting process.

Our responsibilities for the audit of the Financial Statements

Our objective is to plan and perform the audit 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 detect all material errors and fraud during our audit.

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

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

- Identifying and assessing the risks of material misstatement of the Financial Statements, whether due to fraud or error, designing and performing audit procedures responsive to those risks, and obtaining audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtaining an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
- Evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Concluding on the appropriateness of management's use of the going concern basis of accounting, and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the Financial Statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the 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 communicated with the Supervisory Board regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant findings in internal control that we identified during our audit. In this respect we also submitted an additional report to the Audit Risk and Compliance Committee in accordance with Article 11 of the EU Regulation on specific requirements regarding statutory audit of public-interest entities. The information included in this additional report is consistent with our audit opinion in this auditor's report.

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

From the matters communicated with the Supervisory Board, we determine the key audit matters: those matters that were of most significance in the audit of the Financial Statements. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, not communicating the matter is in the public interest.

Zwolle, 6 March 2023

Deloitte Accountants B.V.

Signed on the original G.C. Hamer

Glossary

ABP – Algemeen Burgerlijk Pensioenfonds

ABP, is the civil service pension fund for government, education and energy employees in the Netherlands.

AC – Alternating current

In alternating current (AC), the flow of electricity periodically reverses direction. By contrast direct current (DC), electricity only flows in one direction. AC is used to transport electricity over relatively shorter distances and DC for relatively longer distances.

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 (CO₂).

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.

CO₂ – Carbon dioxide

Carbon dioxide is a greenhouse gas formed by the burning of carbon-based fuels. Its concentration in the atmosphere is rapidly increasing, leading to global warming.

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 developed 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 Fedra 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 distributors. A TSO is responsible for providing (1) power transmission services, by constructing and maintaining a robust high-voltage grid, (2) system services, by maintaining the balance between supply and demand of electricity 24 hours a day, and seven days a week and (3) facilitating a smoothly functioning, liquid and stable electricity market.

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We look forward to receiving your feedback on this report, please send an email to communication@tennet.eu

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.