

# Key figures 2023

## Overarching indicators

**80%\***  
Internal Engagement Index

**7.8\*\***  
Reputation survey



## Secure supply today and tomorrow

**99.99993%** Target: 99.99962%  
**Onshore grid availability**  
Grid availability

**7,730** Target: 6,278  
**Future proof grid**  
Investments (in EUR million)



## Drive the energy transition

**33%**  
**Environmental impact**  
% Greened of our carbon footprint (location-based)

**12.2 GW** Target: 11.5 GW by 2023, 43.1 GW by ~2030  
**Offshore grid connection capacity**  
Offshore capacity in operation (in GW)

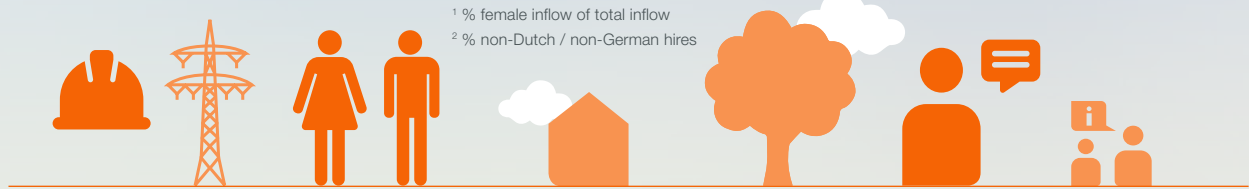


## Energise our people and organisation

**4.5** Target: 4.3  
**Safe workforce**  
TRIR group (including contractors)

**32%** Target: 30%<sup>1</sup>  
**Diverse workforce**  
<sup>1</sup> % female inflow of total inflow  
<sup>2</sup> % non-Dutch / non-German hires

**NL 3.9, DE 3.4**  
**Healthy workforce**  
Absentee rate the Netherlands and Germany



## Safeguard our financial health

**1,709** Target: 1,386  
**Healthy financial operations**  
Adjusted underlying EBIT group (in EUR million)\*\*\*

**5.8%** Target: 4.2%  
**Satisfied capital providers**  
ROIC group (%)\*\*\*

**11.6%** Target: 8.5%  
**Safeguarded capital structure**  
Adjusted FFO/Net debt (%)\*\*\*



\* The latest employee survey was performed in 2021. In 2023, we decided to update the way we monitor this and will report accordingly in our next annual report.

\*\* Our reputation survey is executed every 2 years. The most recent survey was performed in 2022.

\*\*\* Reference is made to the chapter 'Safeguard sustainable financial performance'.

# Letter from the board



Executive Board (fltr): Tim Meyerjürgens, Chief Operating Officer - Manon van Beek, Chief Executive Officer, Arina Freitag, Chief Financial Officer - Maarten Abbenhuis, Chief Operating Officer

## Energising today and tomorrow

The year 2023 has shown us that international, societal, economic and political stability is under pressure. Running an organisation in ambiguous times is the new normal. The war in Ukraine, the Israeli-Palestinian conflict, the economic downturns and rising cost of living created widespread uncertainty. For TenneT, as we strive to create a reliable carbon-neutral energy system in 2045, it proved to be a year with many dimensions. It is clear that the roadmap towards sustainable prosperity is not linear nor clearly signposted. However, it's a journey TenneT is prepared for and, although there's a need for realism, we have concrete plans based on a vision of the energy system in 2045 for the required grid expansion in Germany and the Netherlands. Focus on execution is key to achieve national and European climate goals.

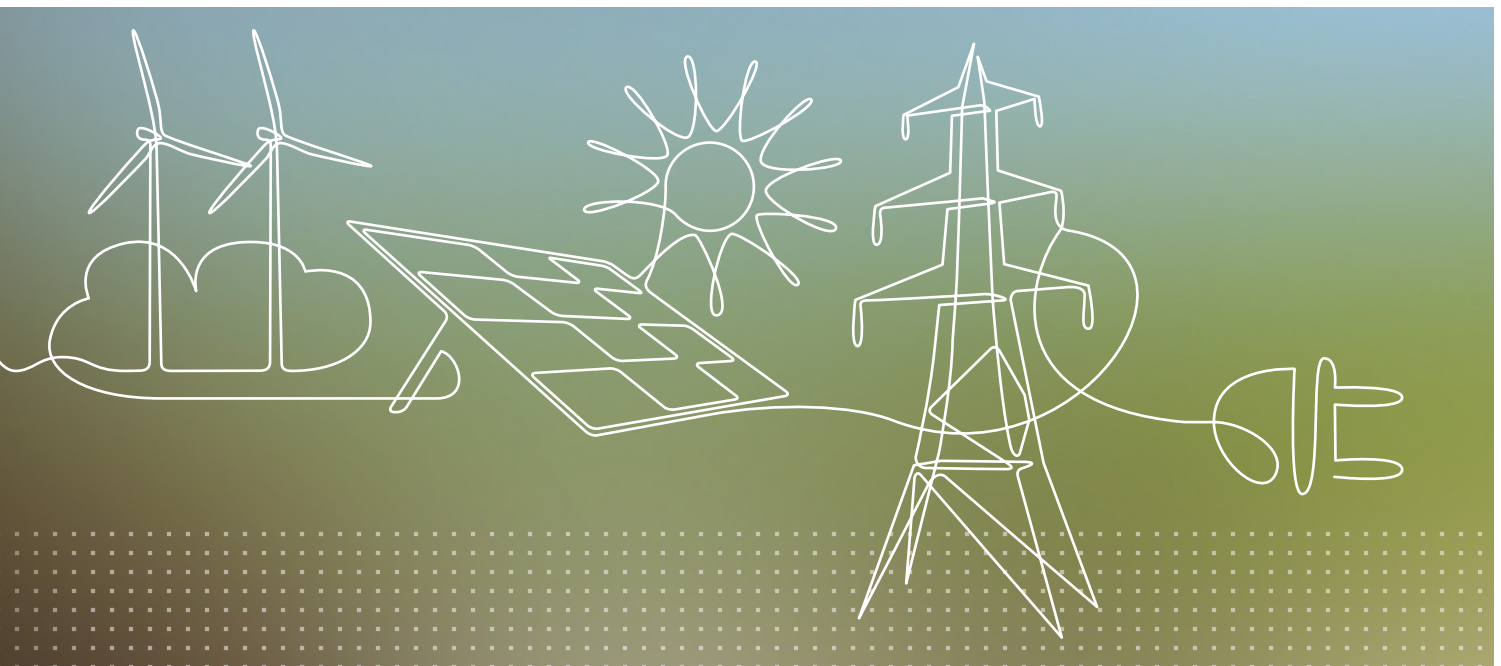
### Reliable, affordable and sustainable

As we work towards these targets, TenneT continued to fulfil its responsibility for grid availability, reaching 99.99993% in 2023. Looking at 2024 and beyond, a supply-secure and independent electricity system that is affordable, reliable and sustainable, remains the ultimate balance to achieve. This requires strong leadership, a collaborative mindset and a consistent energy policy that enables the whole energy sector to grow and make the needed investments. Affordability, as part of the energy trilemma, is gaining importance and center of the societal debate on energy transition. TenneT also attaches great importance to the affordability of the future energy system, which translates, for example, into forward-looking and

smart strategies such as Target Grid that allows a programmatic approach, standards and more efficiencies in the expansion of the grid.

### Safety needs our energy

Especially in these times of steeply growing investments, working safely and always feeling safe to address colleagues and partners and to be addressed on safety are paramount company values. Safe operations and safety for the environment in which we work, and all stakeholders involved in our many projects are number one at TenneT. Realising the necessary expansions to our grids as soon as possible can never compromise safety. Although we have made good strides in 2023, safety continues to require 100 percent attention. TenneT's Total Recordable Incident Rate (TRIR) is stagnating and does not match our ambition of



achieving 'Zero Harm' among all our employees and all our contractors and subcontractors. Our clear life-saving rules were too often violated, leading to high-risk incidents. Since our efforts are aimed at achieving a situation where people always adhere to the Life-Saving Rules, we will put more emphasis on better and faster root cause analyses to learn and improve from reported violations of the Life-Saving Rules.

### Our vision in action

To achieve an electricity grid that enables a reliable climate-neutral energy system in 2045, we need to work, think and act differently. The task before us is feasible, but it will not be achieved by working in the same way as we have done before, by identifying short-term bottle necks in the system and solving them step by step or project by project. Our Target Grid 2045 strategy, which TenneT launched in April 2023, gives us a clear, common goal: an electricity grid that must be ready by 2045 for an energy secure and independent electricity system. Based on internationally agreed scenario's and using a back-casting approach we already know most of what must happen. It also allows us to start the crucial preparations now – there's no time to lose. In line with wider European policy plans, Target Grid envisages the North Sea as the primary source of energy using offshore wind as the green powerhouse for the Netherlands, Germany and other European countries.

One of the key innovations needed to realise this offshore energy ambition is hybrid interconnection. Together, these

interconnectors form a meshed high voltage direct current (HVDC) infrastructure that can connect offshore wind farms to energy markets in multiple countries. This approach will strengthen security of supply and European energy independence, and make the future energy system more resilient, efficient and affordable. TenneT's world-first 2GW standard for HVDC offshore connections is a crucial innovation that enables this, allowing larger wind farms to be connected to the grid with fewer platforms.

Over the past year, constructive discussions have taken place between TenneT and KfW, acting on behalf of the German state, with close involvement of the German state and the Dutch state as TenneT's sole shareholder. To the date of this letter, no agreement has been reached yet on the potential sale of German activities. TenneT and KfW continue their discussions in the coming period, however it is not certain that a deal will be reached. In 2024, TenneT and the Dutch state have made arrangements regarding a temporary shareholder loan facility of EUR 25 billion, safeguarding our planned investments in the Netherlands and Germany for 2024 and 2025. The loan facility, which will be granted at market conditions, is subject to a customary parliamentary approval process, which is currently in progress. Further reference is made to the section "[Future Forward: a potential sale of TenneT Germany](#)".

The first 2GW platforms to be installed in the period until 2031 will be hybrid ready: this means that they are already designed as a hub to be connected to the meshed offshore HVDC grid of the future. Target Grid and our 2GW Program are examples of exponential, unconventional, future-ready thinking. This is a shift from linear to non-linear thinking, planning and developing, which no longer fits the huge task that we, together with society, need to accomplish. Our next challenge and task is to standardise this way of thinking and working in everything we do.

## “More speed is needed to expand the electricity grid.”

### Focus on executing our projects

We invested EUR 7.7 billion in 2023 and this was more than we planned for, mainly due to investments regarding the 2GW Program. Our focus on our promise to speed up our construction pipeline, on land and at sea, is bearing fruit, with significant progress in 2023. After years of preparations in Germany, we started constructing the two crucial north-south HVDC corridors, SuedLink and SuedOstLink – each over five hundreds of kilometres long. During the year, we also completed the 140 kilometre long Westküstenleitung, the 61 kilometre long high-voltage connection Ganderkesee - St. Hülfe and, in the Netherlands, we completed a 40 kilometre electricity highway between Eemshaven and Groningen. Our work is also accelerating offshore. TenneT completed new grid connection systems for large offshore wind farms, Hollandse Kust (noord) and Hollandse Kust (west Alpha) (both 700 MW) and DoIWin6 (900 MW). Research into the feasibility of two new submarine interconnectors, one between the Netherlands and the United Kingdom (LionLink), and the other from Germany to Norway, were announced. These interconnections are particularly significant as they will have a hybrid function, connected to offshore wind farms along the way. This is the tangible start of a European HVDC grid, part of Target Grid.

The hugely accelerated electrification of society is a positive sign of the energy transition, but it also leads to long waiting times to be connected, especially at our regional 110-150 kV grids in the Netherlands. Unfortunately, this will remain a critical situation for the time being. Through the National Grid Congestion Action Plan (LAN), grid operators and government are working closely together to solve grid congestion through a combination of faster permitting and construction, better utilisation of existing infrastructure and by relying on parties to make contracted flexibility available to others.

Due to persistent numerous bottlenecks in the German onshore electricity grid, power from large wind farms in the North Sea must increasingly be scaled back. More speed is therefore needed to expand the electricity grid, for example by building electricity highways.

Looking ahead the European energy transition is unfolding at pace. We anticipate our investments to add up to approximately EUR 160 billion in the coming ten years and will reach at least EUR 10 billion in 2024. For the period until 2045, TenneT plans to construct over 4,800 kilometres of new grid connections on land and at sea in Germany, and 2,500 kilometres in the Netherlands. This requires hundreds of new transformers and dozens of new high-voltage substations. As we build an integrated offshore grid, our current onshore grid will also expand significantly. Space to develop energy infrastructure should be reserved by regional and national governments as soon as possible. Offshore wind is a key electricity source in Europe's decarbonisation plans. The first Offshore Network Development Plan in the North Seas envisages 320 GW of installed wind power by 2050 in the North Seas Energy Cooperation (NSEC) countries and host country, the United Kingdom. TenneT's share of this is envisaged at approximately 70 GW in the Netherlands and roughly between 30 and 40 GW in Germany. TenneT alone is committed to connecting over 40 GW of offshore wind in the Netherlands and Germany.

## Working together by definition

The unprecedented long-term framework agreements that TenneT signed with key suppliers in 2023 to develop HVDC infrastructure are a prime example of intense and far-reaching cooperation. These agreements entail grid connection systems (cables, converter stations) for our offshore 2GW Program, and power transformers and compensation coils to build and modernise substations on land. With these agreements worth tens of billions of euros, new economies of scale and technical standardisations can be achieved.

These are also examples of exponential, unconventional thinking and acting. With these, TenneT secures capacity with suppliers and ensures timely delivery of crucial components. The framework contracts provide our suppliers with the certainty and predictability they need to invest in the additional resources needed. This long-term certainty is also critical for TenneT, as we compete in an energy market tightened by a shortage of suppliers, talent and resources.

## Close to society and our people

To achieve the energy transition, we want to take all stakeholders with us on this journey: governments on various levels, suppliers, NGO's, industries and all citizens. This year more than ever before we have noticed that citizens are mostly supportive of the need for climate action, but when TenneT becomes active in their local area, we encounter more resistance. Of course, we understand that our large projects can have a significant impact on the living environment. But we also cannot escape the reality that we need to expand our electricity grids to maintain security of supply and facilitate sustainable growth for society. We face increasing negotiations with provinces, local residents and time-consuming legal procedures.

This also presents a task for TenneT. To improve mutual understanding, ensure timely decision-making and create support for our work, we have significantly increased our communication and cooperation efforts with local and regional stakeholders. In 2023, we held well over 1,000 meetings with our stakeholders.

Our great thanks go to all our stakeholders for working together in 2023: very good and open cooperation where possible, critical where necessary and always with the energy transition in sight. Our firm belief that we will only get there, if we all get there is starting to gain traction. We wholeheartedly thank all our partners and our 8,336 internal and external employees of more than 70 different nationalities for their courage, connection and ownership that led to our achievements in 2023 that we can be proud of. They really energise today and tomorrow and work tirelessly to maximise the utilisation of our existing assets, increase our grid capacity and develop a reliable climate-neutral energy system by 2045 that supports a prosperous future for people and businesses.

## A wholehearted thank you!

On behalf of TenneT's Executive Board,  
**Manon van Beek** (CEO)



# Future Forward: a potential sale of TenneT Germany

For already 25 years, TenneT has built, maintained and operated the high-voltage electricity grid with the highest level of grid availability, while fulfilling our legal investment obligations to prepare the grid for a climate-neutral energy system.

In 2010, TenneT further boosted the integration of the European electricity market by combining Dutch and German activities and becoming the first ever cross-border TSO. Since, TenneT has become one of the largest investors in offshore wind connections and taking a leading role in the European energy transition. At the same time, the political developments and rapid acceleration of the energy transition in the last few years require an extraordinary amount of capital investments, e.g. to fund grid expansion projects or new offshore grid connection systems. These capital investments are partly covered by (green) debt financing and partly by shareholder equity. In addition to this, both the German and Dutch governments have indicated their preference to control, own and fund, (only) their own national electricity infrastructure. Acknowledging this, TenneT has started to explore different scenarios that would answer to both needs.

## Start of negotiations and conditions

In February 2023, TenneT started to explore the potential sale of German activities to the German state. This sale would not only secure the national funding for the extensive investment programme in both countries, but also create two strong national players that could continue to work together to drive forward the energy transition. Over the past year, constructive discussions have taken place between TenneT and KfW, acting on behalf of the German state, with close involvement of the German state and the Dutch state as TenneT's sole shareholder. The Dutch government supports the sale of German activities, provided that 1) the continuity of business is guaranteed; 2) key synergy benefits are preserved; and 3) it is on a market-based price that reflects the value of the company.

## Current status and reporting implications

To the date of this report, no agreement has been reached yet on the potential sale of German activities. TenneT and KfW continue their discussions in the coming period, however it is not certain that a deal will be reached. TenneT considers that it is highly probable that a transaction will be concluded in 2024. In the consolidated financial statements the IFRS 5 'Assets held for sale' standard is applied, which implies that the German activities are no longer continued per 31 December 2023. Next to the financial statements, the Integrated Annual Report is not affected.

Until a final decision is made, TenneT continues to operate as one integrated company. Our unique growth agenda as a TSO, to meet Dutch and German national and Europe's climate targets, is an indication of the substantial work that still needs to be done.

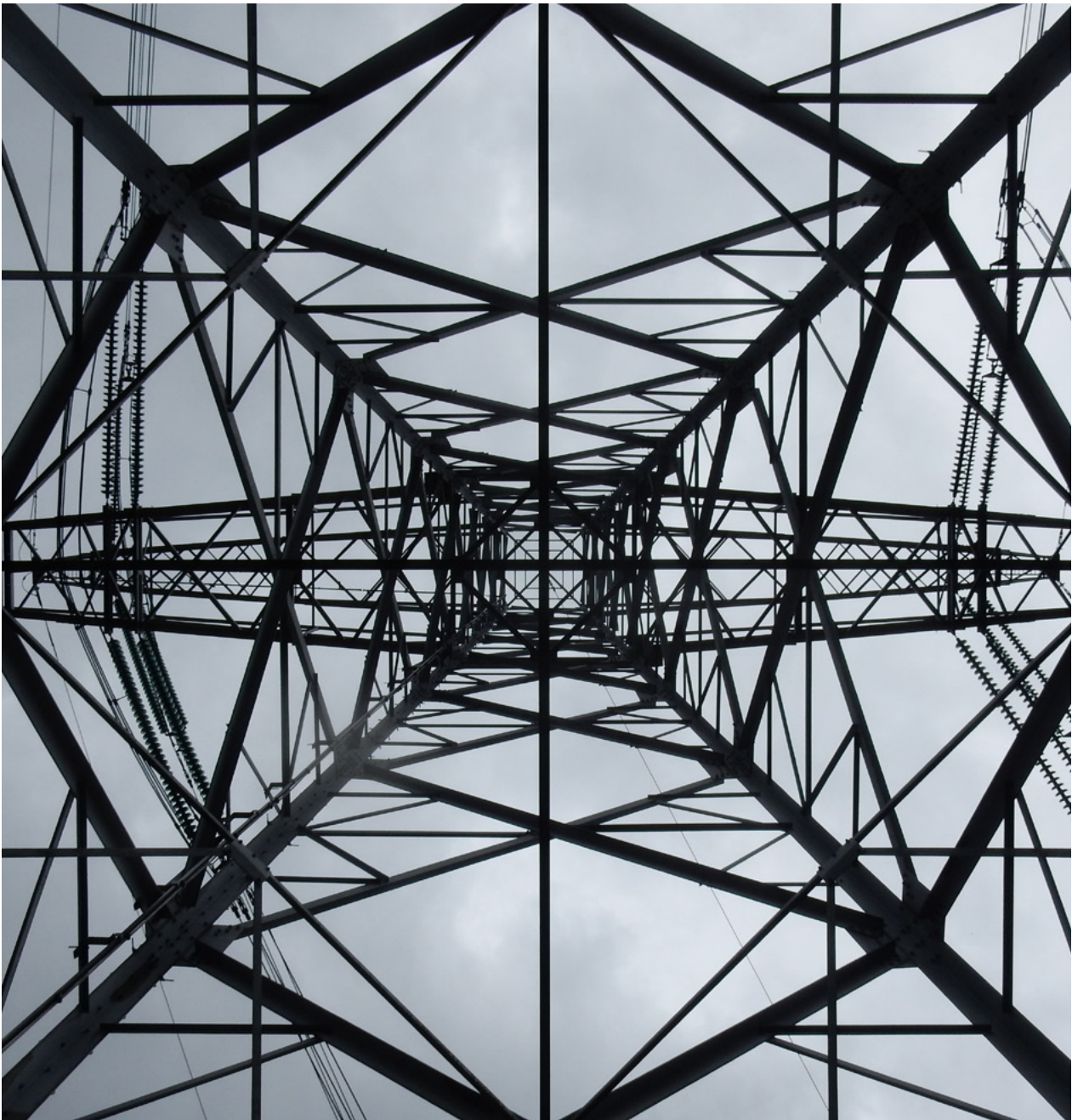
## Loan facility

While the negotiations on the sale of TenneT Germany continue, so does our work regarding large-scale grid expansions onshore and offshore. To realise our planned investments, we need to have funds readily available. For this, TenneT and the Dutch state have made arrangements in 2024 regarding a temporary shareholder loan facility of EUR 25 billion, safeguarding our planned investments in the Netherlands and Germany for 2024 and 2025. The loan facility, which will be granted at market conditions, is subject to a customary parliamentary approval process, which is currently in progress.

In May 2023, TenneT secured a sustainability-linked term loan facility with a consortium of banks of EUR 8 billion with a term of 2.5 years. In addition, in June 2023, the Dutch state provided EUR 1.6 billion to cover funding requirements for TenneT's investments in the Netherlands. This contribution and loan facilities enable us to continue doing our work, while continuing the negotiations on the potential sale.

### Disentanglement of the organisation

To prepare for a potential disentanglement of our organisation, in May 2023 TenneT has started to identify what changes are required on an organisational level. Always taking into account both the Dutch and German perspective, we worked together in workstreams to identify potential risks in case of a split and prepare for a future in which we would operate as two national entities. These preparations are necessary to ensure a smooth transition later on, but in no way interfere with the execution of our investment agenda on full speed.



# About TenneT



## Profile

With over 25,000 kilometres of high-voltage connections both onshore and offshore, our role as a Transmission System Operator (TSO) is to ensure a secure supply of electricity to over 43 million end-users, in the Netherlands and a large part of Germany, and to create the infrastructure needed to secure supply today and tomorrow.

### Our core tasks

Our primary tasks are to provide power transmission services, system services and facilitation of the electricity market. These tasks follow from our role as grid operator under the Dutch and German energy laws, the 'Elektriciteitswet' (E-wet) and the German 'Energiewirtschaftsgesetz' (EnWG).

### Transmitting electricity

Power transmission services mean that our role is to transmit electricity via our electricity grid. This is the backbone of the electricity supply system. We transmit electricity from where it is generated by other parties, either on land or at sea or imported from other markets. Electricity is transmitted to our customers via our high voltage grid, being 110 kV and higher in the Netherlands and 220 kV and higher in Germany. As electricity is often generated far away from where it is used, we need to transmit it over large distances without incurring major losses on the way. To achieve this, we transmit electricity at very high voltages.

### System services

System services refers to our role in carefully managing the balance between the supply and demand of electricity and to keep the frequency at a constant level (50 Hertz). To do this, we have control centres in the Netherlands and in Germany, where supply and demand are monitored and controlled 24 hours a day, seven days a week providing security of supply.

### Market facilitation

In addition, we ensure that European electricity markets are set up in an efficient manner, enabling a liquid market where consumers can rely on security of supply at an affordable price. To this end, we build and operate for instance interconnections (such as NorNed, NordLink, BritNed and the COBRACable), to create possibilities to import and export electricity. We also work together with other European TSOs and electricity markets to guarantee grid reliability and to balance supply and demand across borders and markets.



### Driving the energy transition

The energy system is increasingly dependent on renewable sources. But renewables are, by nature, intermittent – the sun does not always shine and the wind does not always blow. This calls for a change in the system. TenneT, together with its stakeholders, is working to address these challenges, for example with the battery-storage of electricity to safeguard the balance between supply and demand in the future. We build grids that integrate new energy sources and unlock flexibility, both onshore and offshore.

### Our role in Europe

By 2050, Europe aims to become the world's first climate-neutral continent. TenneT, along with European governments and other energy parties, are key to making this ambition a reality. In the transition to a climate-neutral continent, the transition of the electricity system is an important element to ensure that society has a sustainable supply of energy. Governments in the areas we serve have formulated ambitions to support Europe's climate targets, with the German government aiming for climate neutrality in 2045 and the Dutch government in 2050.

As a key player in the energy market, we strive to share our insights to integrate and switch to more renewable energy sources to power society, while aiming to ensure that we are able to keep the lights on at all times. We are making sure that both offshore and onshore electricity can be integrated into the grid properly, for example by reinforcing, renewing and greatly expanding our network. To reach these goals, we launched our Target Grid vision, the picture of our electricity grid, needed to operate a climate-neutral energy system in 2045. More information on this can be found on page 18.

TenneT is one of Europe's largest investors in national and cross-border electricity transmission capacity on land and at sea, bringing together the Northwest European energy markets and efficiently unlocking large-scale renewable electricity sources. We collaborate with a wide range of partners in the energy market to develop and apply new, smart technologies and to contribute to the energy transition in the future.

### Key developments in the environment we operate in

The urgency and complexity of tackling climate change means that TenneT operates in a challenging context that is continuously developing. We see the following developments that affect us:

### Climate change and the energy transition

Climate change is one of the most urgent and complex societal challenges of our times, of which many scientists explain the increased occurrence of weather extremes as being caused by climate change. To mitigate the most adverse impacts of climate change, governments are stepping up their climate ambitions to build a net zero economy by 2050. To accommodate this, we are redesigning the current energy system and how we operate it, planning ahead and building a climate-neutral energy system. Changing weather and climate patterns, such as storms, floods and droughts, can also affect our transmission system, which needs to be more resilient to a variety of different external circumstances.

### Scarcity of resources

A key development and challenge we foresee as we drive the energy transition is the availability of key resources, such as raw materials, manufactured components and qualified staff. In the market, there is an increased demand related to the energy transition, which could lead to a shortage of materials, most notably aluminium, copper and steel, as well as manufactured products, such as components for HVDC (high-voltage direct current) systems. There are some expectations that at the end of this decade, the supply of scarce resources is not able to meet demand. That is why we are investing in long-term contracts with our partners to safeguard our needs for materials. We are also collaborating with them to achieve our circular ambition. As regards the scarcity of human capital, difficulties in the labour market are visible in many more sectors in the recent years. A shortage of available staff at all levels is becoming more challenging, and this has an impact on TenneT as we strive to fulfil our critical investments for the energy transition. In general, scarcity of resources may cause project delays and rising costs and in the broader context sustainability goals.

### Higher costs of materials and energy

In 2023, the economies in the areas we serve and the markets where we procure our goods and services have been affected by rising costs of resources and services. This has a significant effect on the cost of our investment projects. On the wholesale energy market, we faced high electricity prices. In general, high energy prices have an effect on the costs of ancillary services such as redispatch (as we compensate producers of electricity for curtailed generation or infeed) and grid losses.

## Speeding up the demand for capacity leads to congestion

In the Netherlands, the ever-increasing pace of demand for additional transmission and connection capacity is exceeding the speed at which we, and our colleague grid operators, can expand the electricity grid. Although work on the grid is advancing in all regions, the billions of euros in investments we are making, alongside additional measures, are still not enough to meet demand, at such short and often immediate notice. Grid operators signal that the Netherlands is entering the next phase, where access to the electricity grid will come under further pressure leading to pressure on both sustainability goals and economic development. This calls for a serious acceleration of electricity grid expansion. In addition, grid operators and the government are taking additional measures to keep the electricity grid accessible and reliable. Examples include mandating smart charging stations, controllable heat pumps, and mandatorily unloading the grid at peak times. The changing energy system also requires different behaviour from end-users, for example by using the grid more when the supply of energy is high.

Also in Germany, we noticed that due to persistent numerous bottlenecks in the onshore electricity grid, power from large wind farms in the North Sea must increasingly be scaled back. More speed is therefore needed to expand the electricity grid, for example by building electricity highways.

## Our stakeholders

To deliver on our promise and ambitions, we believe that it is essential to work together with stakeholders and through partnerships: we only get there if we all get there. Through our activities as a TSO, we are already continuously interacting with the world around us. Our activities could not take place without the often intensive co-operation with other key players, inside and outside the energy sector. We aim to build and maintain good relationships with our stakeholders and co-operate with them in partnerships to deliver on our strategic objectives.

We determined our stakeholder landscape by identifying the most important stakeholder groups, based on their influence on us and our influence on them. We also engaged with these stakeholder groups to gather their views on the Sustainable Development Goals (SDGs) that relate most to us as an organisation and the topics related to the impact we as TenneT have on the world around us.

To monitor the way we are perceived and how we are performing, we perform a reputation survey among our key stakeholders every two years. The most recent survey was completed in 2022 and resulted in a score of 7.8, which was classified as 'strong' and is higher than the average of companies included in this survey (7.4).

Engaging with our stakeholders is crucial in achieving our strategic goals and serving our role in society. We value the engagement with local communities in our service areas and specifically in the areas where our assets are located, now and in the future. In 2023 we invested in our stakeholder management on regional and local level, as the energy transition starts there.

This will help us to build and maintain the critical infrastructure required to facilitate the energy transition. It remains crucial to engage with local communities, but also with NGOs and politicians at the earliest stage of a project to address their concerns and gain their understanding. As we expand our network, we must do so responsibly, by engaging with them and gaining acceptance with local communities.

### Podcast with stakeholders

We are actively engaged in conversations with stakeholders in our own podcast. You can listen back via [tennet.eu/podcast](https://tennet.eu/podcast) (Dutch) or [tennet-energiedialog.eu](https://tennet-energiedialog.eu) (German).



Dutch

German

## Our strategy

TenneT has a clear purpose: to connect everyone with a brighter energy future. We strive to secure the supply of electricity for the people living in the areas we serve, while enabling the changing energy landscape with all its challenges, day in and day out. The way we achieve this is not driven by just our own views on how to achieve our purpose. We are a key and inter-linked player in the energy landscape, working closely with other important stakeholders to drive the energy transition and ensure a greener and brighter energy future in the best and most efficient manner.

To ensure we are able to fulfil our purpose, we have developed our current TenneT strategy, based on four strategic pillars, with goals for 2025.

This is focused on ensuring we are able to secure supply of electricity today and tomorrow by preparing our grid for a future and climate-neutral energy system, while also maintaining our financial health and considering the care for our current and future employees and others working for and with us.

Our strategy drives us to realise a climate-neutral, affordable and reliable future electricity grid and enables us to act as a key player in Europe's energy transition, contributing to the mitigation of climate change and to the United Nations Sustainable Development Goals.

Our vision for the future electricity grid was launched in 2023. Our Target Grid 2045 strategy sets out how this system will look and which strategic actions are required to get there. Our 2025 strategic goals are our first milestones towards this end-picture. More on Target Grid is included on the next page.

## Strategic goals



### Energise our people and organisation

With an inclusive and safe environment where people enjoy coming to work. We will evolve our leadership model to empower, inspire and create growth opportunities, so everyone can perform at their best and work as one team.

- Provide a great and safe place to work for up to 10,000 internal and external employees striving for Zero Harm.



### 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.

- Deliver at least EUR 10 billion per year in projects while securing our supply chain.
- Secure healthy asset base with sufficient transmission and connection capacity.
- Maintain 99.99% reliability.



### Drive the energy transition

As a green grid operator and thought leader, developing innovative solutions and playing a key role in the energy data world.

- Realise at least 5 significant energy system innovations.
- Deliver robust design Target Grid 2045 including accepted North Sea grid design.



### 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.

- Raise adequate amount of equity to assure our strong credit ratings of at least A3/A-.
- Achieve regulatory returns.
- Reduce the OPEX deficit.



# Listening to our stakeholders

At TenneT, we consider a good relationship and dialogue with our stakeholders to be essential. The energy transition cannot be tackled alone and requires close cooperation. In our reputation survey, we explicitly ask stakeholders every two years how they view us, also to learn from them and to improve ourselves. Stakeholder statements sometimes ask for this as well. Here are a few statements stakeholders made about TenneT in 2023.



**Councillor Alexander Sprong (Almere) after announcements that the grid congestion affects the development of the city for a longer period.**

**“We are shocked and full of disbelief. The city is disproportionately affected by this situation. New businesses or companies that move, can already no longer be connected to the electricity grid. And now that residential construction is also affected, Almere has a very big problem. This is an unacceptable situation.”**

#### **Our response**

It is a difficult situation that congestion arises and businesses and homes have to wait longer for a grid connection. At the moment, this is the inconvenient truth. We are doing everything possible to keep as many parties connected as possible, even with unorthodox measures. This also requires cooperation with local stakeholders, for example so that the infrastructure can be built more quickly and users can avoid the electricity grid at busy times. A national action programme has also been created for this purpose. We will stay in close dialogue with local stakeholders to work on this.

**More information in our chapter ‘Deliver a high security of supply’**





**Mayor of Hanseatic City of Lübeck is concerned about the development of new 380 kV overhead line.**



**“We support the objective of distributing electricity generated from renewable sources, but when it comes to building the necessary infrastructure, local concerns must not be ignored. We are extremely concerned that the planned 380 kV overhead line will significantly impair these visual axes and thus severely disrupt the visual integrity of the World Heritage Site.”**

#### **Our response**

When preparing new infrastructure, we deal with many stakeholders in the area where new infrastructure is to be built. This often raises questions about whether the link is necessary and why it should be built here. We understand these questions. We carefully prepare the expansion of infrastructure and analyse all possibilities. TenneT spends a lot of time and attention considering the usefulness and necessity of new connections and also the spatial integration, which we aim to do in dialogue with local stakeholders. In 2023, we held more than 1,500 meetings with stakeholders, including residents, municipalities and provinces.

**More information in our chapter ‘Ensure critical infrastructure for society’**



#### **Stakeholder in our Reputation Survey.**

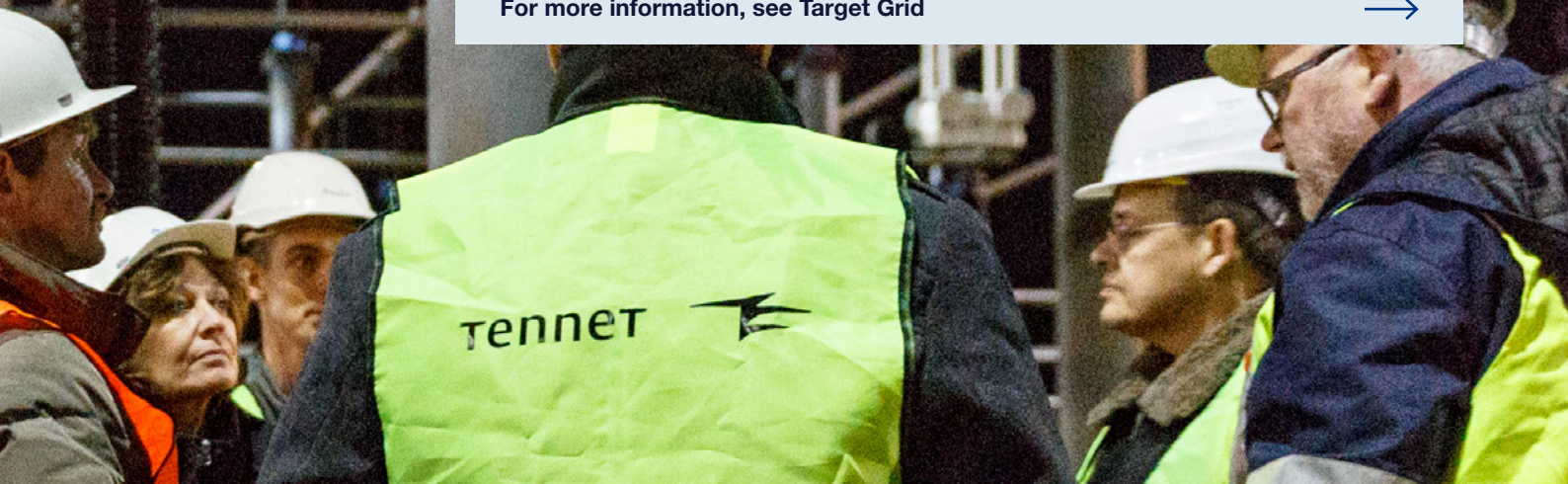


**“I find TenneT less transparent when drawing up infrastructural explorations: the fundamental assumptions in the scenarios are made too much in the ivory tower. Stakeholders are not properly involved in the future planning process. Not only TenneT, but this applies to the entire TSO and DSO sector.”**

#### **Our response**

TenneT likes to look far ahead because our projects have a long lead time. For this, we have several studies we are working on. We also see that the future is not always easy to predict. Stakeholder input is also increasingly important here. That is why we launched Target Grid in 2023, in which (in dialogue with stakeholders) we develop the final picture for our grid to be realised by 2045. And based on this final picture, we are already starting preparations and involving stakeholders closely in this process.

**For more information, see Target Grid**





# Target Grid 2045

The Target Grid 2045 maps out a future, integrated offshore and onshore grid that is capable of meeting society's growing electricity demand, ensuring that the high-voltage grid grows in step with the realisation of a more sustainable electricity system. Target Grid is our strategy to ensure our grid is ready in time to serve a climate-neutral energy system based on electricity from renewable sources for all.

The goals are clear and sharp: the European Union wants to be the first climate-neutral continent in 2050. Germany aims to be ready even earlier, in 2045. By 2030, the EU demands 55% lower CO<sub>2</sub> emissions. This may sound like a long way away, but when it comes to building high-voltage connections, 2050 is like next month, 2040 next week, and 2030 tomorrow.

The essence of Target Grid is to look further ahead and to prepare for this. By using a backcasting approach, we focus on the actions and steps needed to achieve our vision of the future grid. This long-range view offers a number of advantages:

It increases the chance of being able to realise future projects on time, as we can initiate the most time-consuming preparation steps (for instance spatial planning procedures) before the necessity of a project is formally established.



It enables TenneT to build in a more future-proof manner, by aligning with expected national plans for development beyond the vision period of our usual investment planning

It helps us clearly identify the expected impact on the network of certain long-term political choices, allowing us to engage with society about these choices early.

To get a concrete picture of what is required to achieve our Target Grid, we assume the highest degree of electrification in the energy system. After all, it is better to prepare for the highest electricity demand and possibly have to scale down later, than to prepare for too little and have to scale up later (with a higher probability of being too late).

The first version of Target Grid 2045, presented in April 2023, looked at the 220/380 kV alternating current (AC) grid and the direct current (DC) connections needed to unlock wind farms in the North Sea. Based on the insights from this first version, a vision map was developed of what the Dutch and German electricity grids might look like in 2045, the 'Target Grid Map'. This served as a starting point for a public discussion on the envisioned AC and DC grid expansions and the underlying choices.

The Target Grid Map includes the existing grid, plus the projects we include in our Dutch Investment Plan (IP) and projects that are part of the German Netzentwicklungsplan (NEP). Specifically, it emerged that early consideration should be given to large-scale electricity corridors both on land and at sea and connected via hubs to each other and neighbouring countries.

Currently, TenneT is further developing the Target Grid 2045 strategy to ensure the potential benefits of this forward-looking mode of operation can be realised in practice. Target Grid is a dynamic strategy, which is described in a living document. A more detailed elaboration of the future picture - incorporating more technical, operational and market-design aspects and also adding the 110/150 kV grid sections - will be included in updated versions of Target Grid.

Up-to-date information on Target Grid can be found on: [www.tennet.eu/target-grid](http://www.tennet.eu/target-grid)

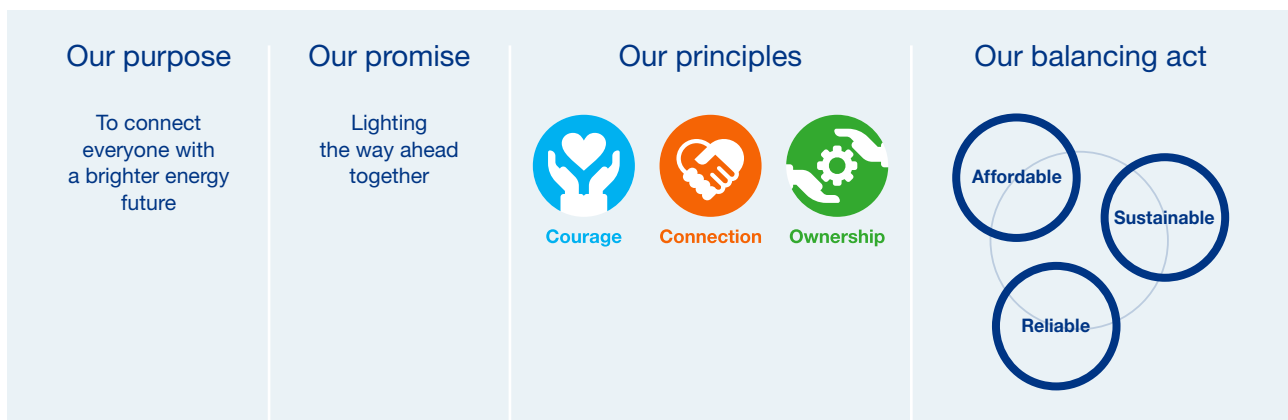
## How we bring our strategy to life

In translating our strategy to policies and the decisions and actions that help us achieve our ambitions, we have careful considerations. We consider what we call the three elements of 'the balancing act'. With this, we evaluate the effect of our decisions on reliability, sustainability and affordability. An example of the balancing act is when we are planning and designing new projects to expand or reinforce the electricity grid to ensure a secure supply of electricity, now and in the future.

We make use of raw materials, such as copper and mineral oil, as these are critical to the functioning of our assets and as such, the reliability of our grid.

As these are also naturally scarce resources that come with a negative environmental impact, we aim to increase our circular use of these products. We aim to make more sustainable choices by looking for alternatives, such as aluminium instead of copper. The qualities of resources differ, which can affect their performance in our network. This can make the choice to switch materials more challenging. And at the same time, we also take into account the costs associated with these choices, as a choice that benefits reliability or sustainability might also come with a cost. We strive to find the right balance between all three elements.

## Our purpose, promise and principles



The way all our employees are expected to act in achieving our strategic goals is described in our TenneT principles, which provides guidance to how we aim to create societal value.

- **Ownership.** We are accountable for our words, actions and decisions.
- **Connection.** The energy transition is a challenge that requires new ideas, new technologies and new behaviours that build on the strong foundations we have laid. It also requires co-operation on all different levels as we do not have all the answers ourselves. This is why we work actively with other parties.
- **Courage.** We are honest, open and clear about what we think. We dare to make bold decisions, take ambitious initiatives and are willing to learn from our mistakes.

# Stakeholders



Employees



NGOs



Governments and policy-makers



Customers



Suppliers



Regulators



Shareholders and capital providers



Energy market participants

# Our inputs



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



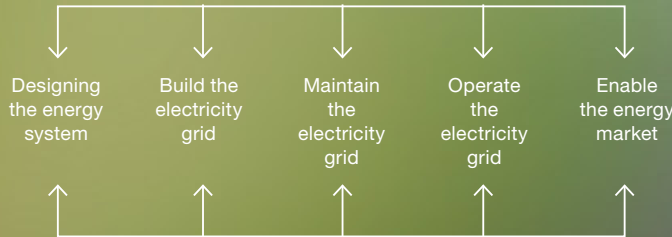
Strategic partnerships and our engagement with (project) stakeholders

# How we create value

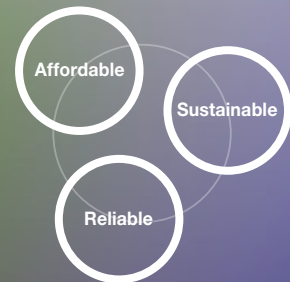
## Our strategy



## How we operate Enable the core activities



## Our balancing act



## Our purpose

# To connect everyone with a brighter energy future

# Our outputs



Deliver a high security of supply, see page 30



Ensure critical infrastructure for society, see page 38



Create a safe and inspiring workplace, see page 49



Create value to transition to a climate neutral economy, see page 56



Safeguard sustainable financial performance, see page 67



Solve societal challenges with stakeholders and through partnerships

# Outcome & Impact



- 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



- Societal impact due to availability of our grid



- Avoided CO<sub>2</sub> emissions





## How we create value

TenneT plays an important role within the electricity supply chain and supports and enables the livelihoods of people in the areas we serve. The way we create value is represented visually on the previous page, using the concept of value creation as described by the International Integrated Reporting Council (IIRC), which together with the Sustainability Accounting Standards Board (SASB) formed the Value Reporting Foundation.

By means of the six capitals defined by this framework (financial, manufactured, intellectual, human, social & relationship and natural) we describe our input, output, outcome and impact. This model is the basis of our Integrated Annual Report. As a company that is deeply rooted in society, the engagement and interdependencies with our stakeholders are at the basis of how we are able to create value. In addition, our inputs, through which we create impact for society, are influenced by the way we add value through our strategy and organisation, driven by our purpose and our principles. All of these have been described earlier in this chapter. Moreover, while conducting our core activities as a TSO, our decisions are always influenced by the balancing act of reliability, affordability and sustainability.

More information on the specific inputs, our related outputs, outcomes and impacts are disclosed in 'Our performance in 2023', in each of the respective chapters. The way we aim to create long-term value is defined alongside the six outputs from our value creation model, which is described in the visual on the previous page.

### **Deliver a high security of supply**

Our core task is to secure the supply of electricity, today and tomorrow. And with this, we support the daily lives and activities of people and businesses in the areas we serve. In today's fast changing and more volatile energy system, securing supply is increasingly challenging. TenneT aims to create value for society through its decades of experience in operating our grid, together with a vision of how the future grid and electricity markets should be designed. This expertise and knowledge are our intellectual capital.

### **Ensure critical infrastructure for society**

Electricity plays a vital role in the lives of our stakeholders and society as a whole. TenneT designs, builds and maintains the high-voltage onshore and offshore grid that is needed to secure supply of electricity. Our produced capital relates to the components of our grid, such as our cables, substations, pylons and interconnectors. We realise the critical infrastructure that supports today's electricity needs as well as enabling the energy system of the future.

### **Create a safe and inspiring workplace**

We consider our people to be our most important asset, as they enable us to deliver on our strategic ambitions and create value for society. To this end, we aim to offer a safe, sustainable and inclusive place to work for all our employees. Our programmes and actions focus on creating an inclusive and energising environment where people can thrive.

### **Create value to transition to a climate-neutral economy**

As a company at the centre of the energy sector, we want to drive the energy transition and contribute to achieving the climate targets of the Netherlands, Germany and the European Union. We do this by contributing to a sustainable energy system, where we are able to connect everyone in our service area to green electricity. Simultaneously, we strive to reduce the environmental impact of our operations. This is related to our carbon emissions, our impact on the natural environment and the materials we need to build, operate and maintain our grid.

### **Safeguard sustainable financial performance**

In order to create long-term value, we are focused on maintaining our financial health. Our main sources of financing are our regulatory revenue and externally raised capital. To safeguard our financial health, we aim to optimise our financing costs and deliver a return on capital that meets the expectations of our capital providers. In addition it is essential to maintain strong credit and environmental, social and governance (ESG) ratings.

## Connectivity table

Capital	Strategic pillar	Chapter	Topics in materiality matrix	Key KPI's	Performance		Targets	SDG
					2023	2022		
	Overarching 	Page 2	<ul style="list-style-type: none"> <li>Stakeholder engagement</li> <li>Compliance</li> </ul>	<ul style="list-style-type: none"> <li>Internal engagement index</li> <li>Reputation survey</li> </ul>	<b>80*</b> <b>7.8**</b>	80* 7.8	- -	
 	 Energise our people and organisation	Page 47	<ul style="list-style-type: none"> <li>Creating a sustainable workplace</li> <li>Safety</li> </ul>	<ul style="list-style-type: none"> <li>Absentee rate</li> <li>% female inflow</li> <li>% non-Dutch / non-German inflow</li> <li>Total Recordable Incident Rate</li> </ul>	<b>NL 3.9</b> <b>DE 3.4</b> <b>32%</b> <b>11%</b> <b>4.5</b>	NL 3.7 DE 4.1 33% 9% 4.9	- 30% 10% 4.3	 
 	 Secure supply today and tomorrow	Page 28 Page 24	<ul style="list-style-type: none"> <li>Secure supply today and tomorrow</li> <li>Responsible supply chain practices</li> <li>(Cyber) security</li> <li>Connectivity of our grid</li> </ul>	<ul style="list-style-type: none"> <li>Grid availability</li> <li>Investments</li> </ul>	<b>99.99993%</b> <b>7.7 bln</b>	99.99963% 4.5 bln	99.99962% 6.3 bln	 
 	 Drive the energy transition	Page 36 Page 54 Page 72	<ul style="list-style-type: none"> <li>TenneT's own environmental impact</li> <li>Stakeholder engagement</li> <li>Strategic partnerships</li> <li>Driving the energy transition</li> </ul>	<ul style="list-style-type: none"> <li>CO<sub>2</sub> footprint greened</li> <li>Offshore grid connection capacity</li> </ul>	<b>33%</b> <b>12.2 GW</b>	35% 9.9 GW	- 11.5 GW by 2023 43.1 GW by ~2030	    
	 Safeguard our financial health	Page 65	<ul style="list-style-type: none"> <li>Financial health</li> </ul>	<ul style="list-style-type: none"> <li>Adjusted underlying EBIT***</li> <li>ROIC ***</li> <li>Adjusted FFO/Net debt ***</li> </ul>	<b>1,709 mio</b> <b>5.8%</b> <b>11.6%</b>	1,162 mio 4.9% 11.1%	1,386 mio 4.2% 8.5%	

\* The latest employee survey was performed in 2021. In 2023, we decided to update the way we monitor this and will report accordingly in our next annual report.

\*\* Our reputation survey is executed every 2 years. The most recent survey was performed in 2022.

\*\*\* Reference is made to the chapter 'Safeguard sustainable financial performance'.

### **Solve societal challenges with stakeholders and through partnerships**

We are convinced that collaboration with stakeholders and strong partnerships with suppliers, customers and other parties are essential to building the future energy system and securing supply today and tomorrow. By combining experience and knowledge from different organisations inside and outside the energy sector, we achieve our strategic objectives.

More information regarding our societal impacts can be found in the section 'Sustainable Development Goals and TenneT' and in the chapters 'Deliver a high security of supply', 'Create value to transition to a climate-neutral economy' and 'Safeguard sustainable financial performance'.

### **How we create and measure societal impact**

The combination of the results of our activities based on (amongst others) our strategy, how we operate and our principles (our outputs) also enables us to create short, medium and long-term societal effects (our outcomes and impacts). Our aim is to reduce our negative and increase our positive outputs, outcomes and impact, such as reducing our own carbon footprint and helping to increase avoided emissions by connecting more and more renewable energy sources to our grid. With the role and scale we have as a company, we are aware that we are able to create

these societal impacts, both negative and positive. We believe that these impacts are not the result of one output or capital and therefore choose to connect them to all and to the sustainable development goals we contribute the most to. We feel that these are our most material societal impacts to report on.

Disclosing an organisation's impacts is a relatively new area of reporting. Measuring these impacts is therefore a journey, and we continue to refine our methodology. Insights gained with respect to these impacts help us see the extent to which we are meeting our strategic goals and the extent to which we are able to fulfil our purpose to connect everyone with a brighter energy future. Reporting on the equivalent number of households that in theory can receive 100% green electricity as a consequence of our work provides us with this information.

Our aim is to disclose the outcomes and impacts which we create on a societal level as a European TSO. This provides insights from a broader perspective on how the people living in the areas we serve experience the positive or negative impact we create and have on them. By focusing on these impacts, we believe that we provide more meaningful insights for stakeholders. All of our impact indicators are also included in [The Sustainable Development Goals](#) section in this report.

## The supply chain of TenneT

Our core task is to provide a secure supply of electricity to the more than 43 million end-users in our service area. This task should not be viewed in isolation, as it is part of a wider logistics system with other stakeholders that contribute to the electricity system. Our supply chain entails all parties that are, either upstream or downstream, involved in the supply, manufacturing, construction or deconstruction of materials and products used for our grid. It also includes parties that are, either on the demand or the supply side, involved with the production, exchange or consumption of electricity. In the visual below, our main supply chain partners are represented.

With our work, we have an inevitable impact on the natural environment and stakeholders in our supply chain. For example, the safety of our contractors and subcontractors is affected by the way we manage safety and depends on the quality of our safety procedures. And with the construction of new assets, nitrogen is emitted which impacts nature and local communities. As a result, TenneT, its suppliers and its contractors are impacted by the nitrogen impasse that occurred in the past year in the Netherlands. Due to project delays, end-users cannot always be connected to the grid in the time they prefer. These impacts on the supply chain are part of our responsibility too.

As an example, a part of our supply chain includes the contractors working on grid construction or maintenance projects in the Netherlands and Germany. Another significant group are the suppliers involved with manufacturing important components for our grid, such as transformers. These suppliers are often located outside the Netherlands and Germany, such as Spain, Turkey, Singapore or India. These companies also subcontract local partners, who in turn may hire other contractors or suppliers. This is what we refer to as tier-2 or tier-3 contractors and suppliers.

Considering the speed and magnitude of the energy transition, and the challenges in achieving a future-proof electricity grid in time, it is essential that we work closely together with our supply chain partners. Moreover, due to the shortage of resources (such as technical talent, raw materials and components) it is important that we build long-lasting relationships with suppliers. This helps us to secure our supply chain needs, now and in the future, to achieve our strategic goals. It also provides our suppliers with the security to plan ahead and efficiently prepare for the future, for example by recruiting enough new talents in time.

We believe that solid and sustainable relationships with our supply chain partners, built on trust and co-operation, are essential to achieve the energy transition. This is why we have been working for several years with the integrated Supply Chain Management (iSCM) programme. This aims to reduce the supply chain risks, such as potential shortages in availability of resources and price volatility. By building long-term partnerships with our main suppliers, we can work together and plan ahead, learn from each other and improve processes.

It is also important to work together with our partners to ensure and contribute to responsible supply chain practices. We do not want any of our suppliers to be involved, directly or indirectly, in conduct that does not meet our policies and quality standards. This can relate to product specifications and sustainability-related topics, such as environmental performance or human rights. As part of our due diligence process, we visit suppliers to challenge them on these topics and discuss potential improvements in the ways they manage them. It is our policy not to accept suppliers who fail to meet our standards.

In 2023, we performed 34 supplier visits. 28 suppliers met our standards, or were given the opportunity to take corrective actions to meet our standards. 4 suppliers were not approved and 2 suppliers are still awaiting the results of our visit.

### **2GW Program: balancing between sustainability, reliability and affordability**

An example of how we cooperate with our supply chain partners is the 2GW Program, in which we work together closely with a selected group of suppliers and contractors on a number of different projects. For TenneT, working on the energy transition means finding a balance between sustainability, reliability and affordability.

The transition to a climate-neutral energy system requires substantial adjustments and expansion of the grid. With innovative solutions, TenneT is looking for the most optimal way to tackle this. With the 2GW Program we are opening up the North Sea as an energy source by means of an offshore electricity grid. Our new approach will allow more electricity to be transported to land simultaneously. This can be done by designing smarter and using fewer cables and platforms than before. This will save us time, raw materials and money. The 2GW Program forms the basis for next-generation offshore grid connection systems. For more information, please go to '[Ensure a critical infrastructure for society](#)'.





# Human rights at TenneT

Responsible supply chain practices include all social and environmental impacts throughout our supply chain. Human rights are a part of this, and a key focus area of TenneT's CSR strategy. Considering that our construction sites and supply chain are globalised, we consider this an essential part of our sustainability strategy. In 2023, we further developed this as part of the social pillar of our sustainability strategy.

*"Our human rights commitment: Respect and promote human rights by delivering on our strategic roadmap for our own operations and that of our extended supply chain whilst collaborating across sectors to drive positive change."*

After publishing a Human Rights Commitment in 2022, subscribing to international guidelines such as the 'OECD Guidelines for Multinational Enterprises' and the 'UN Guiding Principles on Business and Human Rights', we followed through with more actions in 2023. We completed a country level risk assessment of our supply chain identifying the impact our supply chain has on the rights of people. To confirm the risks, we engaged with stakeholders (including our value chain workers) through engagement lunches and audits in selected high-risk locations. The findings were integrated into our human rights roadmap and strategy. With this roadmap, we elucidate the steps TenneT will take to execute a robust due diligence process. As due diligence is an ongoing process, we strive to update our commitment and roadmap based on the experience and learnings.

The most salient human rights, i.e. the set of rights that we impact the most, relate to human rights in the supply chain, with our contractors and suppliers. Labour rights, including forced labour, decent wages, collective bargaining, occupational health and safety, working hours and social rights are among the most salient rights for TenneT.

To mitigate our negative impact on these rights, we have included a set of requirements to our suppliers and contractors which includes setting up a robust due diligence process, tracking and monitoring and stakeholder engagement. Our 2GW Program is an example of where we implemented these requirements with respect to human rights. To achieve progress, working together with others is an important way of addressing potential human rights concerns in partnerships or coalitions. Another way of how we aim to achieve progress is, working together with others is an important way of addressing potential human rights concerns in partnerships or coalitions. It is also our aim to develop these partnerships as a measure to mitigate risks and increase our leverage to push for remedies when an impact occurs.

As part of our due diligence, we have integrated the topic of human rights in our [Supplier Code of Conduct](#) and made it part of our supplier visits (see section 'TenneT & its supply chain'). Our grievance mechanism, referred to as the Speak Up Portal, is publicly available in three languages (Dutch, German and English). The grievances are followed up by our Compliance & Integrity department. In line with supply chain legislation (Lieferkettenschutzgesetz or 'LkSG') in Germany, we have an appointed Human Rights Officer who monitors our impact on human rights.

In 2023, there were no human rights violations reported.

## TenneT in the supply chain

### Raw material extraction and production of materials

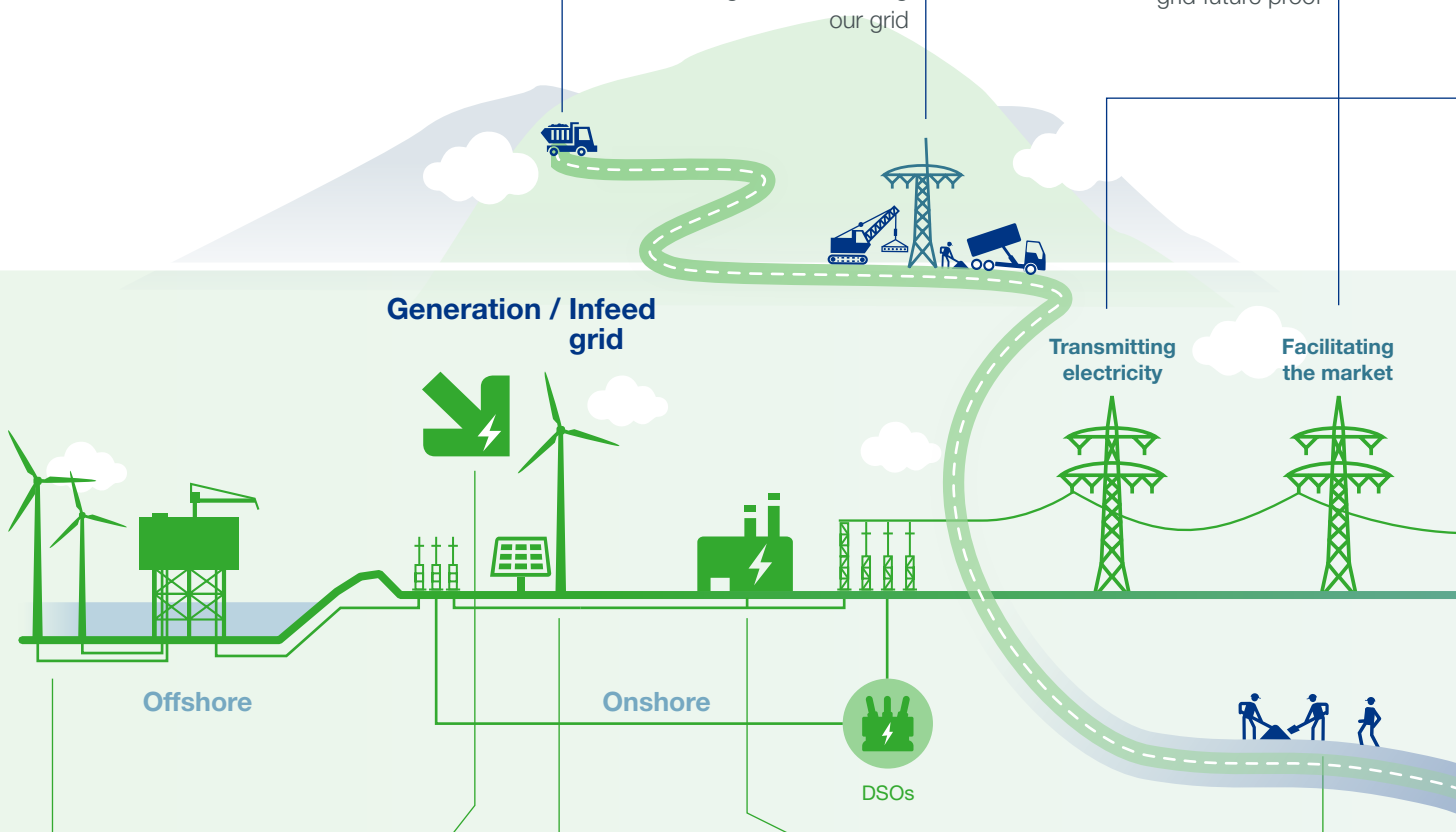
Finding sufficient and the right resources remains a challenge, to deliver a greener energy system and in a way where we reduce our impact on the planet

### Construction

Safety is very important when working with heavy machinery and high voltage equipment when building and maintaining our grid

### Our core activities

By creating efficient markets that support our task to transmit electricity to our customers, we aim to make our grid future proof



Offshore

Onshore

DSOs

### Renewables

More offshore wind farms are connected to our grid

### Renewables

Onshore, we aim to create more capacity to enable more renewables to be connected directly to our grid, DSOs or new technologies that enable flexible solutions

### Powerplants

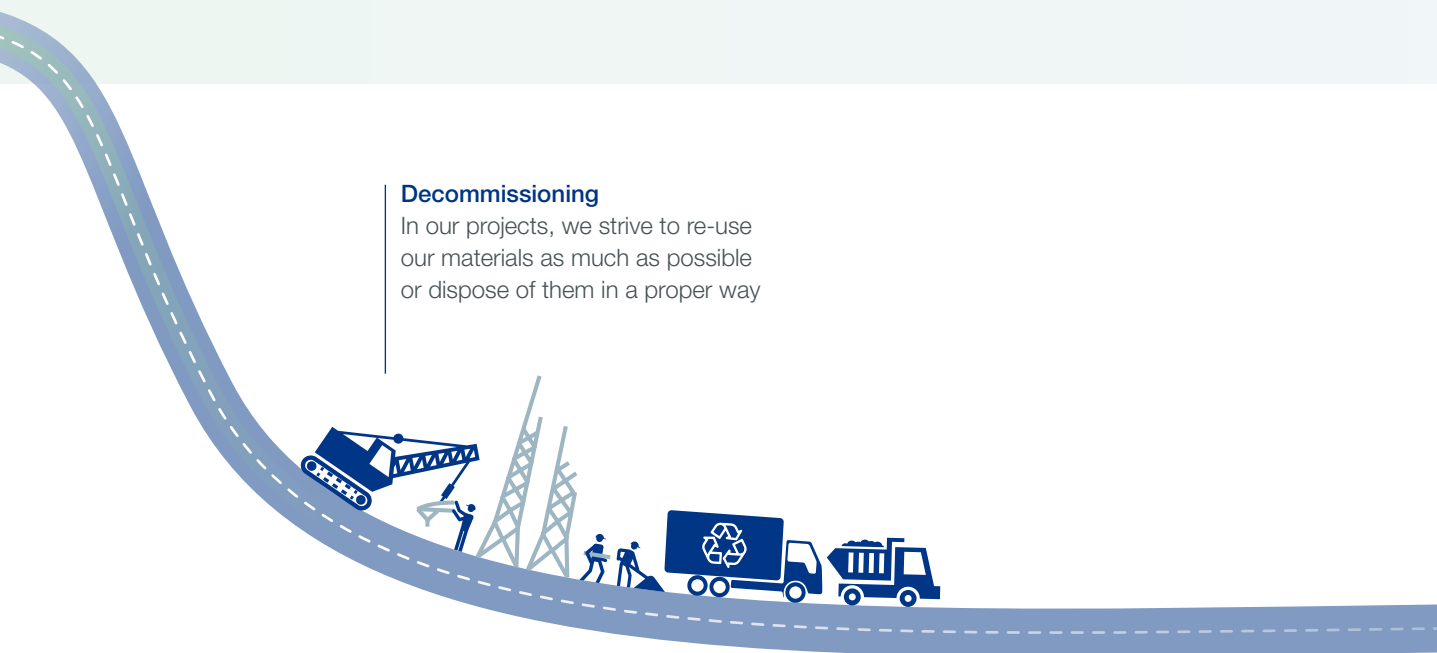
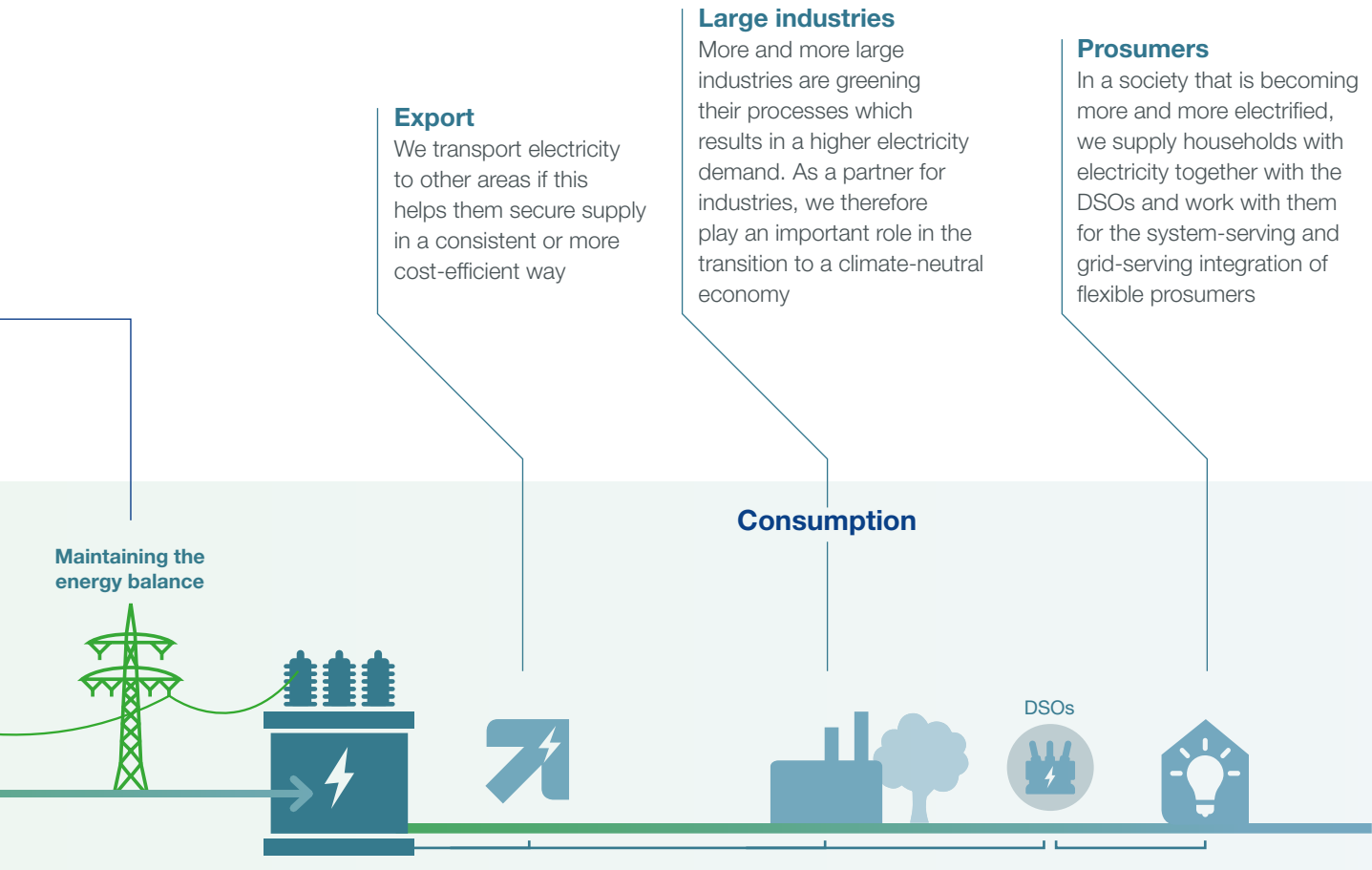
Conventional power plants are still in the mix, but are increasingly being phased out by governments

### Import

We import electricity to balance our grid which can also save societal costs

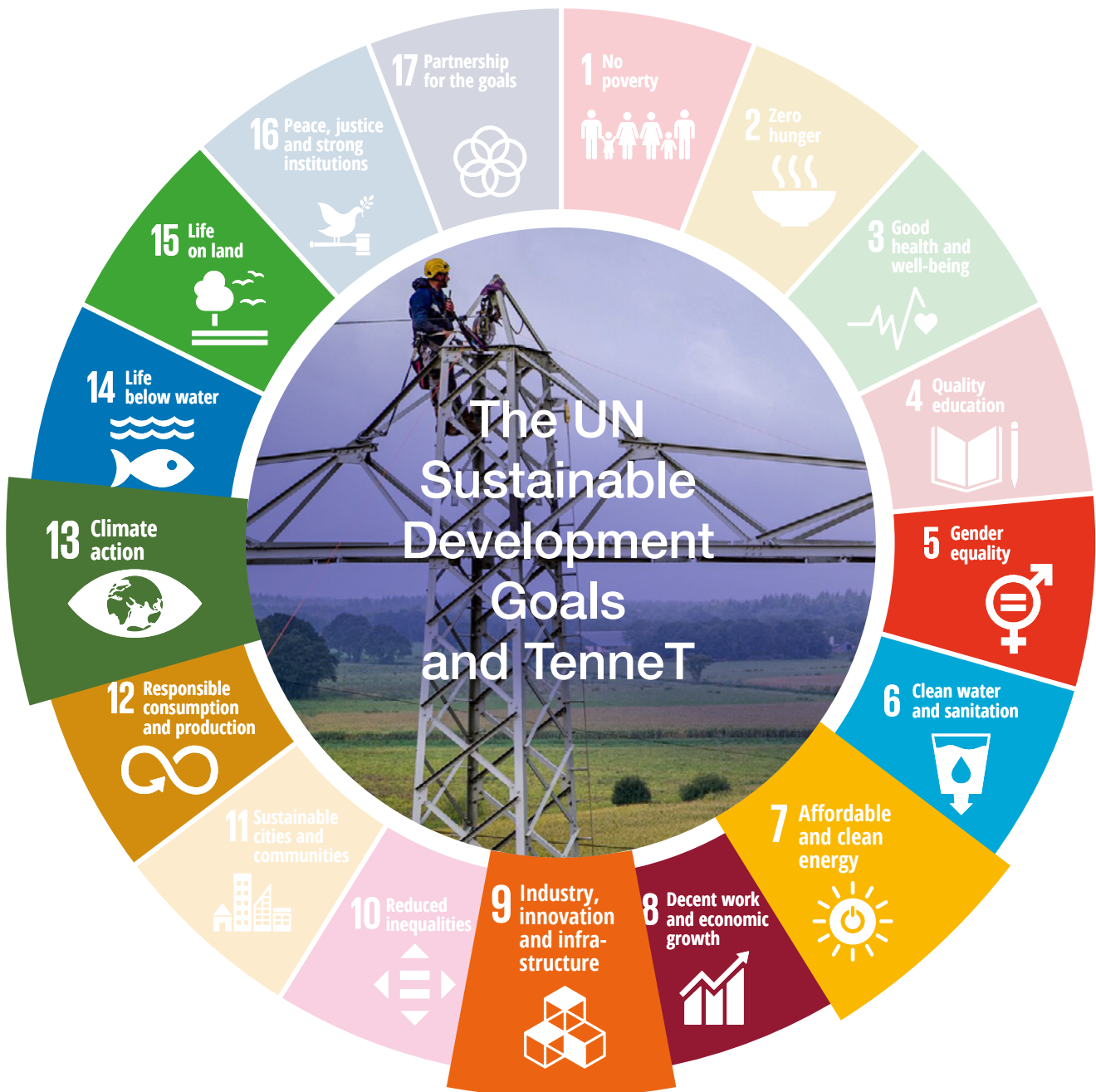
### Recruitment and retention of employees

To achieve our strategic objectives we need to hire and retain the right and sufficient employees. At the same time, our supply chain partners also need sufficient personnel to help us deliver on the energy transition.



# The Sustainable Development Goals

The Sustainable Development Goals (SDGs) are a set of 17 global objectives established by the United Nations to tackle pressing issues by 2030. They encompass diverse challenges, from poverty eradication and quality education to climate action and gender equality. They serve as a universal roadmap for governments, businesses, and communities to work together, promoting sustainability, equality, and a better future for all. TenneT wholeheartedly supports all global goals, while – considering our main business – we are specifically committed to three main SDGs.







## Ensure access to affordable, reliable, sustainable and modern energy for all

- 7.1 By 2030, ensure universal access to affordable, reliable and modern energy services
- 7.2 By 2030, increase substantially the share of renewable energy in the global energy mix

Given our core activities, SDG 7 is where we can have a profound influence. For target 7.1, we have developed an impact indicator that quantifies the financial impact we have on the average electricity bill of households in the Netherlands and Germany. For target 7.2, we track our impact by measuring the gigawatts of renewable energy connected to our grid. Our efforts are evident in the offshore wind capacity connected, aligning with the renewable energy ambitions of the governments in our service areas.

Target	KPI	Contribution	
		2023	2022
7.1	Societal financial impact on households in our serving area	<b>DE: 4.3%</b> <b>NL: 8.7%</b>	DE: 4.8% NL: 9.1%
7.2	Equivalent number of households that in theory would have been able to receive 100% green electricity	<b>14.3 million</b>	14.1 million



## Build a resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation

- 9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all.

SDG 9 (and specifically target 9.1) is another key area where our operations make a substantial contribution. Our impact is measured through an indicator of how the availability of our grid has a quantifiable value for society (through electricity delivered). Additionally, our role in creating interconnections—17 to date—facilitates efficient electricity trade, ultimately lowering costs for end-users. This fosters market development and aligns with the goal of building resilient infrastructure and promoting inclusive and sustainable industrialisation and innovation.

Target	KPI	Contribution	
		2023	2022
9.1	Societal value of the availability of our grid	<b>&gt; GDP of the Netherlands</b>	> GDP of the Netherlands



## Climate action

- 13.2.2 Integrate climate change measures into national policies, strategies and planning

Current predictions indicate that governments and organisations need to step up to help mitigate the effects of climate change to meet the 1.5 degrees scenario from the Paris Agreement. As a cross-border TSO and a key player in the energy transition, we can help mitigate the effects of climate change by contributing to a climate neutral future energy system. That is why we have identified SDG 13 'Climate Action' as the main sustainability objective we contribute to. At the same time, our business choices and conduct also impact the planet. This is why we measure our greenhouse gas emissions (GHG) against Science Based Targets Initiative-approved targets. Next to this, we also report the amount of avoided emissions, which due to our activities, we have been able to avoid on an annual basis. This is how we measure our positive and negative contribution regarding SDG target 13.2.2.

Target	KPI	Contribution	
		2023	2022
13.2.2	Total greenhouse gas emissions (gross)	<b>3,293,444 tonnes CO<sub>2</sub></b>	2,547,312 tonnes CO <sub>2</sub>
7.2	Total avoided emissions	<b>18.0 mio tonnes</b>	17.2 mio tonnes



### Other SDGs

In the execution of our activities, we also have an impact on other SDGs. We contribute to SDG 5 and SDG 8 when we look at policies relating to our people (including our contractors) and SDG 12, SDG 14 and SDG 15, with respect to the choices we make that affect our planet. SDG 12 for instance, relates to our circularity ambitions, which also has an effect on climate change. Reducing the use of virgin materials, such as copper, will also have a positive climate effect, as it avoids emissions in the extraction phase. That is why we track several KPIs related to the targets supporting these goals, but the effect on these other SDGs is less significant than the ones related to the SDGs above.

Target	KPI	Contribution	
		2023	2022
5.5	% of female board members	<b>45.5%</b>	55.6%
8.8	Total Recordable Injury Rate	<b>4.5</b>	4.9
12.2	% circular inflow * % circular outflow *	<b>36%</b> <b>75-90%</b>	
14.2/ 15.4	Net zero impact on nature	<b>T.B.D.</b>	

\* In 2023, we developed a new methodology for measuring our contribution to circularity.