

OUR MISSION?



FUTURE!

SUSTAINABILITY REPORT 2022

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DEAR READERS,

Amprion connects climate protection with grid stability. This mandate has gained even more urgency as a result of the energy crisis. We are making a contribution to the sustainable energy system of tomorrow by expanding the grid as quickly as possible and integrating innovative technologies.

Sustainability is central to our strategic direction – a common thread running through every aspect of our business activities. Our sustainability strategy defines goals for five fields of action. Amongst other things, we have made important progress in connecting offshore wind farms, financing and reducing emissions. Last summer, for example, we completed the first construction phase of our connection projects on Norderney. We issued our first Green Bond very successfully on the capital market. In addition, we continued to develop our climate strategy: having already adopted CO₂ reduction paths for emissions from our own sources (Scope 1) and from purchased energy (Scope 2) in 2022, we took the next step this year by also setting a reduction target for emissions in the upstream value chain (Scope 3) by 2032. These climate targets are the benchmark we want to be measured against. That’s why we defined them in line with the requirements of the internationally recognised Science Based Target initiative (SBTi). This May, we officially submitted the targets to SBTi for validation.

Our second comprehensive Sustainability Report provides information on these and other measures – from new HV equipment in the transmission grid through flowering meadows in the vicinity of our substations to advice for employees on childcare and nursing issues.

I would also expressly like to take this opportunity to thank our staff for their commitment. Their expertise and motivation make me optimistic that we can meet the challenges ahead of us effectively on the way to a sustainable energy system.

Dr Hans-Jürgen Brick

Chief Commercial Officer (CCO) and
Chief Executive Officer (CEO)



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Combining security of supply and climate protection

Gas shortages, rising prices, stretch-out operation: the repercussions of the Ukraine war posed enormous challenges for the energy sector in 2022. We spoke to Andreas Kuhlmann, Chief Executive of the German Energy Agency (dena), and Dr Hendrik Neumann, Chief Technical Officer (CTO) at Amprion, about their joint supply security and climate protection efforts.



WHAT IS YOUR PERSONAL VERDICT FOLLOWING A YEAR DOMINATED BY CRISES?

ANDREAS KUHLMANN The year 2022 showed us how fragile peace, security and prosperity can be. Yet there were also some encouraging signals: we realised just what Germany is capable of achieving if it has to.

DR HENDRIK NEUMANN Especially where the energy crisis is concerned, we proved that we can act together fast in the short term. Looking back at the last winter, we were all very apprehensive in view of the exceptional situation. But we did our homework and refined our processes, so that system security was never seriously jeopardised.

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IS THE ENERGY CRISIS AN INHIBITOR OR A CATALYST ON THE PATH TO ENERGY TRANSITION?

AK Whether the crisis turns out to be a permanent catalyst remains to be seen. Much will depend on whether the pace we've set so far becomes the norm. That's all the more important when it comes to de-carbonisation, which entails radical changes.

HN From my point of view, the crisis was a trigger to mobilise energies and take bold action. The introduction of fast-track approval procedures is a good case in point here. Ultranet, for example – our connection between North Rhine-Westphalia and Baden-Württemberg – can be commissioned a year earlier than planned.

AK To my mind, irrespective of the last twelve months, Germany remains one of the most exciting energy transition labs in the world. We have so many players here – and so many innovative approaches and concepts – that can serve as a global model. We need to give more space to the ideas that form. We Germans still tend to get very much lost in details.

“Whether the crisis turns out to be a permanent catalyst remains to be seen. Much will depend on whether the pace we've set so far becomes the norm.”

ANDREAS KUHLMANN
Chief Executive of the German Energy Agency (dena)

TO ENSURE SECURITY OF SUPPLY IN GERMANY, MORE ELECTRICITY HAD TO BE GENERATED USING COAL IN 2022. DOES THIS MEAN THAT ENERGY SECURITY AND CLIMATE PROTECTION ARE IRRECONCILABLE?

HN No, definitely not. Measures like the return of coal-fired power plants to the market were necessary for system security during the winter. That doesn't mean climate protection targets have changed, though. Germany wants to phase out coal by 2030 at the latest. Amprion's 10-point plan sets out what's needed to get there – not simply technology-wise but also in terms of regulatory requirements.

AK The decision to focus on energy security was taken under pressure to defuse the crisis. It's now time to subject the choices made to careful scrutiny, also with a view to climate protection. Was everything we did during the crisis absolutely essential?



More on Amprion's 10-point plan for decarbonisation by 2030 on our website amprion.net/Netzjournal (German only).

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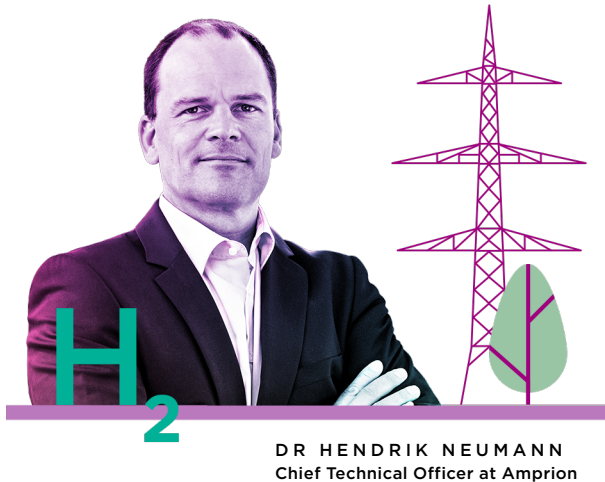
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What measures can we scale back again? And how can the switch to renewable energy sources succeed in the long term?

HN The transformation to a climate-neutral energy system is the ultimate common goal. If we're going to complete it successfully, we need to change the market design, amongst other things. We demonstrated what this could look like in practice with our concept for a "Systemmarkt". It's vital that we come up with an adequate replacement for conventional power plants - and reconcile energy security with climate protection.



DR HENDRIK NEUMANN
Chief Technical Officer at Amprion

More on Amprion's Systemmarkt at systemmarkt.net (German only).

WHAT COULD BE EUROPE'S CONTRIBUTION TO ENERGY SECURITY?

AK One of Europe's core tasks is to provide sufficient secured power and suitable infrastructure as renewable energies become increasingly integrated. However, European coordination is a must not only for electricity but also for gases such as hydrogen or its derivatives.

HN The European interconnected grid is the backbone of energy security. But there are risks here too, of course. The non-availability of French nuclear power plants last winter is a prime example. That's why it's imperative that we always keep these risks in mind. Our dedicated analysis for the winter and the subsequent monitoring programme are only two of the steps we took to ensure this.

AK The pathway to a European energy system is further complicated by the umpteen regulatory hurdles. Although these are gradually being removed now, if you start off slowly, there's more speed needing to be picked up along the way.

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INFORMATION**LET'S TURN OUR ATTENTION TO GERMANY AGAIN.
WHAT EXACTLY DOES THE TRANSFORMATION OF
THE ENERGY SYSTEM INVOLVE?**

HN The energy system is undergoing a profound transformation. This has to do with the integration of renewable energies: electricity will have to be transported over ever longer distances. Just think of the 70 GW of offshore wind energy in 2045. The feed-in is highly volatile, which is why we need maximum flexibility in the energy system.

AK Decentralised power generation in particular requires better interaction between individual players. For example, that means not only transmission grids but also distribution grids have to be rapidly expanded. This is the only way that the energy transition will actually engage citizens – for instance, when it comes to connecting the growing number of photovoltaic systems, heat pumps and electric cars.

HN As a transmission system operator, we too have to take account of these changes because they make our business more complex. We work closely with our partners in the distribution grids for this reason, although that doesn't alter our mandate to guarantee the stability of the overall system.

“It's been a challenging year but we were able, yet again, to justify our role as 'trusted adviser' to the federal government. The candid, constructive dialogue was genuinely enriching – and that's what makes me so optimistic.”

DR HENDRIK NEUMANN

**WHAT MAKES YOU SO OPTIMISTIC THAT
THE ENERGY TRANSITION WILL SUCCEED?**

HN I'd especially like to emphasise the good cooperation between all stakeholders. It's been a challenging year but we were able, yet again, to justify our role as “trusted adviser” to the federal government. The candid, constructive dialogue was genuinely enriching – and that's what makes me so optimistic.

AK I can confirm the new political momentum. I can also see an extensive network of start-ups and young people addressing these issues with incredible commitment. And more and more of them are making the design element the status quo. It's an extremely welcome development.

HN I can see and feel this will to shape things every single day at Amprion. We have a dedicated and highly motivated team who are keen to play a part in the transformation of the energy system with innovative measures and actions.

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Money for the energy transition

Massive investments are needed to make Germany and Europe climate-neutral. Sustainable finance is the answer here because it ensures that funds are channelled into sustainable projects. The role of sustainable finance in the transformation of the economy and in Amprion's business is at the centre of

3

questions to ...



Alexandra Themistocli
Head of Sustainability at SEB in Germany

&

Patrick Wang
Head of Investor Relations at Amprion



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Europe intends to become climate-neutral by 2050 - a project that will require huge financial resources. How can sustainable finance help here?

ALEXANDRA THEMISTOCLI

The past year in particular has shown that we need far more wind and solar energy plus the infrastructure to transport it. Substantial investments will be necessary - with huge potential for sustainable finance. I'm glad that politicians have come to this same recognition. The EU's revised Renewable Energy Directive will open up new opportunities for funding. The European Central Bank is also providing fresh impetus by focusing more on sustainable enterprises.

What opportunities does sustainable finance offer for Amprion?

PATRICK WANG

Our business model paves the way for the energy system to decarbonise. Sustainable finance will make sure that money is used for precisely that purpose. With advantages for Amprion projects as well as for investors. Sustainable investments are not only good for energy transition; there are interest benefits too. Sustainable is the new normal - and it's an idea that's also gaining ground in the capital market.

What are the principal requirements for enterprises when it comes to sustainable finance?

AT The step into the green capital market is not something we can take for granted. Sustainability needs to be approached strategically and with strong motivation: companies must identify the key issues and translate the strategy into concrete, science-based targets such as those defined by the Science Based Targets Initiative. At the same time, questions of responsibility need to be clarified, for example the involvement of different departments and the incentives for the Management Board. This strategic foundation is decisive for establishing a Green Finance Framework - a set of rules for issuing sustainable financial products.

What ultimately persuaded Amprion to issue its own sustainable financial products?

PW Sustainable finance is an opportunity for us to meet the rapidly growing need for investments. The massive demand for our first Green Bond confirms this. The bond is one example of how we tie financing to sustainability aspects - today and in the future. We established the basis for this with the Green Finance Framework, which is the outcome of intensive engagement with our business - and close collaboration with external partners. It's a starting point for us to further expand our involvement in the capital market and to anchor sustainability as a principle in our financing strategy.



[You can read up on Amprion's Green Finance Framework at amprion.net](https://www.amprion.net)

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“The step into the green capital market is not something we can take for granted. Sustainability needs to be approached strategically and with strong motivation.”

ALEXANDRA THEMISTOCLI

How can investors be sure that companies really are investing their money sustainably?

AT The EU Taxonomy provides guidance here: it defines which business activities are considered sustainable – an important prerequisite for green investments. When we issue a Green Bond, the projects the money will be allocated to must be clearly spelled out. My experience shows that the so-called “purpose of capital” – in other words, what their investments will actually do – is equally relevant. Enterprises must communicate this transparently.

What happens to the money that’s invested in Green Bonds?

PW Our Green Finance Framework defines which projects the money should go to, for instance our offshore connections in the North Sea. It also takes account of the criteria laid down in the EU Taxonomy. In practice, this means that all investments make a verifiable contribution to the success of the energy transition. Our Green Finance Report, which will be published for the first time in summer 2023, will create transparency here. In future, it will also show the exact impact associated with every investment.

“Sustainable Finance is an opportunity for us to meet the rapidly growing need for investments.”

PATRICK WANG



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Tailwind for a new mission

The world of energy is changing – and so is Amprion’s mission. Offshore development is just one example here. We spoke to Peter Barth, Managing Director of Amprion Offshore GmbH, about the importance of offshore wind power for Amprion and its employees.

STARTING IN 2028, AMPRION WILL BRING WIND POWER ONSHORE – AN IMPORTANT STEP ON THE PATH TO CLIMATE NEUTRALITY. HOW AWARE ARE YOU AND YOUR EMPLOYEES OF THE PROJECTS’ IMMENSE SIGNIFICANCE?

Every megawatt-hour from renewable energies reduces our dependence on fossil fuels. We’re currently planning and building four offshore connections that will hopefully make a decisive contribution here. The significance of these projects motivates us tremendously – not least because Amprion’s efforts towards a climate-neutral energy system are backed up by real conviction. Where energy transition is concerned, our employees are determined to make a difference. This attitude is clearly noticeable in their daily work.



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INFORMATION**FOLLOWING THE GROUNDBREAKING CEREMONY, THE CONSTRUCTION PHASE FOR THE FIRST TWO OFFSHORE CONNECTION SYSTEMS BEGAN LAST SUMMER ON NORDERNEY. WHAT'S YOUR VERDICT SO FAR?**

We've finally got going on the practical side. After three years of intensive preparations, it was a very special moment – particularly for our colleagues on-site. It's also thanks to them that the first construction phase was so successful – and of course, even the weather was in our favour. We managed to get the work done in the summer without any major interruptions due to rain or storms. We were really lucky in that respect. There are only a few weeks a year when building activities are permitted: in spring the birds are nesting and in the autumn storms render such work impossible. Precise planning is therefore paramount.

YOU WORK WHERE OTHERS SPEND THEIR HOLIDAY: HOW COMPATIBLE WERE THE CONSTRUCTION MEASURES WITH THE HOLIDAY PERIOD?

Once again, precise planning was key. The formal procedure was completed early on, which meant we were able to prepare the site already in winter. A significant part of the material was consequently transported there outside the main tourist season. The upshot was less noise nuisance to summer tourists and more time available for the actual building work. This was

the first time we've ever managed to drill four boreholes in the space of a year. The result was less overall impact on the island and real added value for people, animals and the environment.

THE WORK IS BEING CARRIED OUT IN A NATURE RESERVE. HOW DO YOU TAKE THIS INTO ACCOUNT ON THE CONSTRUCTION SITE?

We're working in a unique national park. We're aware of this and we proceed as carefully as possible. First and foremost, the short construction time window protects the flora and fauna. As far as the actual building work is concerned, we follow the zero discharge principle: nothing is released into the environment that doesn't belong there. A ten-metre-high noise barrier helps reduce the noise from the drill. We use minimally invasive methods to do the drilling. We also offset the impacts elsewhere – in this case by renaturing a 19-hectare salt marsh in the Norderland.



“Every megawatt-hour from renewable energies reduces our dependence on fossil fuels. We're currently planning and building four offshore connections that will hopefully make a decisive contribution here.”

PETER BARTH
Managing Director of Amprion Offshore GmbH

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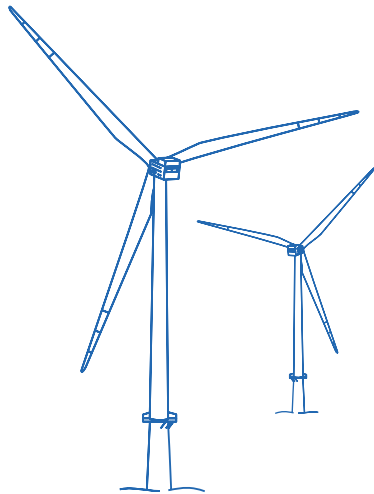
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“We’re working in a unique national park. We’re aware of this and we proceed as carefully as possible.”



AND WHAT ABOUT ACCEPTANCE FOR THE PROJECT AMONG LOCAL PEOPLE?

It’s a special situation on Norderney. Our projects impact not only on the interests of residents but also on those of anyone who holidays on the island. We took this into account in our local communication strategy by inviting holidaymakers to our informational events. We explained who we are, why the pipelines are necessary and how we carry out the work. Acceptance is generally high – not least thanks to our proactive, early communication on the spot.

WHAT DOES THE FUTURE HAVE IN STORE FOR YOU AND YOUR TEAM?

Our work certainly won’t get any less. That doesn’t deter us, though. We’ve already achieved a lot in the past. We started out with a small team just under four years ago. Today, there are more than 200 people working for Amprion’s offshore subsidiary. Their know-how and commitment will be crucial when we start building the converter platforms out at sea in the middle of the decade. It will all happen very fast then. More platforms and offshore pipelines will follow – and projects will often run concurrently. We’re on the lookout for more motivated individuals who’d like to make a contribution to the energy system of tomorrow.



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GRI 2-1, GRI 2-6, GRI 203-1, GRI 203-2

SUSTAINABILITY AT AMPRION

Acting responsibly requires target-oriented planning. This applies not only to the safe operation, expansion and upgrading of the grid but also to our commitment to people, the environment and society. We bundle our sustainability activities into five central fields of action. They stand for our holistic approach - and at the same time define the content framework of our Sustainability Report. One focus here is on climate protection: based on our climate strategy, we have set ourselves ambitious targets for reducing greenhouse gas emissions.

AMPRION - A BRIEF OVERVIEW

Amprion GmbH, headquartered in Dortmund, is an important transmission system operator (TSO) in Germany and Europe. Our 11,000-kilometre extra-high-voltage grid transports electricity across an area extending from Lower Saxony to the Alps. Around a third of Germany's economic output is generated in this region. Our power lines are lifelines of society: they secure jobs and quality of life for 29 million people. More than 2,300 employees in Dortmund and at over 30 other sites help to make sure that the lights never go out.

The core remit of Amprion's activities is to operate the transmission grid in its control area safely and reliably and to expand it in line with requirements. This means that we bear an enormous responsibility for the German economy and the people who live and work in the area covered by our grid. The security, safety and stability of our grid are, and will always remain, the guiding principles of our actions. To meet the growing demands regarding transmission capacity and flexibility in future, we are working intensively to integrate innovative technologies into our grid. We are also preparing the way for a climate-neutral energy system: by expanding our grid, we are ensuring that electricity generated by wind and sun can get safely and reliably to where it is needed. We also perform overarching tasks for integrated grid systems in Germany and Europe.

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THE AMPRION GRID

11,000

kilometres is the length of our transmission grid. It transports electricity across an area extending from Lower Saxony to the Alps.

29

million people live in our grid area. Around a third of Germany's economic output is generated in this region.

22

billion euros is the amount we will be investing in restructuring the energy system between 2023 and 2027.

3,513

million euros - our revenues in 2022.

2,300

employees help to keep the lights on. They work in Dortmund and more than 30 other sites throughout the grid area.



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Amprion makes a significant contribution towards building a climate-neutral energy system. In dialogue with politics and partners, we are developing long-term solutions to combine climate protection with grid stability – and at the same time to facilitate decarbonisation of the energy system. In this way, Amprion is creating added value for society and acting for the good of present and future generations. This contribution shapes our understanding of sustainability.

[GRI 2-22](#), [GRI 3-1](#), [GRI 3-2](#)

AMPRION'S SUSTAINABILITY STRATEGY

Sustainability is an integral part of Amprion's strategy and is being driven forward by the Management Board. Embodying and promoting responsibility, shaping the energy system of tomorrow: this is the key objective we are pursuing with our sustainability strategy. All company departments have participated in developing this strategy. The basis was a comprehensive analysis carried out in 2020 of Amprion's impact on people, the environment and society along with the relevance of potential sustainability issues to business. The expectations of the relevant stakeholder groups were also taken into account in the evaluation. The result was a comprehensive mapping of the sustainability context and the issues of relevance to Amprion, which were subsequently submitted to the Management Board for approval: 16 key sustainability issues, which we have divided into five fields of action (see chart on the right). These continue to form the basis of our sustainability management programme as well as the foundation for our reporting. The

methodology of the analysis is described in detail in our [Sustainability Report 2020](#). In order to take into account future requirements, including those arising from the Corporate Sustainability Reporting Directive (CSRD), major changes to our Materiality Analysis are planned for 2023.

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AMPRION'S CLIMATE STRATEGY

Amprion first developed a climate strategy in 2021 – and has been developing it continuously ever since (see also [Our climate targets until 2032](#)). It is the result of a company-wide task force. The establishment of climate targets was preceded by an analysis and quantification of past, present and expected future greenhouse gas emissions. We initially only considered direct emissions caused by Amprion's activities (Scope 1) as well as indirect emissions from the use of purchased energy (Scope 2). In 2022, we extended the analysis to include emissions attributable to upstream activities (Scope 3). The following reduction targets were set by Amprion on this basis:

- Scope 1 and 2: We are aiming to reduce our direct and (energy-related) indirect greenhouse gas emissions (Scope 1 and 2) by at least 63 per cent by 2032 compared to the baseline year 2017.
- Scope 3: We want to reduce the greenhouse gas intensity of our upstream activities (Scope 3) by 58.1 per cent by 2032 compared to the baseline year 2021 – referred to the length of routes expanded and renewed in Amprion's transmission grid.

Our emission reduction targets are based on the assumption that our business will grow significantly in the coming years. At the same time, these targets remain subject to uncertainties, for example regarding the use of future technologies such as those for sulphur hexafluoride (SF₆) gases. We evaluate the targets regularly against this background.

Our climate targets are in line with the requirements of the Science Based Target initiative (SBTi). In this way, we want to align our business activities with the 1.5°C target of the Paris Agreement on climate change. In mid-May 2023, Amprion officially submitted the targets to SBTi for validation.

AN EYE ON CLIMATE RISKS

The climate and temperature changes that are already noticeable today could have far-reaching consequences for the future fail-safe operation of the transmission grid and hence influence security of supply. Amprion therefore examines the economic and grid-related impacts of climatic changes on existing and future grid infrastructure within the framework of an annual workshop. We do this on the basis of selected emissions scenarios of the United Nations Intergovernmental Panel on Climate Change (IPCC).



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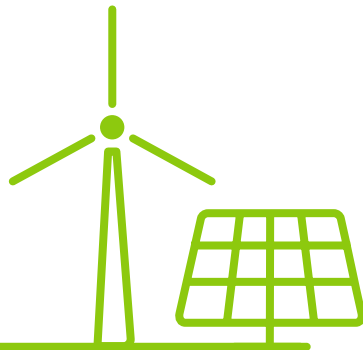
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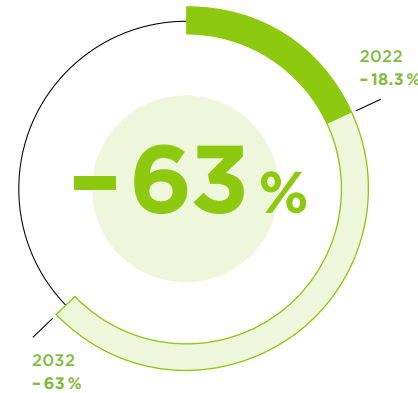
OUR CLIMATE TARGETS UNTIL 2032

In the fight against global warming, the EU wants to become climate-neutral by 2050 - and Germany as early as 2045. Amprion's contribution to achieving this is twofold: on the one hand, we enable renewable energies to be integrated into the electricity system by continuing to develop the grid infrastructure. On the other hand, we are working to reduce greenhouse gas emissions, both by our own company and along the value chain.



For more information on trends in greenhouse gas emissions as well as carbon mitigation measures, see section on [Resource efficiency and climate protection at the company](#).

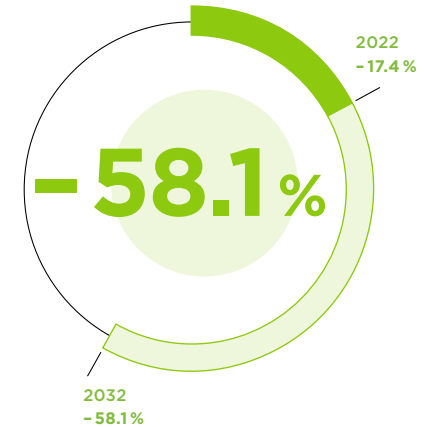
Reduction in absolute Scope 1 & 2 emissions compared to 2017



The planned reduction is mainly related to so-called grid losses - the biggest source of emissions at Amprion and part of **Scope 2 emissions**. Grid losses inevitably occur whenever electricity is transported. Transmission system operators have to compensate for these losses by buying electricity according to the current electricity mix. However, the latter is improving as the share of climate-friendly wind and solar power increases. Emissions due to grid losses are simultaneously decreasing. Amprion is contributing to this by expanding and upgrading the grid infrastructure, paving the way for the integration of renewable energies.

Measures to reduce SF₆ losses, the addition of electric cars to the vehicle fleet and climate-friendly solutions for heating and ventilation play an important role in reducing **Scope 1 emissions** (see also [Reduction of operational emissions](#)).

Reduction in the greenhouse gas intensity of upstream Scope 3 emissions¹ compared to 2021, based on the length of power lines expanded and upgraded annually



The development of **Scope 3 emissions** is directly related to grid expansion. Since energy-intensive materials such as steel are needed for this purpose, absolute Scope 3 emissions will increase in the next few years. At the same time, Amprion's grid expansion will enable the integration of renewable energies, leading to a more climate-friendly electricity mix. To take this interactions adequately into account, Amprion has set itself an intensity target for Scope 3 emissions, based on the length of power lines that are expanded and upgraded annually in Amprion's transmission grid.

Carbon mitigation measures in the supply chain shall also contribute to achieve the target. Therefore, a detailed monitoring system for the greenhouse gas emissions caused by our suppliers is set up. Furthermore, we have plans to include emissions as a criterion in the utility value analysis, which we use to evaluate our suppliers.

¹ Comprises emission categories 1 to 7 according to the Greenhouse Gas Protocol. Downstream emissions are not relevant to Amprion's business.

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DIALOGUE WITH OUR STAKEHOLDERS

Amprion is operating in a truly diverse field of interest. That's why maintaining a continuous dialogue with our stakeholders is so important. Our aim is to begin by listening to all stakeholders. We took the opinions of our stakeholders into account when defining the key issues.

We attach particular importance to exchanges with citizens, NGOs, environmental associations and other representatives of civil society. Against the backdrop of grid expansion, it is vital to generate broad acceptance for our projects (see also [Dialogue with relevant stakeholders](#)). At the same time, we consider our customers' needs. For example, we support industry in its efforts to decarbonise production processes. We also involve our employees in Sustainability Management activities on the way to achieving our goals. As a regulated company, we attach great importance not least to dialogue with politicians and public authorities at EU, federal and state level (see also [Dialogue with politicians](#)).

In order to establish transparency and consistency in the dialogue with our stakeholders, we have defined clear responsibilities for communication with the respective stakeholder groups and laid down company-wide principles for dealing with them. Both of these will be incorporated into our in-house "Stakeholder Management Guideline", which we will finalise in the course of 2023. The idea is to act more consistently towards our stakeholder groups and align our actions more strongly to our corporate strategy.



Dr Hendrik Neumann (center), Chief Technical Officer, and Peter Barth, Managing Director of Amprion Offshore GmbH (first from left), exchanging with our stakeholders.



**DEPENDABLE. FAIR.
HONEST.**

"We walk the talk. This dependability is the foundation on which we build connections with our partners. (...) We communicate openly and honestly. And we work together with others to find the best solution."

Amprion's brand manifesto

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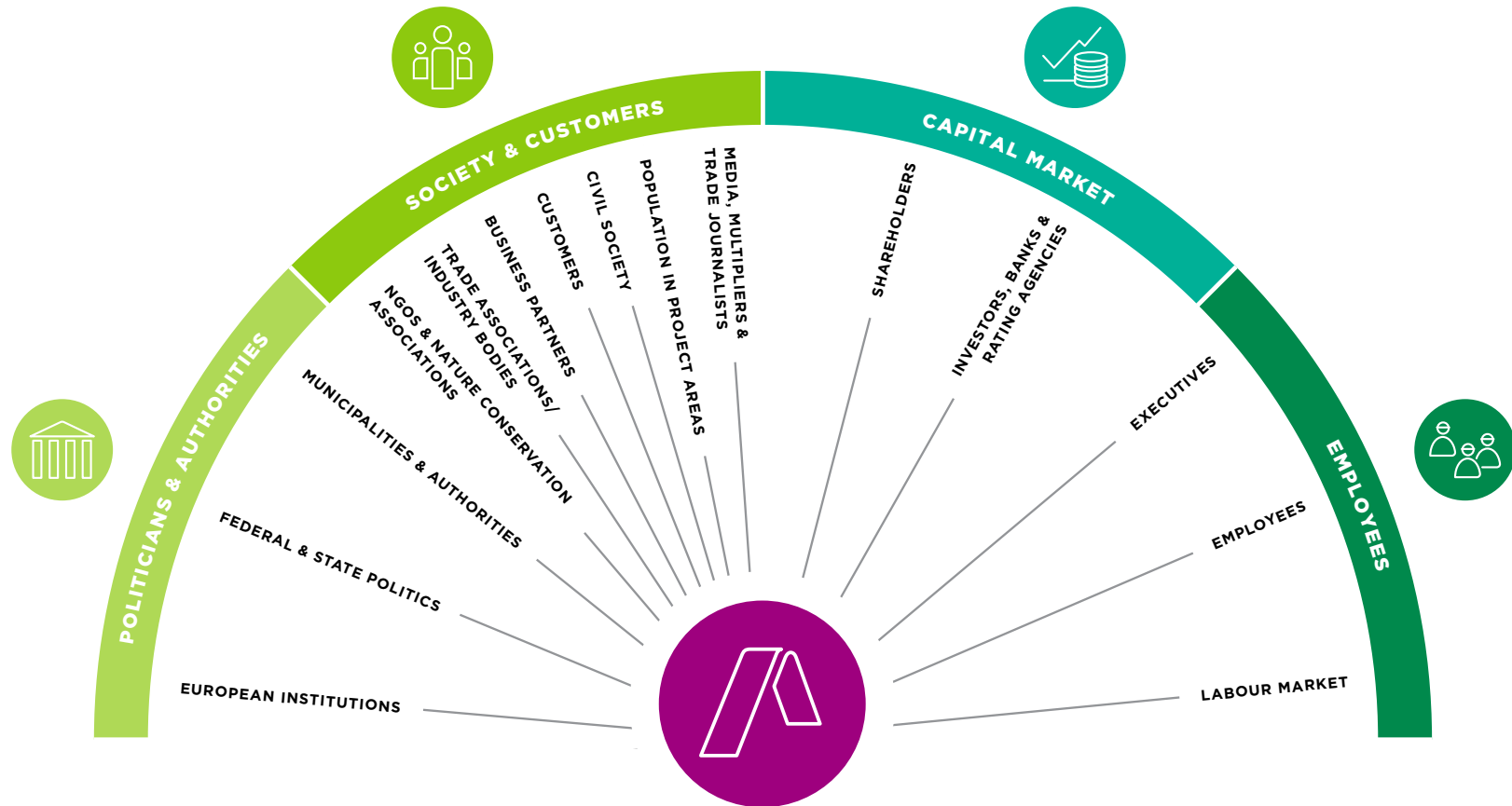
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**STAKEHOLDERS IN THE
AREA OF SUSTAINABILITY**

Stakeholder dialogue also plays a central role in Sustainability Management. For Amprion, dialogue with four specific groups is key: civil society and customers, politicians and authorities, our employees and the international capital market. This was revealed in an analysis carried out by the Sustainability Steering Committee in 2020.



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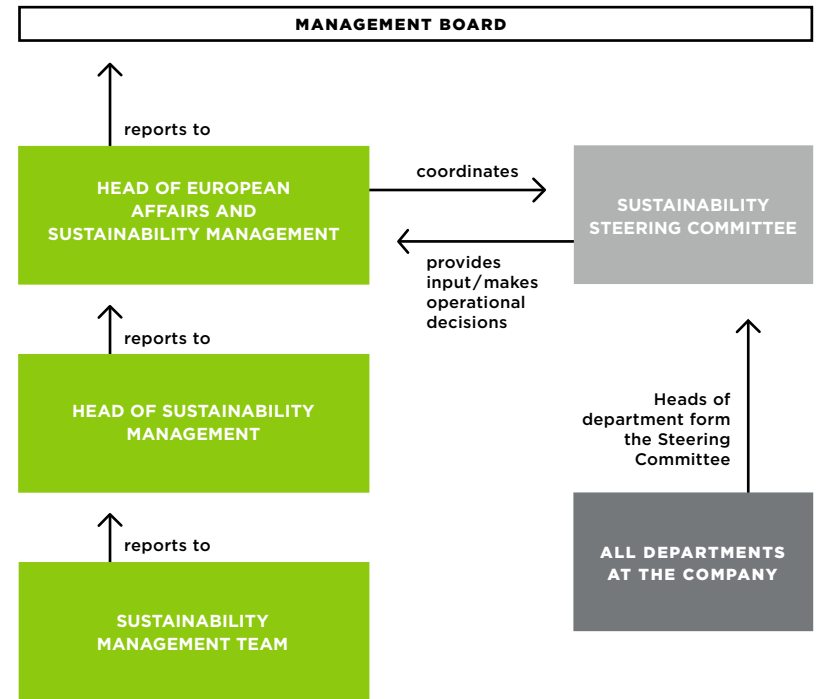
[GRI 2-9](#), [GRI 2-12](#), [GRI 2-13](#), [GRI 2-17](#)

SUSTAINABILITY ORGANISATION AT AMPRION

Amprion is paving the way for a climate-neutral energy system that ensures the highest possible level of system security. This mandate is directly linked to a sustainable business model. Sustainability is anchored in fixed structures at Amprion for this reason. The Management Board bears responsibility for the company’s sustainable orientation. It defines strategic priorities and also adopted the Sustainability Strategy 2020. The Management Board is monitored and supervised by the Supervisory Board – also regarding the achievement of selected Sustainable Development Goals. Specialist departments are involved in Sustainability Management via the Sustainability Steering Committee, which is made up of senior executives from the Amprion departments concerned. It takes operational decisions and contributes relevant information to Sustainability Management.

The Steering Committee is coordinated by the Head of European Affairs and Sustainability Management, who is also a member of the committee and reports directly to the Management Board. Its duties include keeping the Management Board constantly informed about current developments and requirements in relation to sustainability and submitting the Sustainability Report to the Management Board for approval with the involvement of the Chairman of the Supervisory Board. The Head of European Affairs and Sustainability Management simultaneously heads the Sustainability Management Team, which was set up in 2022. The team created additional capacity for Amprion’s sustainability organisation, enabling the diverse challenges to be met as effectively as possible.

ORGANISATIONAL STRUCTURE OF OUR SUSTAINABILITY MANAGEMENT SYSTEM



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Amongst other things, the team is working to coordinate goals and measures in the five fields of action, measure their success and ensure transparency in the context of regular reporting. They also keep an eye on current developments and legislation, so that external requirements – for example, related to transparency – can be implemented by our company from an early stage. The team interacts closely with all specialist departments with a view to communicating Amprion’s sustainable orientation and making it visible throughout the company.



Amprion’s Sustainability Management Team, headed by Matthias Dürr (fourth from right).

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Sustainability aspects are also becoming increasingly important in the context of financing and reporting. The EU Taxonomy – a classification system to identify environmentally sustainable economic activities – plays a central role here. In future, companies covered by the Taxonomy will be obliged to assess and disclose the extent to which their economic activities make a substantial contribution to at least one of the EU's climate and environmental objectives, while at the same time not significantly harming any of these objectives and meeting minimum social safeguards. Even though Amprion is not currently covered by the regulation, we are already aligning our business accordingly. By integrating renewable energies and expanding the grid as a condition of decarbonising the energy systems, we want to contribute to the EU's environmental objectives from a climate protection perspective as well as through climate change mitigation and adaptation. We take care to minimise negative impacts on other goals here, especially biodiversity conservation.

Sustainability is also anchored in our financing strategy. Amprion plans to invest around 22 billion euros in restructuring the energy system between 2023 and 2027. We are combining the long-term planning necessary to achieve this with solid, secure and – not least – sustainable financing. Amprion's [Green Finance Framework](#) was developed in 2022 in this connection. It defines clear rules, for example on the appropriate use of funds from financial products such as Green Bonds or green promissory notes. In doing so, it is consistent with recognised principles such as the 2021 ICMA as well as the 2021 APLMA, LMA and LSTA Green Loan Principles (GLP), while also taking account of the EU Taxonomy criteria. The Framework's credibility and effectiveness has also received external confirmation in a second-party opinion according to the [Green Bond Principles \(GBP\)](#).

The Green Finance Framework forms the basis for our first green dual-tranche bond, which we placed on the international capital market in 2022 with a total volume of 1,800 million euros. The net proceeds will be used exclusively to finance or re-finance projects that drive the transition to a net zero carbon, ecologically sustainable society. The Green Finance Committee ensures that these proceeds are utilised in accordance with the criteria of the Green Finance Framework. Starting in 2023, Amprion will prepare an annual "Green Finance Investor Report", which will provide information on the use of financial resources and the environmental impact of projects. The processes for internal management and allocation of the proceeds will be reviewed as part of an external audit.

RECOGNISED BY ESG RATINGS

Amprion's sustainability performance has been rewarded with several positive ESG ratings. The most recent example is the result of our rating from Sustainable Fitch in May 2023. On a scale from 1 to 5, we were assigned an Entity Rating of "2" in the corporate assessment, for our Green Finance Framework as well as for our green dual-tranche bond. Amprion has also been included in the list of "2023 Top-Rated ESG Companies" by Sustainalytics, a rating agency specialising in sustainability. In the utilities sector, Amprion now ranks 3rd out of 292 companies currently rated worldwide. Our present ESG risk rating is "12.1 - low risk".

For more information, see [sustainalytics.com](https://www.sustainalytics.com) and [Fitch Rating](#)

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SUSTAINABILITY PROGRAMME - AN OVERVIEW

We have formulated the strategic focus as well as operational goals and measures for each field of action in our sustainability strategy. All Amprion departments throughout the company are working to implement them. The various chapters of this Sustainability Report as well as the following overview describe the progress we have made to date. We orientate our activities and performance in line with suitable indicators. We identified these for each field of action in 2020 in collaboration with all of our specialist departments. On this basis, we set up processes to continuously collect and review this data.

Our sustainability programme also underlines our commitment to sustainable development. In 2020, therefore, we aligned our key issues with the United Nations' 17 Sustainable Development Goals (SDGs). We reviewed how our business activities can contribute to achieving certain SDGs by boosting positive impacts and reducing adverse ones. To do this, we analysed all 169 sub-goals of the SDGs and concluded that we are in a position to influence five SDGs.

Field of action: Corporate governance

| | Strategic focus | Operational goals & measures | Status quo | Details of status quo | SDGs |
|------------|---|---|------------|---|------|
| COMPLIANCE | We are constantly developing our compliance management system based on the IDW PS 980 audit. | | → | <ul style="list-style-type: none"> - Basic compliance training conducted for all existing employees in 2021 - Basic compliance training conducted for all new employees in 2022 - Compliance management system developed further in connection with the implementation of the German Supply Chain Due Diligence Act (LkSG) | N/A |
| | When it comes to procurement, we ensure that suppliers and service providers act responsibly. They must commit to compliance with respect to occupational health and safety and environmental protection as well as legally and ethically impeccable conduct. | <p>Include environmental protection in the utility value analysis</p> <p>By 2020, review whether, and if so which, measures are necessary to implement the requirements of the National Action Plan for Business and Human Rights</p> | → | <ul style="list-style-type: none"> - Inclusion of environmental protection in the utility value analysis scheduled during the first half of 2023 - Measures for compliance with LkSG reviewed | N/A |

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Field of action: Secure power system



| | Strategic focus | Operational goals & measures | Status quo | Details of status quo | SDGs |
|---|--|--|---|---|--|
| GRID EXPANSION AND UPGRADE | We are systematically implementing the grid expansion and upgrade measures which are necessary by 2023. Our ambitious plans and projects reflect the phase-out of nuclear power taking place up until then as well as the ongoing coal phase-out and the increasing share of renewable energies. | By 2020, implement three scenario analyses to increase planning robustness over and above the legal framework | ☑ | - Several scenarios calculated with different partners as part of Systemvision 2050 Also: - Dedicated analysis conducted on winter 2022/2023 - In-house studies on the climate-neutral energy system 2045/2050 | 7, 8, 9, 13, 15 |
| | GRID AND SYSTEMS DEVELOPMENT | We are developing a concept for a system that looks ahead to 2050 and takes account of the restructuring of the energy system in a holistic and sustainable way while ensuring safe, efficient and sustainable energy transport. We are playing an active role in the expansion of the German and European energy systems as a condition of achieving the climate and market targets together. | Continuously align current and future activities Europe-wide with the need to decarbonise society | → | - Systemvision 2050 implemented and published - Energy system modelling skills built up |
| By 2021, assess and report the carbon-neutral share of electricity transmission in Germany | | ☑ | - Valuation completed - Tools available for determining the carbon dioxide share | | |
| By 2020, develop new concepts for the efficient use of power-to-gas and storage (sector coupling) | | ☑ | - Tools available for using power-to-gas & storage efficiently | | |

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| | Strategic focus | Operational goals & measures | Status quo | Details of status quo | SDGs |
|-----------------|---|--|------------|---|----------|
| SYSTEM SECURITY | Our goal is to maintain the present high level of system security while taking account of the increasing challenges posed by the continuous transformation of the energy system and the effects of the upcoming implementation of European Clean Energy Package (CEP) requirements. | Comply with transmission grid downtime of < 0.1% per year, taking account of the upcoming transformation of the energy system and the increasing technical complexity of IT security aspects | → | - For current grid availability figures, see the table of key data for the secure power system Table 3 | 7, 9, 13 |
| | | Ensure continuous 24/7 operation and maintain grid operations resources despite the higher degree of utilisation | → | - Various tasks taken on at the Operations Management Centre in 24/7 shift operation Also: - Group Control Centre and Operations Management Centre now share responsibility for report administration | |
| | | Continuously implement measures to improve the integration of renewable energies, increase the utilisation of the existing grid and enable grid upgrading from a systems engineering perspective | → | - ALEGrO project completed - Ongoing: Weather-dependent overhead power line operation, own forecasts for feed-in of renewable energies | |
| | | By 2020, complete the research project on the development of grid restarting methods with power generation comprised of up to 100% renewable energies | ✓ | | |

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| | Strategic focus | Operational goals & measures | Status quo | Details of status quo | SDGs |
|---------------------------------|---|--|------------|---|------|
| EUROPEAN FRAMEWORK REQUIREMENTS | We are actively involved in the further development of the European internal market with a view to balancing the three future energy supply pillars - renewable energies, system security and the market. | Play an ongoing, formative role in the further development of the EU internal market (in particular, implementation of the Clean Energy Package) | → | <ul style="list-style-type: none"> - Clean Energy Package implemented - Contributions to the climate neutrality target/Green Deal measures through initiatives such as Hybridge and Eurobar - Positive market development, see Amprion Market Report | 13 |
| | | Commit to ongoing involvement in the activities of the European Network of Transmission System Operators for Electricity (ENTSO-E) and the promotion of regional cooperation at European level | → | <ul style="list-style-type: none"> - Involvement under the umbrella of ENTSO-E in the form of proactive participation in numerous working groups and the appointment of Amprion representatives to key positions (Chairman of the Board & Chair of the System Development Committee) - Regional cooperation promoted at European level, e.g. for the purpose of stabilising the European electricity grid (frequency containment reserve), integrating renewable energy from central and decentralised sources (Renewable Grid Initiative), interconnecting TSOs and NGOs in the context of sustainable offshore development (Offshore Coalition) and promoting offshore networking across national borders (Eurobar) | |
| COOPERATION | We are extending our cooperation activities, to enable us to meet the dynamically changing requirements regarding the further development of the German and European energy systems together with our partners. | Continuously extend cooperation activities between transmission system operators and distribution system operators as well as with other players involved in restructuring the energy system | → | - Pilot projects under Connect+ (Redispatch 2.0): Cooperation with DSOs and the German Meteorological Service (DWD) to optimise the use of weather data for system operation and grid operations | 7, 9 |
| | | Maintain our leading role when it comes to server hosting | → | | |
| | | By 2024, complete at least five cooperation projects with the scientific community | → | <ul style="list-style-type: none"> - Completed: Grid restart with up to 100% renewable energies (Technical University of Kaiserslautern), Gridcast - By 2023: Solrev - By 2024: SnowFogs, PermaStrom | |

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Field of action: Society and customers

| | Strategic focus | Operational goals & measures | Status quo | Details of status quo | SDGs |
|----------------------------|--|--|-------------------|--|-------------|
| REGIONAL COMMITMENT | Our grid expansion affect people’s homes and hence their living space. We therefore seek to engage in dialogue with stakeholders in the area as well as the general public at a very early stage and incorporate the knowledge gathered locally. Timeliness, transparency and continuity of project communication are our guiding principles in this regard. Where possible, we create added value for local stakeholders as a result of implementing the project. | Give ongoing consideration to project communication premises while implementing our projects in the sense of timely information and transparent, consistent and targeted communication | → | | N/A |
| | | Design and implement project-specific communication measures such that they meet the information needs of the target groups on site. The aim here is firstly to provide information on envisaged projects or measures and secondly to take statements and opinions from people based on their local knowledge and involve them as far as possible. | ↻ | - Operational goal corrected | |
| | | By assigning a permanent project spokesperson as our “public face” for all grid expansion within a project region, we promote continuity in the local dialogue and hence build trust between Amprion and various stakeholder groups. The project spokesperson remains available as a point of contact even after commissioning. | ↻ | - Operational goal corrected | |
| | | By 2020, adopt a guideline on stakeholder management | → | - Existing stakeholder management processes analysed - Definition and implementation of a uniform best practice planned - Finalisation and implementation of the guideline planned during the first half of 2023 | |

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| | Strategic focus | Operational goals & measures | Status quo | Details of status quo | SDGs |
|-----------|--|---|------------|---|------|
| CUSTOMERS | As we move closer to transforming the energy system, we ensure the highest possible level of system security for our customers and offer competitive prices. We constantly develop cooperation with our customers by maintaining an ongoing conversation and defending their interests. In doing so, we act as a competent, solution-oriented partner. | Achieve a minimum score of 70% for two key indicators – customer satisfaction and customer loyalty – thereby maintaining our high level of customer care management | → | <ul style="list-style-type: none"> - 85% customer satisfaction (2020) and 80% customer loyalty (2021) - Next customer survey in 2023 | N/A |
| | | Ongoing development of the grid connection procedure to enable more efficient processing of requests for connection to Amprion's transmission grid (including renewables) | → | <ul style="list-style-type: none"> - "Customer Journey" project presented in March 2022 including specific recommendations for action - Customer projects established as an integral element of our corporate goals - In the short term, further recommendations for action incorporated in the Project Management Manual for grid projects - In the medium term, further recommendations for action incorporated in process optimisation | |
| SOCIETY | We make an active contribution to the common good by helping to shape a secure, efficient and sustainable power system and further developing the German and European electricity markets together with other players. | See goals under "Secure power system" Intensify cooperation with NGOs and other stakeholders | → | <ul style="list-style-type: none"> - Cooperation with NGOs and other stakeholders intensified according to needs and opportunities | N/A |

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Field of action: Environment



| | Strategic focus | Operational goals & measures | Status quo | Details of status quo | SDGs |
|---------------------|---|--|--|--|--------|
| NATURE CONSERVATION | Within the framework of Integrated Vegetation Management, we design our overhead line with fitting solutions that keep the impact on the landscape as low as possible for optimal sustainability and stability. | By 2022, review the ongoing evolution of Amprion's biotope management to Integrated Vegetation Management | ☑ | - Evolution to Integrated Vegetation Management completed on schedule | 13, 15 |
| | | Continuous application of Integrated Vegetation Management on all relevant route sections | → | - Integrated Vegetation Management plans prepared and applied throughout the grid - Regular updates similar to the maintenance strategy | |
| | Our projects are implemented taking very conscientious account of soil protection. | Introduce and establish high soil protection standards when laying underground cabling | ☑ | - DIN 19639 standards complied with when laying underground cabling - Specific soil protection standards defined in the form of in-house guidelines | |
| | | By the end of 2023, develop a guide to soil protection in cable construction in the form of an external brochure | → | - In-house consultations completed - External publication planned during 2023 | |
| | Monitor the soil on the ALEGrO underground cable route to determine the impacts of cable construction and operation | → | - Scheduled for completion in 2025 - First interim report received in 2023 - Interim results to be published in 2023 | | |

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| Strategic focus | Operational goals & measures | Status quo | Details of status quo | SDGs |
|---|--|------------|--|-----------|
| We protect animal and plant species at a high level, actively campaign for the protection of species – especially birds – along overhead power lines and develop new concepts for species protection. | Achieve comprehensive coverage of all relevant route sections with bird protection markers | → | <ul style="list-style-type: none"> - Entire grid assessed regarding the need for bird protection markers - Project-specific need for bird protection markers re-assessed for each new project | 9, 13, 15 |
| | By 2023, prepare an overarching concept for assessing suitable species protection measures | ✓ | - Procedure developed for assessing measures within the framework of a quality assurance concept and coordinated internal process defined | |
| | Develop a concept for planting flowering meadows and insect hotels | ✓ | <ul style="list-style-type: none"> - Internally coordinated concept developed for planting and maintaining flowering meadows - Flowering meadows/insect hotels successfully implemented in numerous substations - 2022: 20 flowering meadows created | |
| | Initiate at least one voluntary nature and species conservation project per year up until 2028 | → | <ul style="list-style-type: none"> - Goal for 2023 already achieved - Ongoing involvement in the LIFE EUOKITE project to protect the red kite and other large birds (2019-2027) | |
| | Continuously increase the transparency of our commitment to nature and species conservation projects | → | <ul style="list-style-type: none"> - Support for the “Bird Hotline” portal operated by the partner organisation of BirdLife (NABU) and the Renewables Grid Initiative - Information brochures updated - Amprion’s commitment presented at conferences and external events - Online sites and platforms updated | |
| | By the end of 2023, develop a nest management concept to protect breeding birds on pylons | → | <ul style="list-style-type: none"> - Development of the in-house concept already completed - Key content published externally in the form of a guideline | |

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|--|--|--|------------|--|--------|
| RESOURCE CONSERVATION AND CLIMATE PROTECTION | Protecting human life and the environment is a high priority for us. We will continue to improve our energy efficiency, use environmentally-friendly materials and keep material use as low as possible. | By 2020, implement a pilot project to connect an SF ₆ -free voltage transformer | ☑ | <ul style="list-style-type: none"> - 220 kV transformers commissioned - SF₆ management system introduced - SF₆-free voltage transformers piloted in 420 kV and 245 kV | 13, 15 |
| | | By 2020, prepare a greenhouse gas balance sheet for Amprion (Scope 1 and 2, no external suppliers) | ☑ | Also: <ul style="list-style-type: none"> - 2022: Greenhouse gas balance sheet prepared for Scope 3 | |
| | | By the end of 2023, submit targets for Scope 1-3 to the SBTi | → | <ul style="list-style-type: none"> - Targets defined for Scope 1-3 - Targets submitted to SBTi for validation | |
| | | Continuously ensure high energy efficiency in new buildings | → | | |
| | | By 2021, review ways to save resources and increase energy efficiency in existing buildings | ☑ | Review completed and first measures implemented: <ul style="list-style-type: none"> - Ongoing analysis of the control systems for the administration building in order to optimise consumption Also: <ul style="list-style-type: none"> - Recovery and use of waste heat from the rotating phase shifter (RPS) planned for all new Amprion construction projects in the coming years | |

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Field of action: Employees



| | Strategic focus | Operational goals & measures | Status quo | Details of status quo | SDGs |
|--------------------------------|---|---|------------|---|------|
| OCCUPATIONAL HEALTH AND SAFETY | We attach utmost importance to the occupational health and safety of our employees as well as that of any employees of partner companies working for us. To this end, we regularly develop new measures and continuously improve our established programmes and processes. Our aim is for each individual to return home as healthy as they came to work. | By 2021, switch occupational health and safety certification over from OHSAS 18001 to ISO 45001 | ☑ | | 8 |
| | | By the end of 2022, develop an e-learning course in the Amprion Learning Portal to teach management obligations linked to occupational health and safety | → | - Training content completed - Final consultations regarding migration to an e-learning format pending along with posting in the Amprion Learning Portal | |
| | | By the end of 2022, conduct and document safety meetings and inspections in operational areas in accordance with the rules set out in the Operational Safety Manual | ☑ | - 313 inspections conducted (of which 305 were scheduled inspections) | |
| | | By 2020, develop a concept to extend the use of multilingual service provider training terminals for occupational health and safety to overhead line construction | ☑ | | |
| | | In 2022, implement training opportunities on IT devices for external service providers, to ensure that such providers receive training in occupational health and safety principles prior to working in assets. | → | - Switch to new software provider due to problems regarding the technical parameters for implementing training - Pilot application rollout in the first half of 2023 | |

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|--------------------------------|---|---|------------|---|------|
| OCCUPATIONAL HEALTH AND SAFETY | We attach utmost importance to the occupational health and safety of our employees as well as that of any employees of partner companies working for us. To this end, we regularly develop new measures and continuously improve our established programmes and processes. Our aim is for each individual to return home as healthy as they came to work. | By 2020, hold at least one joint workshop on occupational health and safety together with service providers | ☑ | - 2020: Workshop to enable occupational health and safety-relevant experiences to be exchanged with main contractors in power line construction Also: - 2021: Workshop to enable occupational health and safety-relevant experiences to be exchanged with main contractors in plant construction - 2022: Workshop to enable occupational health and safety-relevant experiences to be exchanged with main contractors in power line construction | 8 |
| | | At least one new centrally coordinated health-and-safety management offering for employees per year | ☑ | - 2020: Activity Day, online courses - 2021 and 2022: Covid-19 and flu vaccinations | |
| | | Regular Health Days for specific employee groups depending on current needs | ☑ | - Health Days supplemented by a varying range of online courses since 2020 | |
| | | Offer at least one cancer screening for employees per year | ☑ | - 2020 and 2021: Skin cancer screening - 2022: Bowel cancer prevention - 2023: Skin cancer screening | |
| CORPORATE CULTURE | We are an attractive employer offering sustainable jobs and apprenticeships. We develop our employees continuously, ensure a healthy balance between leisure time, family and professional life and generally offer a wide range of development opportunities. We live an identity-building corporate culture based on shared values. We lay the foundation for our business success with committed, qualified employees who identify strongly with their tasks, their teams and the company. | From 2020, be ranked among the top third most attractive employers (e.g. in rating portals such as kununu or Focus) | ⇒ | - 2020: Top 50 in the Top 500 employer ranking, runner-up in the Energy and Utilities industry, number one in the Ruhr region - 2021: Handelsblatt "Amprion Fair Company 2021" - 2022: Handelsblatt "Amprion Fair Company 2022" - Average rating of 4.1 points on kununu since 2011 (average for the "Energy" industry = 3.4 points) | 8 |

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|------------------------------|--|--|------------|--|------|
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| ACTIVE PERSONNEL DEVELOPMENT | <p>As a growing company, we actively develop our staff in line with our corporate goals. Through recruiting as well as basic and advanced training we ensure that every position at our company is filled with the right person, and we actively integrate new employees.</p> | <p>By 2020, hold personnel development planning meetings for at least 80% of all specialist departments</p> | ☑ | <p>Also:</p> <ul style="list-style-type: none"> - Since 2022, needs assessed by means of regular meetings between business partners and the departments they serve. - A business partner is assigned to each department. | 8 |
| | | <p>By 2020, document the quantity and quality of annual employee appraisals based on the personnel development planning meetings</p> | ☑ | <p>Also:</p> <ul style="list-style-type: none"> - Since 2022, quantity and quality of annual employee appraisals documented based on regular meetings between the business partners and the specialist departments - Measures derived depending on current needs | |

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FIELD OF ACTION:
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CORPORATE GOVERNANCE

Through its core business, Amprion contributes to the development of a climate-neutral, secure and efficient energy system that is helping to secure the quality of life and jobs for millions of people. In turn, this reveals that bearing responsibility for society and the environment is a key attribute of Amprion as a company – and shapes our corporate actions, which are guided by clear principles. They are transparent, dependable and founded on partnership. We demand the same from our business partners, along with a commitment to uphold human rights and protect the environment.

GRI 2-1

Transmission system operators have a legal mandate to transport electricity reliably and to ensure the security of the transmission system. Amprion fulfils this mandate in one of the most densely populated regions of Europe. In doing so, we contribute to the provision of public services for the 29 million people who live and work in our own grid area and beyond. The responsibility is reflected in our actions.

For us at Amprion, compliance with legal requirements is something we take for granted. We act according to clear principles, which are laid down in in-house guidelines and form the basis for our business activities. Our actions are characterised by a sense of direct responsibility, sincerity and integrity as well as respect for our fellow human beings and the environment. We act responsibly and dependably by guaranteeing the safe and secure transmission of electricity as well as non-discriminatory access to our grid for all market participants. We inform the public continuously and transparently about our business activities. In this context, we are further expanding our reporting on our non-financial services and performance. Taking responsibility for people and the environment is also a feature of our collaboration with suppliers, with the protection of human rights and environmental aspects increasingly in the spotlight. The legal framework for this is provided by the German Supply Chain Due Diligence Act (LkSG), whose requirements are in the process of implementing.

GRI 3-3

COMPLIANCE

As a transmission system operator, Amprion operates in a legally regulated environment. Our business is therefore impacted by a wide range of regulations and laws imposed by the regulatory authorities in Germany (Federal Network Agency) and Europe (ACER – Agency for the Cooperation of Energy Regulators).

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Core business defined by parliament

Amprion's role as a transmission system operator is laid down in the Energy Industry Act (EnWG), according to which our mission is to efficiently operate, optimise, strengthen and expand a secure, reliable and capable transmission network for electricity in line with demand. It is clear from this that our business serves the general interests of society.

The legal requirements result in a wide range of tasks for Amprion. Amongst other things, these include guaranteeing system security, grid planning, driving grid expansion, coordinating electricity flows and integrating renewable energy sources. Furthermore, Amprion is obliged to operate its grid in a non-discriminatory manner. This means that the company must facilitate fair competition by providing open access to the grid. This is monitored by the Federal Network Agency, which is also responsible for approving the grid development measures planned by Germany's four transmission system operators. In order to ensure non-discrimination of market participants, Amprion, as an independent transmission system operator and in accordance with the Energy Industry Act, has appointed a Non-discrimination Officer. This officer is entitled to attend all meetings of the Management Board and Supervisory Board as well as the shareholders' meeting.

[GRI 2-18](#), [GRI 2-19](#)

Responsible corporate governance

As a regulated company, Amprion is subject to particularly legal requirements. The company is managed accordingly by the Management Board, which is itself monitored and supervised by the Supervisory Board. The latter consists of 16 members, half of whom represent the employees and half the shareholders.

The Amprion Management Board also follow basic principles beyond legal requirements, which guide us in our actions and are laid down in guidelines (see [Basic principles of our corporate governance](#)). They simultaneously form the basis for cooperation with our external and internal stakeholders. Transparency plays an important role in this connection: Amprion discloses all relevant financial and energy industry-related data in our Annual Report. Furthermore, by expanding the scope of our sustainability reporting, we are going beyond the statutory disclosure requirements. We use environmental and social indicators to show how our business activities impact society and the environment. At the same time, we look at the impacts which climate change has on our business (see [An eye on climate risks](#)). We also developed guiding principles for driving and measuring Amprion's sustainability progress in the future. For the first time, the Management Board's variable remuneration will in 2023 be linked to the achievement of certain Sustainable Development Goals, such as reducing CO₂ emissions.

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**GUIDING PRINCIPLES - BASIC PRINCIPLES
OF OUR CORPORATE GOVERNANCE**

**Profitability,
efficiency and
sustainability**

Amprion guarantees an efficient transmission system that supports energy policy goals with a view to 2030/2050.



**System security
and reliable grid
operation**

Amprion ensures system security and establishes the conditions necessary to configure the grid to meet demands, manage it efficiently and operate it safely.



**Environmental
protection**

Amprion meets high environmental protection standards in its planning, construction and operation of the grid.



**Innovation, knowl-
edge and skills**

Amprion manages the grid with the aid of a qualified workforce.



Collaborations

Amprion cooperates with other grid operators and maintains respectful dealings with authorities and organisations.



[GRI 2-23](#), [GRI 2-24](#), [GRI 2-25](#), [GRI 205-2](#)

Compliance management system

Amprion has established a compliance management system (CMS), which was introduced by order of the Management Board when the company was founded and has been continuously evolved ever since. It is designed to ensure that Amprion, including our offshore-line subsidiary, always acts with integrity as well as compliant with regulations and law. Adjustments are made to the CMS as required, based on legal requirements, and are approved by the Management Board. In 2018, the CMS was audited in accordance with Assurance Standard 980 of the Institute of Public Auditors in Germany (IDW PS 980) and certified in respect of areas exposed to a potential risk of corruption.

Three key sets of rules ensure practical implementation of the CMS: the Compliance Code, the Compliance Guideline and the Compliance Manual. The [Compliance Code](#) sets out key compliance principles which the Supervisory Board, the Management Board and all executives and employees are obligated to uphold. Amongst other things, these relate to dealing with external business partners and politicians as well as to the observance of internationally recognised human rights and sustainability regulations. The current version can be viewed and downloaded from our website. The Compliance Guideline, on the other hand, informs all employees about basic rules for dealing with compliance risks in their day-to-day work. The Compliance Manual describes all compliance management processes and tasks.

Amprion's managers are obliged to promote compliant behaviour and are required to act as role models in this respect. In critical compliance situations, employees can approach them for advice. Amprion also has a Compliance Officer who deals with all compliance-related issues. Their tasks include continuously supervising, monitoring and making improvements to Amprion's CMS.

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In order to sensitise our employees to compliant behaviour, we oblige each and every one of them – including the Management Board – to take part in online compliance training. New employees are given this training as part of their onboarding events when they first start their jobs. Furthermore, all employees receive a copy of the Compliance Code when they are hired and commit to compliance with it. In addition to this, Amprion conducts target group-specific training sessions on relevant compliance topics, for instance in the area of purchasing. Over the course of the Covid-19 pandemic, we began to offer more of our training activities in virtual formats and we also intend to expand our virtual offering in the future.

[GRI 2-15](#), [GRI 2-16](#), [GRI 2-25](#), [GRI 2-26](#), [GRI 2-27](#), [GRI 205-1](#), [GRI 205-3](#), [GRI 206-1](#)

Definition and monitoring of compliance requirements

With the help of process-oriented compliance risk analyses conducted at regular intervals, Amprion identifies significant compliance risks and associated goals. Since this is done on the basis of processes, risks are identified independently of individual plants and hence throughout the company. Refraining from corrupt activities or anti-competitive practices and avoiding conflicts of interest, protecting intellectual property, data protection and IT security, integrity, fairness and transparency as well as the documentation of business records are all issues of relevance to compliance. Other goals include compliance with environmental and occupational health and safety regulations, an objective dialogue with representatives of state agencies and political parties and consistent efforts to avoid the exertion of undue influence.

The issues are prioritised according to their impact. On this basis, Amprion identifies compliance risks that are especially severe, defines risk-minimising preventive measures and reviews these on a quarterly basis with the aid of a monitoring process. The Compliance department regularly reports the results to the Management Board. This process is designed to ensure that Amprion monitors and minimises its compliance risks. In the course of this, all executives must also verify that the rules from the Compliance Code have been observed and that no compliance violations have come to light. In the event of possible in-house and external violations, Amprion examines the cases in question, imposes sanctions on them and takes measures to prevent them in the future. The efficacy of the measures is reviewed by the Compliance Officer. No fines were imposed on Amprion in 2022 in connection with breaches of the law. Similarly, no proceedings were instituted due to anti-competitive practices or breaches of anti-trust or monopolies laws. Moreover, in the year under review no cases of corruption transpired at Amprion.

The Compliance Officer is responsible for monitoring compliance requirements. Amprion additionally operates a complaints management system, which can be used to report compliance violations. Amprion has appointed an ombudsman in this connection to act as an external point of contact for investigating compliance issues and dealing with questions as well as reports or complaints submitted. The ombudsman can be contacted not only by all employees but also by third parties such as market participants, suppliers or other business partners. Their contact details, including an email address and a special telephone number serving as a whistleblowing hotline, are published both on the intranet and on the Amprion [website](#). Serious cases are reported directly to the Management Board. All other cases are notified to the Management and Supervisory Boards within the framework of regular reporting.

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[GRI 2-28, GRI 415-1](#)

Dialogue with politicians

We keep our grid stable and secure – and are paving the way for a climate-neutral energy system. To enable us to fulfil this legal mandate, we hold regular meetings with numerous partners in society, business and politics. Communication takes place at European, federal, state and – in the case of grid expansion projects – local level.

Part of the political dialogue entails talking to policymakers and their employees. They can be found in the executive and the legislative, in public authorities and administration or on the payroll of relevant stakeholders. Amprion is also involved on a number of political levels through its membership in various associations. These include the umbrella organisation of European transmission system operators, ENTSO-E.

Our social responsibility is linked to an obligation to make all lobbying as visible as possible: openness, transparency, honesty and integrity are guiding principles for our political work. In this context, we want to prevent even the appearance of us enjoying undue influence. For this reason, Amprion has no party-political affiliations and does not donate to political parties. This also applies to organisations or foundations that are closely linked to political parties. These same principles

Amprion's association memberships include

- ENTSO-E
- Renewables Grid Initiative (RGI)
- European Energy Forum
- Cigré (Conseil International des Grands Réseaux Électriques)
- Franco-German Bureau for the Energy Transition (DFBEW)
- German Association of Energy and Water Industries (BDEW)
- Forschungsgesellschaft Energie e.V. (FGE, "Research Association Energy")
- German Association for Electrical, Electronic & Information Technologies (VDE)
- Forum Network Technology / Network Operation (FNN)
- Forum für Zukunftsenergien e.V. ("Forum for Future Energy Sources")
- German Offshore Wind Energy Foundation (Stiftung Offshore-Windenergie)
- Economic Council
- Wirtschaftsforum ("Economic Forum")

are laid down in our Compliance Code. Amprion GmbH is listed in the lobby register of the German Bundestag and the federal government under number R002477 and in the European Transparency Register under number 426344123116-68.

[GRI 3-3](#)

PROCUREMENT

In our Compliance Code, we declare our support for and adherence to a set of generally applicable basic principles. Along our value chain, we advocate the recognition, promotion and observance of fundamental values in the fields of human rights, labour standards, environmental protection and fighting corruption. We expect the same from our external partners, too.

[GRI 2-6, GRI 204-1](#)

Supplier management

Amprion orders a wide range of products and services from its suppliers. First and foremost, these include technical components for the grid infrastructure, such as conductor cables, high-voltage power cables, steel for pylons, high-voltage switchgear, substations, transformers, insulators and measuring, protection and control equipment. In addition, Amprion purchases IT products as well as furniture and office equipment and utilises a very wide range of services. These include civil engineering as well as engineering and personnel services. 95 per cent of the purchase volume is accounted for by local suppliers headquartered in Germany. As such, the majority are subject to the legal provisions of the European Union (EU) and Germany. A procurement guideline regulates responsibilities in the purchasing process. We are also currently setting up a central supplier management system. Thanks to our solid base of suppliers, we remained able to procure all essential materials and services without any problems in 2022, despite the numerous disrupted supply chains.

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[GRI 2-24](#), [GRI 308-1](#), [GRI 308-2](#), [GRI 407-1](#), [GRI 414-1](#), [GRI 414-2](#)

Criteria for responsible procurement

Amprion fosters dependable relationships with its suppliers. In our “General Terms and Conditions of Purchase and Payment” (GTCP), we require our suppliers and service providers to uphold human rights, comply with industrial safety, environmental protection and minimum wage legislation and act in a legally and ethically impeccable manner.

The commitment to human rights forms part of our Compliance Code, which also imposes an obligation on Amprion’s suppliers and service providers to respect such rights. Ensuring freedom of assembly, eliminating child labour, forced labour and discrimination in employment policies and avoiding corruption form part of this obligation. For each new order, suppliers and service providers contractually agree, by default and within the framework of the GTCP, to adhere to the Compliance Code. In implementing our duty of care in respect of human rights, we are guided by the National Action Plan for “Business and Human Rights”. In line with the requirements of the German Supply Chain Due Diligence Act (LkSG), Amprion will establish binding due care and diligence processes in the coming years for the purpose of monitoring and promoting compliance with environmental law and human rights along the supply chain. Based on our company’s size, the Act will come into effect for Amprion on 1 January 2024.

Furthermore, we plan to take advantage of the cooperation with our supplier network to jointly drive ecological transformation. With this in mind, Amprion and other European transmission system operators offered encouragement to relevant suppliers in 2022 in the form of another joint call for action ([Joint Call for Action](#)).

MORE CLIMATE-FRIENDLY STEEL FOR OUR TRANSFORMERS

Cooperation with our suppliers is essential in order to reduce carbon emissions. One particularly effective example relates to the manufacture of electrical steel strips – the components of our transformers that enable energy to be transported and provided efficiently. The company concerned now supplies us with new, more climate-friendly electrical steel strips comprised of core laminations for the converter stations of our A-Nord and Ultranet lines. These meet the requirements of the European Ecodesign Directive, which were tightened up only recently – as well as our own high standards of energy efficiency. This marks the latest step in our efforts to manufacture transformers more sustainably.



Amprion is procuring more climate-friendly electrical steel strips comprised of core laminations for the A-Nord and Ultranet converter stations.

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OUR DUTY?

**MORE THAN JUST
EFFICIENT POWER
TRANSMISSION.**

**FIELD OF ACTION:
SECURE
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SECURE POWER SYSTEM

Amprion connects grid stability with climate protection. Even at these times when energy is scarce, Amprion keeps the grid stable and safe – paving the way for energy transition. To achieve this, we rely on innovative solutions for system operation and control as well as on the expansion of our onshore and offshore grid to meet demand. Apart from our own grid, we are also involved in planning the energy system of the future. By these means, we are driving energy transition forward – in collaboration with partners in Germany and Europe.

Through our measures in the field of action we refer to as the “Secure Power System”, we are contributing directly to fulfilling SDGs 7 - Affordable and Clean Energy, 9 - Industry, Innovation and Infrastructure and 13 - Climate Action.



The energy transition is leading to a fundamental change in the generation landscape. The share of renewables in the energy mix is increasing. At the same time, the electricity generated has to be transmitted over ever greater distances. This is because wind or solar energy is in many cases not generated where it is mostly needed. This increases the demands on the stability and transport capacity of the grid.

As a transmission system operator, Amprion has a legal mandate to transport electricity and ensure the security of the transmission system at all times. This applies not only against the backdrop of ever higher volumes of renewable energy but also in the light of the changing framework requirements in the European energy market. All in all, the year 2022 posed daunting challenges for European transmission system operators. The Ukraine war, dependence on imports of fossil fuels and power generation bottlenecks in neighbouring European countries combined to create a tense situation on the European energy market. Transmission system operators, too, had to adjust accordingly.

Even under these extremely difficult conditions, Amprion continues to do everything in its power to keep the grids stable and secure – while guaranteeing the necessary independence (see [Secure and stable at all times](#)). To this end, we are developing our grid infrastructure further and working on innovative solutions that will enable the energy world to transform while helping to advance climate protection in Germany and Europe.

Thanks to the energy transition, our role as a grid operator located at the heart of Europe is also gaining in importance. Today, Amprion – from its System Operation & Control Centre in Brauweiler near Cologne – already coordinates electricity flows far beyond the boundaries of its own control area. With the increased adoption of renewables and the thriving electricity trade in Europe, cross-border electricity transports are continuing to grow. Consequently, in addition to the national perspective, the European perspective is also becoming a yardstick for gauging the

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dimensioning of the electricity system of tomorrow. That is why we are working with numerous partners to create a common, Europe-wide internal market for electricity.

[GRI 3-3](#), [GRI 203-1](#), [GRI 203-2](#)

DEVELOPMENT OF THE GRID INFRASTRUCTURE

Amprion's transmission grid is crucial for making sustainably generated electricity available throughout the country – and Europe – and for exchanging it with national and European neighbours. However, because the volumes of electricity from renewable energies are increasing and demand for electricity is growing, additional grid capacities are essential. Against this background, we are continuing to develop our grid infrastructure. In doing so, we are paving the way for energy transition and the achievement of German and European climate targets.

Grids for energy transition

Within the scope of our legal mandate, Amprion is pressing ahead with restructuring the grid. Amprion plans to invest more than 22 billion euros in this between 2023 and 2027. At the same time, we are continuing to develop our processes and operate an asset management system that meets the requirements of international standard ISO 55001.

In the course of the energy transition, we will strengthen and expand our grid, which already extends over some 11,000 kilometres. This includes legally required projects on the mainland totalling approximately 3,700 kilometres under the Power Grid Expansion Act (EnLAG) and the Federal Requirements Plan Act (BBPIG), whose implementation is monitored by the German Federal Ministry for Economic Affairs and Climate Action (BMWK). In February 2023, 735 kilometres of lines were

~ 5,400

kilometres of onshore transmission grid and offshore grid connections are being expanded and upgraded by Amprion. In doing so, we are paving the way for a climate-friendly energy system.

being planned in-house in preparation for the approval procedures, 2,033 kilometres were in the approval phase and 251 kilometres were under construction. 616 kilometres had already been completed. Amprion is also active in the field of offshore grid connections with the DolWin4 and BorWin4 projects (under the BBPIG) as well as BalWin1 and BalWin2 (under the Site Development Plan). The planned lines extend over about 1,700 kilometres.

In order to provide the required grid capacities fast, Amprion is focusing on demand-oriented solutions, taking account of the local context. In dialogue with the local people and authorities in the regions, we are implementing the most compatible measure for each case (see also [Dialogue with relevant stakeholders](#)). Amprion makes its decisions in accordance with the NOVA principle laid down by legislators in the Energy Industry Act (EnWG): grid optimisation first, upgrading second, then expansion. In this context, adaptive overhead line operation offers an efficient way to provide higher grid capacities at short notice. The technology enables the load on power lines to be increased depending on the weather. It allows us to expand grid capacities without the need for any appreciable interventions.

Significant progress in terms of grid expansion was achieved in 2022 with the Corridor B project. Starting in the early 2030s, the two new direct current underground cable links will transport electricity from the windy North Sea coast to the Ruhr region. Following the presentation of the preferred route, Amprion submitted the documents for federal sectoral planning to the Federal Network Agency in September 2022 – the starting signal for the Corridor B approval procedure. We informed politicians, administration and citizens comprehensively about the project upfront.

22

billion euros is the amount Amprion will be investing in expanding and upgrading the grid between 2023 and 2027.

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**OUR CONTRIBUTIONS TO A
CLIMATE-NEUTRAL ENERGY SYSTEM**

WE...

... are expanding and upgrading our grid so that it can handle renewable energy sources

... are continuing to keep the grid stable in the face of changing conditions

... are driving forward sector coupling and integration so that we can plan the grid infrastructure as one complete system ("one system view")

... are connecting renewables to our grid - onshore and offshore

... are transporting more and more electricity from renewable sources safely and reliably around Germany

... are continuously optimising our system operation and control systems and establishing new forecasting tools for the integration of renewables

... are transporting electricity over long distances from the generation centres to the consumption centres

... are playing our part in supplying electricity to the consumers in our grid area

... are integrating renewables into the energy market

... are interconnecting energy markets in Germany and Europe

... are integrating renewable energy more and more into system operation and control

... are facilitating the coal phase-out and ongoing decarbonisation of the energy system

Connecting and interconnecting offshore wind power

If we are to successfully decarbonise industry, it is crucial that we bring offshore wind energy on shore and then transport it to centres of consumption. This is why Amprion is also active in the field of offshore grid connections. We bundle our activities in our Amprion Offshore subsidiary.

Amprion is currently implementing the DoIWin4 and BorWin4 offshore grid connection systems, which will go into operation in 2028. Further applications for planning approval were submitted for several route sections in 2022 and, parallel to this, we got under way with the first construction measures commenced. Amprion has two more offshore connection systems in the pipeline: BalWin1 and BalWin2 are scheduled to go online in 2029 and 2030 respectively - earlier than originally projected. Together with TenneT, Amprion has also identified additional routes for crossing coastal waters in the regional planning procedure christened "Seetrassen 2030". The aim here is to meet the increased demand for offshore connections and implement them quicker.

Equally important for achieving climate targets is the construction of cross-border power lines - both offshore and onshore. Amprion is collaborating with seven other transmission system operators in the [Eurobar](#) initiative, which is paving the way for a common European offshore infrastructure. The objective is to integrate offshore wind energy into the European grid efficiently and securely - starting from current regulations and projects already under way. The wind power can then be collected over a large area and transported to where it is needed. The idea is that Eurobar will simultaneously enable countries to be interconnected at sea on the way to a networked offshore system. In other words, we are making the European electricity transmission grid even more flexible and efficient across national borders.

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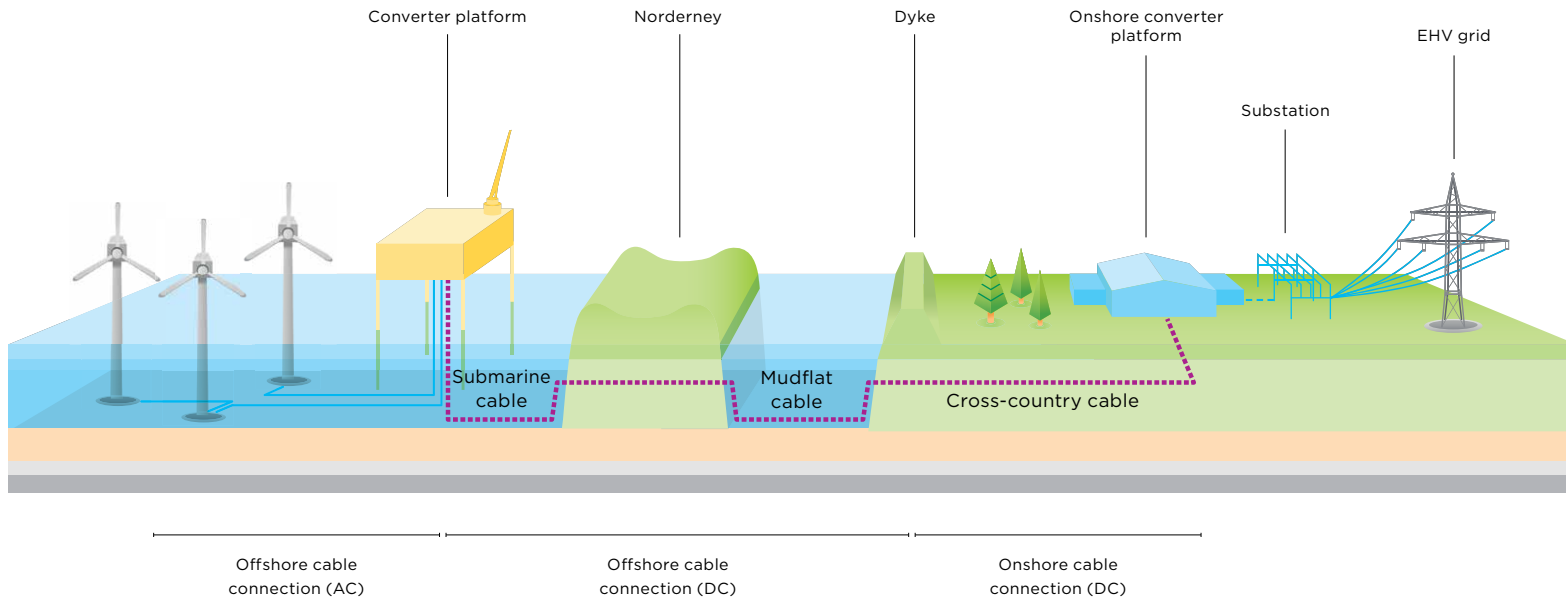
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**HOW THE OFFSHORE
CONNECTION WORKS**

For energy transition to succeed, Amprion must bring offshore wind energy on shore. This is part of the remit of the DoWin4 and BorWin4 connection systems that are currently being planned. These direct current underground cable links will pass under the island of Norderney on their way towards the mainland. We are using both minimally invasive drilling methods and gentle laying techniques for this purpose.



Schematic representation

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Efficient DC transmission

Amprion is deploying modern technologies such as high-voltage direct-current (HVDC) transmission systems to transport electricity efficiently over longer distances. In view of the huge distances involved, these systems offer numerous advantages for renewable energies: HVDC transmission regulates current flows better, resulting in lower transmission losses on the way. They are consequently the ideal solution for long transmission routes between the North and South of the country because they cushion additional loads on our grid. Amprion is utilising them, amongst other things, in the ALEGrO project – the first direct electricity link between Germany and Belgium – and in western Germany’s DC link known as Corridor A (Emden East-Osterath), which runs from Lower Saxony to North Rhine-Westphalia. This is immediately followed geographically by a grid upgrade in connection with the Ultranet grid expansion (Osterath-Philippsburg) between North Rhine-Westphalia and Baden-Württemberg. We will be transmitting both direct and alternating current there, at a voltage of 380 kilovolts (kV), over the same pylons. Since we are employing existing routes to do this, there will be no need to appropriate further space. DC transmission systems over several hundred kilometres are additionally being planned as part of the Corridor B (Heide/West-Polsum and Wilhelms-haven-Hamm) and DC34 (Rastede-Bürstadt) projects.

Plastic-insulated underground DC cables operated at 525 kilovolts (kV) will be used in the future. These are presently being considered in the planning of our A-Nord and Corridor B projects, for example. This will enable us to upgrade our grid and connect renewable wind power from the North Sea with the load centres in western and southern Germany.



DC transmission systems such as Ultranet enable electricity to be transported particularly efficiently over longer distances.

[GRI 3-3](#), [GRI 203-1](#), [GRI 203-2](#)

GRID AND SYSTEMS DEVELOPMENT

The electricity system has been undergoing transformation for more than two decades now, dominated by the switch to renewable energy sources. All energy sectors must be included in this development. In order to achieve the climate neutrality we are striving for, Amprion is consequently pursuing a holistic approach.

Scenarios for the energy world of the future

Amprion already transmits large volumes of renewables via its grids. Out of a total capacity of 63,853 megawatts (2021: 67,995 megawatts), 28,475 megawatts (2021: 26,948 megawatts) came from renewable sources. This corresponds to about 45 per cent (2021: 40 per cent) – and the trend is upward. The decrease in the total volume compared to the previous year is, in other words, confined to the grid’s non-renewables capacity (see [Table 2](#)).

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SECURE AND STABLE AT ALL TIMES

From the repercussions of the Ukraine war to problems with the availability of European power plant capacities – 2022 posed enormous challenges for the European energy system. In particular, the situation forecast for last winter called for precise preparation in order to secure the power supply. Amprion was involved here in a variety of ways.

OUR CONTRIBUTIONS TO A SECURE POWER SUPPLY

Market and grid analyses

Together with other transmission system operators, we participated in the preparation of stress tests and dedicated analyses on the power supply in winter, from which a catalogue of measures was derived.

Increased transmission capacities

We were able to increase transmission capacities using innovative solutions such as weather-dependent overhead line operation.

Use of additional power plant capacities

Additional reserves were secured in Germany and other European countries in broad cooperation with other grid and power plant operators.

Enabling load reductions

To counteract potential energy shortages, we offered major power consumers the option of voluntary load reduction – as a way to improve predictability and, ultimately, help stabilise the grid.

Communication

We did our part to objectify the public debate with proactive communication regarding the grid stability situation last winter.

Support for international electricity trading

Amprion collaborated with other transmission system operators to increase the grid capacity on offer for cross-zonal trading to France.



Despite the tense situation, the German transmission grid remained stable at all times throughout the winter. Our precise studies and advance preparations – for example in the form of dedicated analyses – laid the foundation here. In the end, the actual situation did not once depart from the scenarios examined by us. We are now using the lessons learned to prepare for the coming winter.

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The goal is for the energy system to become climate-neutral by 2050. The interrelationships are complex and the developments dynamic – and yet we must set the necessary course today. After all, we are talking about enormous investments in infrastructure with long lead times. This is why Amprion relies on robust planning approaches. In cooperation with the other German transmission system operators, we are fulfilling our mission – as defined in the Energy Industry Act – of preparing a Network Development Plan that takes a long-term view of the energy grid. At the same time, we are helping to prepare short-term scenarios, for example for calculating the required network reserve for the winter months on behalf of the Federal Network Agency.

Beyond the scenarios required by law, we also carry out other comprehensive and well-founded analyses. On the one hand we examine concrete issues, for instance in connection with the [☑ coal phase-out by 2030 \(German only\)](#). On the other, these scenarios also take account of the systemic level, as in our [☑ System-vision 2050 \(German only\)](#). The project aims to identify and discuss the requirements for a climate-neutral energy system by interacting closely with politics, business and society. In 2022, Amprion published [☑ initial findings \(German only\)](#) from the various visions of the 14 project partners' respective visions. Along with numerous differences, the individual scenarios also reveal several common trends, for example the rising demand for electricity.

Cross-sectoral and holistic energy system

A systemic approach is required to meet the challenges of energy transition. What we mean by that is that the energy system needs to be viewed in its entirety: both the energy sources – electricity, natural gas and



45 per cent of the electricity transported by Amprion comes from renewable sources.

hydrogen – and the sectors – industry, mobility and heating. After all, everything is connected to everything else. Amprion therefore advocates sector integration and an overall system mindset. This is the only way renewables can be put to optimum use and integrated across sectors.

Amprion is already pursuing this holistic approach through its core business. The new System Operation and Control Centre in Brauweiler near Cologne is optimally equipped to contribute to tomorrow's integrated system operation (see also [Grid operation and innovative system operation and control](#)). It allows one of the largest grid areas in continental Europe to be monitored in real time while taking account of changes in the distribution networks. Thanks to its modular design, innovative technologies such as power-to-gas plants can be gradually integrated into the Amprion grid.

Parallel to this, Amprion is continuing to build up its energy system modelling skills. The focus is on the dedicated ESMA (Energy System Modelling and Analysis) analysis tool. This software is capable of analysing and describing the integrated German and European energy system across different sectors. It is also a core element of our Systemvision 2050 for this reason. ESMA analyses take account of a good many parameters such as energy and transport requirements, imports and exports, prices and carbon emissions. The model covers 97 per cent of Germany's ultimate energy demand.

Another building block for integrating the energy system is the [☑ Systemmarkt \(German only\)](#), developed by Amprion in 2022, which is a concept for a new, integrated and modular market design. The Systemmarkt works similar to a capacity market, but with a higher spatial granularity and enhanced with selected ancillary services. It aims to create more investment security for market participants through local capacity incentives as well as to provide incentives for design and site selection that serve the system. Specifically, the Systemmarkt is intended

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to represent the interface between the physical reality of power generation and consumption on the one hand and today’s economic electricity market on the other. At the heart of the concept is a central online platform which reflects all essential needs of the energy system transparently and coordinates their procurement process – while involving market participants. This sets incentives for investment and operating decisions that will serve the system. The Systemmarkt thus helps to ensure system security and security of supply in the long term – while taking account of the changed requirements for a climate-neutral energy system.

[GRI 3-3](#), [GRI 203-1](#), [GRI 203-2](#)

SECURITY AND GRID STABILITY

System security and grid stability are of a high level in Germany. Amprion contributes to this by using state-of-the-art technology. At the same time, the challenges for system operation and control are becoming ever more demanding. Amongst other things, this is due to the increased feed-in of renewables and the planned phase-out of nuclear power as well as power generated from coal. We meet these challenges with innovative solutions that will ensure a secure, flexible and resilient network in tomorrow’s world. Our “System security and secure grid operation” guideline sets out the fundamental precepts for this purpose.

Grid operation and innovative system operation and control

Amprion works around the clock to ensure its grids provide the highest possible level of availability. Our employees maintain some 11,000 kilometres of power lines and service more than 160 substations in the grid area. Our technicians are prepared to do this day and night. In addition, Amprion monitors current flows, voltage and frequency in the transmission grid 24 hours a day. This also includes deploying balancing energy when needed, that is instructing power plants to feed more or less electricity into the grid, for example, in order to

keep generation and consumption in equilibrium at all times. In 2022, 100 per cent grid availability was achieved by Amprion in its control area (see [Table 3](#)).

The nerve centre when it comes to grid management is Amprion’s System Operation & Control Centre in Brauweiler near Cologne. The Centre houses one of the largest video walls in the European energy sector, including the very latest visualisation software. Measuring 108 square metres, it allows engineers to monitor load flows in their area in real time and keep track of even the most challenging situations. We are thus paving the way for a secure network in which optimal use is made of available grid capacity.

Since the scope and volatility of trans-regional load flows are increasing, the area monitored extends far beyond Amprion’s grid area. It comprises the nationwide EHV grid in Germany as well as in the Netherlands, Belgium, large parts of France, Switzerland, Austria, northern Italy, Slovenia, the Czech Republic and Poland. Against this background, Amprion has taken on extensive coordination responsibilities for the European interconnected grid. In short, Amprion is significantly helping to make the European internal electricity market work. Through the Cross-Border Intraday (XBID) trading project, for example, we enable European market participants to engage in cross-border intraday electricity trading. We work closely with the European power exchanges and the transmission system operators of north-western Europe and the Baltic region to bring about continuous optimisation. To enable electricity from renewable energy (generated under feed-in regulation or tariffs) plants in the grid area that are supported by the feed-in tariff to be marketed at optimum cost and in a legally compliant manner, Amprion has been using a specially developed, automated trading algorithm (Auto-Trader) since the beginning of 2022.

100

per cent grid availability was achieved by Amprion in its control area in 2022.

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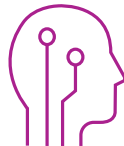
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ARTIFICIAL INTELLIGENCE IN SYSTEM OPERATION AND CONTROL

The generation of electricity from renewables fluctuates greatly depending on the weather. Amprion utilises various forms of artificial intelligence to predict how much electricity from renewable energy sources will be fed into the grid. Self-learning algorithms evaluate different weather models for this purpose. Sources providing the best forecasts in comparable general weather situations are given greater credence and a bigger say in the calculations for the next forecast. The forecast gradually improves as a result, so that in the meantime the previous day's forecast for wind and solar energy in our own control area only deviates from the amount actually generated by between 1.5 and 3 per cent. Amongst other things, it is based on specially developed modules for determining the feed-in from renewables, which have been in use since 2022. These produce a total of 27 different forecasts for electricity generated from the wind and sun – with time horizons ranging from several days to the next quarter of an hour.



Continual system operation and control upgrades

The energy transition is also leading to growth in electricity trading in Europe. More and more electricity is flowing through the cross-border grid. Amprion is facilitating this by building new interconnectors to neighbouring countries and upgrading existing ones. However, because generation and consumption fluctuate, congestion management as well as frequency and voltage control are becoming increasingly important. This is the only way to maintain the high level of grid security in the future. System operation and control tasks are ever more demanding as a result. In order to meet these changing challenges, Amprion is continually developing and upgrading its system operation and control tools.

GRI 3-3

EUROPEAN FRAMEWORK REQUIREMENTS

Maintaining the security of supply while dealing with increasing volumes of renewable energy has become a European task. Amprion currently plays, and will continue to play, a key role when it comes not only to grid expansion and European market integration but also to providing impetus for a new electricity market design. In this way, we are contributing to a reliable and resilient energy system that can also successfully overcome current challenges such as the energy crisis. Under the umbrella of the European Network of Transmission System Operators for Electricity (ENTSO-E), we are pushing for the installation of European framework conditions conducive to the success of the energy transition – together with 38 other transmission system operators from 35 countries. Amongst other things, this involves helping to shape an innovation- and investment-friendly European legal framework that favours essential investments in infrastructure.

Development of Europe's energy system

Amprion's grid lies at the very heart of Europe and is consequently the hub of European electricity trading. In order to strengthen the European internal electricity market, Amprion advocates demand-oriented expansion of cross-border power lines – so-called interconnectors. These help to increase the cross-border exchange of electricity within central Western Europe even further.

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In this context, Amprion continuously carries out planning and technical studies for potential projects together with all relevant international transmission system operators. These are proactively incorporated into policy-making as well as into regulatory processes, for example within the framework of the pan-European [Ten Year Network Development Plan](#). In 2022, Amprion continued to upgrade and expand its interconnectors to Austria, France, Belgium, Luxembourg and Switzerland. One milestone was the construction of the DC link between Germany and Belgium that goes by the name of ALEGrO. This went online in 2020 as an underground cable connection with a capacity of up to 1,000 megawatts.

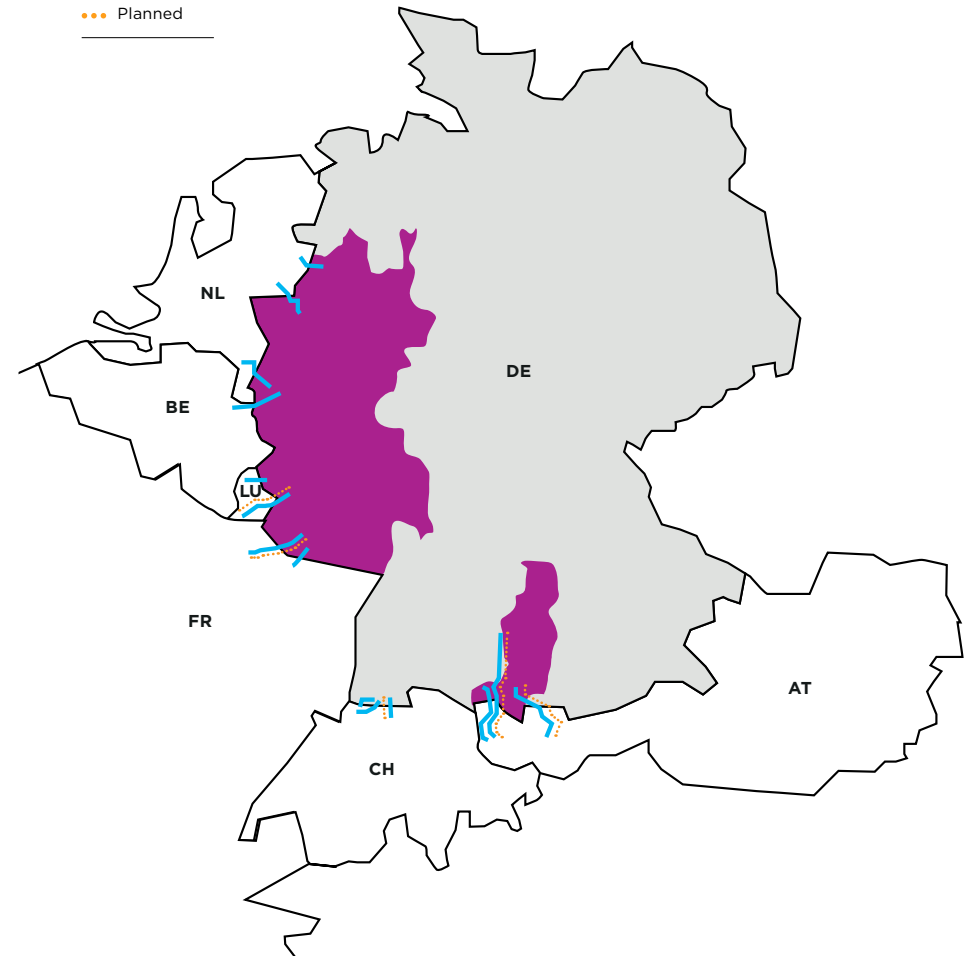
CONNECTING UKRAINE AND THE REPUBLIC OF MOLDOVA TO THE EUROPEAN ELECTRICITY SYSTEM

The electricity grids of Ukraine and the Republic of Moldova have been synchronised with the continental European interconnected grid since 16 March 2022. Amprion was crucially involved in this emergency synchronisation in its role as Coordination Centre together with Swissgrid, thus contributing to a stable supply of electricity in Ukraine and the Republic of Moldova. Since 2017, experts have been preparing to synchronise the Ukrainian and Moldovan grids permanently within the framework of an ENTSO-E project. This was originally not scheduled to happen until 2023. However, at the urgent request of Ukraine and the Republic of Moldova, the date was brought forward significantly due to the current situation and made possible just two weeks after the war began.

AMPRION CONNECTS EUROPE

13 interconnectors connect Amprion's grid to the transmission grids of our European neighbours.

— In operation
 ••• Planned



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Over and above grid expansion, Amprion plays a key role in European market integration and in providing impetus for a new electricity market design. The market design proposed by Amprion – the so-called Systemmarkt – is both integrated and modular. It is intended to take account of the changing requirements for a climate-neutral energy system (see also [Cross-sectoral and holistic energy system](#)).

Europe-wide grid stability and cybersecurity

System security requires European solutions. This is because cross-border power flows are on the increase, as is the volume of renewables being fed into Europe’s grids. It is therefore vital that the increasing and at the same time fluctuating volumes of wind and solar power are controlled better at European level. To this end, Amprion is working together with other European transmission system operators in regional system security cooperations, such as the TSO Security Cooperation. With the help of joint grid security calculations, we forecast electricity flows in Europe as accurately as possible. On this basis, we then coordinate measures which we use to jointly increase system security.

Together with Swissgrid, the Swiss transmission system operator, Amprion additionally forms the Coordination Centre for the continental European grid. This ensures that scheduled cross-border exchanges of electricity between the 34 transmission system operators are coordinated at all times, so that the synchronous area is in energy equilibrium. Amongst other things, the Coordination Centre monitors frequency, system time and supply-demand imbalance in real time and coordinates countermeasures in case of critical deviations.

Cybersecurity issues, too, play an increasingly important role as acts of cyberterrorism become more and more common. A European cybersecurity strategy is therefore indispensable for secure grid operation. That is why several transmission system operators in Europe have developed the ENTSO-E Cyber Security Strategy, which Amprion is implementing in specific applications.

GRI 3-3

**PARTNERSHIPS FOR
THE ENERGY SYSTEM
OF THE FUTURE**

The complexity of the energy system demands close cooperation between a large number of players. With this in mind, Amprion is consciously working to build partnerships with other European transmission system operators, distribution system operators, the scientific community and partners in the energy industry. In doing so, we initiate innovation processes that benefit the entire energy sector. Our “Partnerships” guideline describes basic principles for collaboration.



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Innovation management

Amprion wants to play an active role in shaping the transformation of the energy system and we are working on [innovative solutions \(German only\)](#) to support our efforts here – together with national and international partners and in cooperation with industry and the scientific community. Such solutions help us to meet the growing technical, environmental and licensing requirements head on. Concrete insights into Amprion’s company-wide innovation activities are provided by our [Innovation Report \(German only\)](#), which we published for the first time at the end of 2022. This contains information on development projects in our various business areas and takes a closer look at individual technologies.

Amprion has been fostering technological innovations for years. This includes, for example, optimising our operating facilities and working independently on new environmental technologies. Experts from the various technical departments regularly discuss innovations in our “Technology Office”. It is here that we identify areas that require innovations, initiate pilot projects or implement innovative solutions designed to upgrade our transformers, overhead lines or underground cables. For instance, in the year under review we began developing a procedure to evaluate icing of conductor cables. By dovetailing topics, holding regular meetings and insisting that innovations should also be sustainable, we ensure that innovation processes, too, are part of our Sustainability Management system.

Collaboration with distribution system operators

Amprion is working with other German TSOs and numerous distribution system operators (DSOs) to better integrate distributed power producers into our system operation and control processes. As nuclear and

coal-fired power plants are shut down, these processes are taking on an increasingly important role as far as the stability of the grid is concerned. Redispatch measures in particular – that is, the balancing of grid overloads – are rapidly becoming the task of decentralised electricity producers. This is also the subject of a grid operator cooperation called Connect+: an IT system enables data related to redispatch processes to be exchanged with decentralised electricity producers anywhere in Germany. This system is now being operated with significant participation by Amprion.

Since 2020, Amprion has also been pursuing intensive cooperation with E.ON, Europe’s largest distribution system operator. The aim here is to work together at the interface between the transmission and distribution grids to establish an energy system that is climate-neutral, secure and fit for the future. A current project with Westnetz, a distribution system operator forming part of the E.ON Group, concerns the exchange of so-called reactive power. Reactive power is necessary to create and dissipate magnetic fields – a condition of keeping the voltage in the AC grid stable. The potential of renewable energy plants connected to the distribution grid for providing reactive power was investigated in joint field tests. One of the project goals is to improve the exchange of reactive power between DSOs and TSOs.

Innovations in collaboration with the scientific community

Amprion is working closely with the scientific community to develop innovative solutions to support the energy transition. We aim to complete a total of five cooperation projects with research institutions by 2024. One project has already been completed, in which, together with the Technical University of Kaiserslautern, we tested how restarting the grid with 100 per cent renewables can work.

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We also participated in the “Innovations in System Operation up to 2030” ([📄 InnoSys 2030, German only](#)) research project together with transmission and distribution system operators as well as manufacturers of control systems. Amongst other things, this project was set up to test the potential of so-called curative congestion management. This differs from preventive congestion management in terms of the time window in which bottlenecks are eliminated. Curative measures are only used when a failure actually occurs. Higher utilisation of the existing grid is possible in this way and the costs for congestion management are reduced. In 2022, Amprion mapped and tested curative measures in a field test in its own control system. In a few other projects, we are currently investigating how the feed-ins of solar energy can be better forecast – especially during extreme weather events. The findings of these projects are expected in 2024.

Amprion also collaborates with industry and the scientific community on specific projects at European level, for example the EU-funded [📄 InterOPERA \(German only\)](#) project launched in 2023. The main objective of this project, which brings together more than 20 different partners, is to facilitate compatibility and interoperability between high-voltage direct current (HVDC) transmission grids and systems from various manufacturers.



The potential of renewable energy plants connected to the distribution grid for providing reactive power was investigated together with Westnetz.

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KEY DATA SECURE POWER SYSTEM

Table 1 Technical data of the grid

| | 2022 | 2021 |
|------------------------|-----------|-----------|
| Total grid length [km] | 10,275.00 | 10,565.83 |
| Length of routes [km] | 5,623.46 | 5,655.46 |
| Overhead lines | 5,545.90 | 5,578.92 |
| Cables | 77.56 | 76.54 |
| Interconnectors [no.] | 13 | 13 |
| Substations [no.] | 164 | 165 |

Table 2 Installed capacity of grid

| | 2022 | 2021 | 2020 |
|-----------------------------------|---------------|---------------|---------------|
| Total [MW] | 63,853 | 67,995 | 65,286 |
| Non-renewable energies | 35,378 | 41,047 | 39,837 |
| Renewable energies | 28,475 | 26,948 | 25,449 |
| Solar | 14,334 | 12,927 | 11,891 |
| Wind | 11,503 | 11,223 | 10,784 |
| Biomass | 1,511 | 1,595 | 1,507 |
| Hydropower (excl. pumped storage) | 896 | 929 | 1,008 |
| Geothermal | 8 | 8 | 8 |
| Other | 223 | 265 | 251 |

Table 3 Grid availability

| | 2022 | 2021 | 2020 |
|---|----------|---------|----------|
| Grid availability [%] | 100.0000 | 99.9979 | 100.0000 |
| Interruptions/100 km of cable [min] | 0.000 | 0.009 | 0.000 |
| Average duration of interruptions [min] | 0 | 11 | 0 |
| Volume of energy not transported [MWh] | 0.00 | 27.50 | 0.00 |

Table 4 Grid investments

| | 2022 | 2021 | 2020 |
|--|-------|-------|-------|
| Investments in the grid [in € million] | 1,456 | 1,240 | 1,069 |

Table 5 Grid losses

| | 2022 | 2021 | 2020 |
|-----------------------|-----------|-----------|-----------|
| Volume [MWh] | 3,062,881 | 2,667,742 | 2,760,650 |
| Price [€ cents / kWh] | 7.321 | 4.095 | 5.108 |

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OUR APPROACH?

**DIALOGUE AND
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**FIELD OF ACTION
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By developing its grid infrastructure, Amprion is contributing to the success of the energy transition. The various concerns and interests arising in connection with grid expansion must be optimally reconciled here. In order to achieve the common goal of climate neutrality, we advocate the most constructive possible cooperation and a transparent dialogue from an early stage. This applies to not only to communication in the context of grid expansion but also whenever we develop new solutions for our partners and customers.

The energy transition is one of the largest infrastructure projects in the history of the Federal Republic of Germany – and of Europe, too. For it to succeed, the transmission grid must be upgraded and expanded.

Amprion is dedicated to making this happen. That said, we are well aware that this restructuring of the energy system can only work if we have the broad acceptance of the population. The construction of new power lines in particular affects the interests of many people. In respect of our grid expansion, this means we want and need to open a dialogue with stakeholders in the regions concerned at an early stage. We aim to provide transparent information about individual projects, our plans, relevant issues, the necessary approval procedure and opportunities to get involved.

As a rule, we invite people to talk to us locally and tell us what they think well before the formal process begins. In this way, we establish the basis for a continuous dialogue. One aspect of this entails communicating information to people close to their home. In the opposite direction, any comments and advice from the regions can be reflected in our planning from the outset. This is a major priority for us – and we're aware of the local impacts of grid expansion on people's lives.

Furthermore, we seek to build a close collaborative relationship with our customers that goes above and beyond the legal requirement to provide non-discriminatory grid connection. This is because development of the grid infrastructure depends on us cooperating with distribution system operators, industry and electricity producers. We work together on solutions that help protect climate protection and safeguard grid stability.

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GRI 3-3, GRI 413-2

DIALOGUE WITH RELEVANT STAKEHOLDERS

The dialogue with stakeholder groups and their possible engagement in connection with grid expansion is a high priority for Amprion. Amongst other things, we consult with citizens in the project regions, with non-governmental organisations and nature conservation associations, with municipalities and public authorities. We explain to them why new power lines are needed and how they will be planned, approved and built.

Communication in the project regions

The grid expansion has been written into law by parliament. It consists of several different stages all the way from assessing the level of demand (scenario framework, Network Development Plan and Federal Requirements Plan) to the approval of specific projects (for example, regional planning and planning approval procedures) (see also [Grid expansion at a glance](#)). Interested citizens as well as authorities, associations and organisations have a chance to acquaint themselves with the circumstances and get involved at various points in the process. The legislators have made a point of stipulating and providing for this.

Even before the formal process begins – and hence at an early stage of project planning – Amprion starts communicating information on the project in the affected areas. This information is clear and precise (see also [Key premises for Amprion's project communication](#)). Amongst other things, it includes always informing owners, residents and interested members of the public locally about envisaged grid expansion – in a citizen-focused way and close to their home. Specifically, we present our plans and provide information on issues of relevance to our projects, the necessary approval procedure and opportunities to get involved. We also explain whether, and to what extent, the legislator provides for public consultations as well as what legal or technical leeway exists, for example for examining the available options. This expectation management is a significant factor in building resilient relationships with external stakeholders. Early public consultations are also an op-



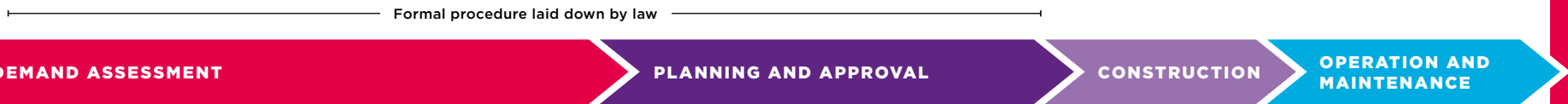
Amprion presents plans to citizens in the project regions close to their homes.

portunity for external stakeholders to get to know their individual points of contact for the further course of the project. In this way, we establish the basis for a continuous dialogue.

Various specialist departments work together closely in an integrated fashion to communicate complex power line construction projects. This work is coordinated by Project Communication in the respective project regions. Amprion has laid down the principles and the underlying philosophy for project communication in an in-house manual. The general nature of the dialogue with our stakeholders is governed by our Stakeholder Management Guideline (see also [Dialogue with our stakeholders](#)).

GRID EXPANSION AT A GLANCE

The grid expansion under way in Germany is being carried out in several stages. The focus here is on the formal procedures to assess the level of demand for new extra-high voltage (EHV) power lines or linked to project planning and approval. Irrespective of the legal framework, Amprion endeavours to reconcile grid expansion optimally with the concerns and interests of society and the environment: even before the formal process begins, we provide comprehensive information on the planned project. After the routes have been constructed, we maintain them in accordance with green standards.



SCENARIO FRAMEWORK

The four transmission system operators use various data sources and calculations to show how electricity generation and demand will develop in the next years. This scenario framework must be approved by the Federal Network Agency.



NETWORK DEVELOPMENT PLAN

The scenarios and network calculations are used to describe where the German EHV grid will need to be strengthened or expanded over the next decade.



FEDERAL REQUIREMENTS PLAN

The power line construction projects from the Network Development Plan that are necessary from the point of view of the energy supply and for which there is an urgent need are incorporated into the Federal Requirements Plan. Only the starting and end points of the power lines are defined, but not the actual route.



FEDERAL SECTORAL PLANNING/ REGIONAL PLANNING*

The approximate corridor is determined.

* The Federal Network Agency or state (Land) authorities act as the permitting authority, depending on where responsibility.



PLANNING APPROVAL

The exact route, the specific location of pylons and all other technical details are clarified in a binding manner. Once the planning approval decision has been made by the approval authority, construction can begin.



PROJECT IMPLEMENTATION

The project construction work is implemented.



OPERATION AND MAINTENANCE

Through Integrated Vegetation Management, Amprion ensures safety and stability of our grid and, at the same time, protects the existing flora and fauna along the overhead lines (see also [Integrated Vegetation Management for overhead lines](#)).

Public information and consultations

Amprion starts communicating information on grid expansion at an early stage (see also [Communication in the project regions](#)).

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INFORMATION**Wide range of information tools**

To enable targeted communication, we use various tools in both analogue and digital formats. We are then in a position to adapt our measures according to the target group and to meet the requirements of specific projects. Following the restrictions due to the Covid-19 pandemic, for instance, many people evidently feel a strong need for face-to-face exchanges locally. On the other hand, public agencies and other interest groups and institutions often prefer digital formats. That way, they can take part in the dialogue during working hours with relatively little effort.

To allow people access to digital information anywhere and at any time, Project Communication commissioned the development of an interactive [online visualisation model](#) (German only), which is currently in use in the EnLAG14 Rhine Crossing project. It puts stakeholders in the picture about where the power lines will actually be built in the project area as well as the different construction methods to be employed for individual sections – whenever they like and at their own pace. The model also provides supplementary information on sensitive issues such as flood protection and nature conservation.

Even after the project has been completed, we remain committed to the regions. A range of ecological compensation measures ensure that the impacts of our projects are offset in a suitable landscape (see also [Offsetting impacts through renaturation](#)).

**KEY PREMISES FOR AMPRION'S
PROJECT COMMUNICATION**

- 1 Proactive, constructive and timely:**
We inform stakeholders at an early stage about the processes and content of all project approval procedures of relevance to them, communicate the scope and limits of consultations clearly in keeping with the principles of good expectation management, proactively seek a dialogue and engage with people in a frank and constructive way.
- 2 Build and maintain trust through continuity:**
Trust is built locally through continuity and a “face” as a permanent point of contact in the project region. The project spokespersons for the regions concerned take a conscientious approach to this role and responsibility.
- 3 Integrate local knowledge at an early stage:**
Local people know their home – our project region – better than anyone else, which is why “listening” is a key factor rather than just “informing”. We incorporate knowledge and advice into the planning process early on by actively sharing information gained within the project team.
- 4 Transparency and credibility:**
We communicate relevant information in a technically sound, transparent and comprehensible manner in line with the motto “involve them and get them on board”.
- 5 Comprehensible:**
We communicate in a way that is appropriate to the target group and make sure that the people we are talking to can actually understand what we’re telling them. We convey technical content such that it can be comprehended by everyone.
- 6 Maintain a good balance:**
We offer ample opportunities for consultation. We give a voice not only to organised groups of citizens but also to individuals with interests not covered by citizens’ initiatives.

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OUR DIALOGUE FORMATS FOR CITIZENS AND MUNICIPALITIES

Citizens' Info market

Dialogue-oriented information and consultation offering for all stakeholders in the project region



Citizens' consultation meeting / Construction consultation

Face-to-face dialogue on various topics



Stakeholder consultations

Informative one-to-one or group consultations with relevant stakeholders



Excursions and on-site visits

On-site meetings in project areas



Infomobile

Information service for small towns and villages for a mobile and flexible dialogue



8,554

visitors took part in dialogue events in 2022.

GRI 3-3

WORKING IN PARTNERSHIP WITH OUR CUSTOMERS

Amprion's grid infrastructure connects large electricity producers to major power consumers as well as distribution system operators. Our customer portfolio comprises some 60 power plant operator, distribution system operator and industrial clients. Our industrial customers particularly include electricity-intensive enterprises in the chemical, steel and aluminium sectors. The distribution system operators connect households, businesses and a large number of renewable generating plants to the energy infrastructure. Amprion maintains reliable and cooperative relationships with all of its customers.

Working together for new solutions

As a transmission system operator, provides access to the EHV grid for its customers from industry as well as the DSO and power plant segments with access to its EHV grid. In accordance with our legal mandate, we act in keeping with objective, transparent and non-discriminatory criteria.

Amprion customers profit from a stable and secure grid. To guarantee this, we buy in system services such as balancing energy. This enables us to balance out the fluctuating infeeds from renewable energy sources and maintain a constant equilibrium between the supply of and demand for electricity. In this way, Amprion secures the electricity supply for customers in its control area and beyond.

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Increasing the amount of renewable energy delivered to our transmission system benefits homes and businesses alike.

Parallel to this, we are working with our partners to develop solutions for integrating renewable energies – a precondition of decarbonising production processes in industry. Together with manufacturers in our grid area, we are therefore planning more efficient connections. We are currently processing additional grid connection requests from photovoltaic systems, wind farms and battery storage facilities on the mainland with capacities of up to around 400 megawatts. For example, not only our own customers but indeed all households that are supplied with electricity via the distribution system operators are benefitting from the increasing feed-in to our transmission system from renewable energy sources. We are thus contributing at all levels to a more climate-friendly society.

Amprion also handles requests to connect data centres to the grid. The number of data centres located in Amprion's grid area is growing steadily as digitalisation advances. They house internet nodes or servers and are the backbone of the digital society. In future, due to the high volumes of electricity these data centres require, Amprion will offer the option either of connecting them directly to the transmission grid or of making sufficient capacity available to supply electricity via the connected distribution system operators. In short, we are facilitating the continued expansion of digital infrastructure – for our own customers and for many other businesses too.

High customer satisfaction

Knowing that our customers are satisfied with the service we provide them means a lot to us. That is why we survey them every two to three years on aspects such as performance, competence, customer orientation, reliability and trustworthiness. The result of the last survey from 2020 showed overall satisfaction of 85 per cent – a further increase compared to the previous survey. This encouraging trend is mainly driven by industrial customers, followed by distribution system operators. On the other hand, satisfaction amongst power plant operators decreased slightly – although the level remains high.

Our customers particularly praised the security of supply as well as our good cooperation, customer care and reliability. They also found the professional quality of our personal support to be very good. However, people would like more information on the impacts of decarbonisation on future supply security as well as on applications for hydrogen. We therefore intend to step up our communication on measures in these two areas. The high overall satisfaction simultaneously gives rise to high customer loyalty. We measure this using a loyalty index on a scale from 0 to 100. In the last survey in 2021, we achieved a score of 80 (see [Table 8](#)).

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In order to better meet the needs of our customers, we have launched a pilot project together with a key account from the chemical industry and a research institute. We are aiming to redefine the “customer journey” and establish a new and sustainable grid concept at the interface with customers. Our number one goal in this context is to complete the expansion of the customer’s grid connection capacity and quality and in the right quality, so that additional grid connection capacity becomes available for customers’ new, greener production processes. We are supporting industry’s path to decarbonised production in this way. Specific recommendations for action arising from the project were presented in 2022 – and suitable steps taken to implement them. Amongst other things, these include accelerating processes and defining clear responsibilities.

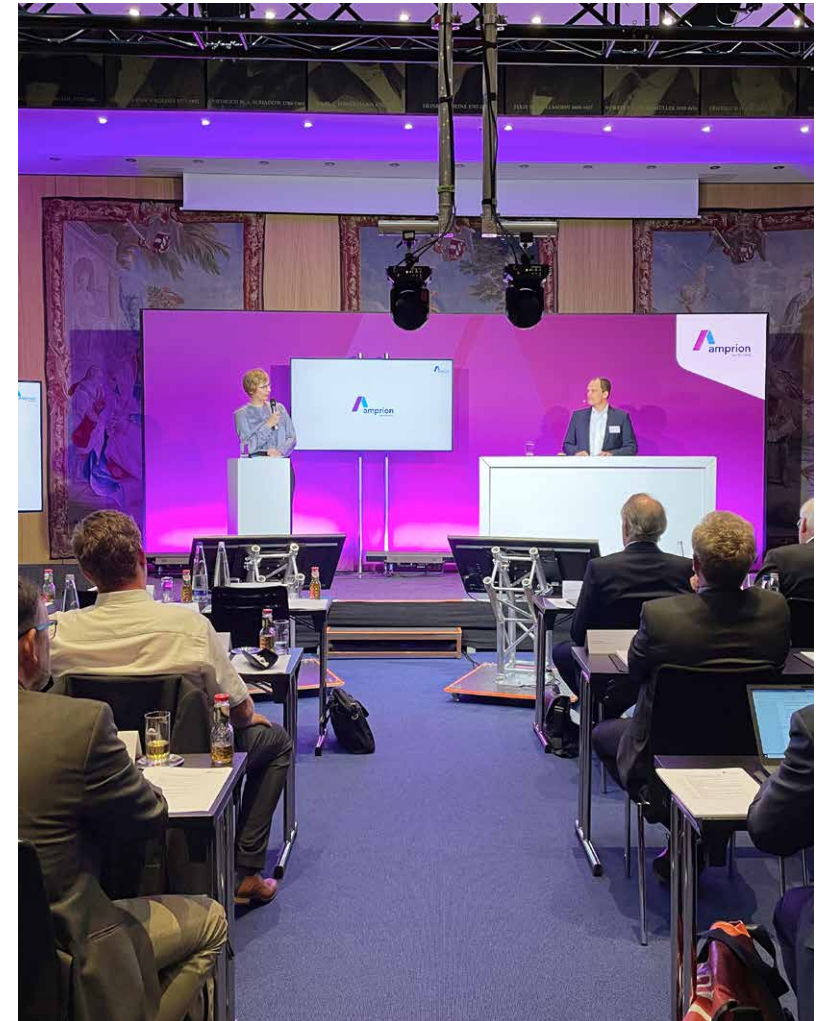
Dialogue with our customers

Amprion interacts closely with its customers. Through recurring information offerings such as our customer magazine NetzImpuls, mailshots on political and grid-related issues, face-to-face meetings, the annual Customers’ Day and online events we keep our customers up to date on all the latest developments.

In addition, Amprion regularly invites customers to a range of other events such as the NetzDialog. The format targets specific customer segments and is extended to power plant operators, distribution system operators or industrial customers on an ad hoc basis. We take advantage to discuss current developments in the energy industry, such as the phasing-out of coal-fired power generation or alternative routes to achieving climate neutrality in Germany and Europe. The path to a climate-neutral energy system was also the main theme of the Amprion Customers’ Day

1,329

customer representatives attended the eight customer events we organised in 2022.



In dialogue with our customers at the annual Customers’ Day

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**OUR DIALOGUE FORMATS
FOR CUSTOMERS**

Amprion Customers' Day

Lecture event with alternating speakers from Amprion and external experts

NetzDialog

Lecture and discussion format on contemporary issues with a workshop-like atmosphere

NetzForum

Event with short presentations and motivational speeches given by in-house and external speakers from the worlds of politics and business as well as moderated discussion of overarching themes relating to the energy industry

DSO Day

Annual dialogue format between TSOs and DSOs for a practice-oriented exchange of ideas

Surveys

Face-to-face customer surveys on aspects such as performance and competence, customer orientation, reliability and trustworthiness

NetzImpuls

Amprion's online customer magazine providing information on grid-related topics and news from the company

(see [Table 9](#))

2022. Amprion intends to emphasise the concept of sustainability even more in its dialogue with its customers.

To enable us to reach customers as effectively as possible, we tailor the event formats to their individual needs. The two NetzDialog 2022 events were conducted once in person – on site at Amprion's System Operation and Control Centre in Brauweiler – and once purely online. 2022 was also the year in which we developed a digital concept for our established customer magazine NetzImpuls. Starting in 2023, the magazine will be distributed to our customer representatives and readers in digital form.

[GRI 3-3, GRI 413-1](#)

ADDED VALUE FOR SOCIETY

A constant and reliable power supply is the basis of our highly industrialised and networked society. Our infrastructure contributes to a functioning energy network – and in the process secures people's quality of life as well as the development of our grid area, helping to maintain Germany's position as a business and investment location.

Reliable and sustainable – any time, right across Europe

Through our work towards a safer and more sustainable energy world, we are contributing to the common good. By actively shaping energy transition, we are assuming responsibility for our society and for sustainable development. Our offshore connections, which in future will allow us to bring offshore wind power onshore, play a central role here (see also [Connecting and interconnecting offshore wind power](#)).

What's more, we are helping to further advance Europe's internal electricity market. To this end, we are working with numerous stakeholders and participating in a number of initiatives to promote cross-border concepts and projects.

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One of them, for example, is ALEGrO, the first direct power link between Germany and Belgium. This DC connection not only provides urgently needed grid capacities for cross-border electricity flows but also plays a part in aligning price levels in European countries. Due to its great significance, the European Union added it to its list of “Projects of Common Interest” (PCIs) in 2018. These cross-border power lines bring additional prosperity and welfare gains to Europe. That is why Amprion is currently planning more interconnectors to Belgium, France, Austria and Switzerland.

Social commitment

Amprion wants to promote on a small scale the glue that holds communities together on a larger scale. Our aim is to connect people and add social value in the local region. We support a range of social issues unrelated to our core business for this reason. One component of our commitment concerns financial support for projects linked to equal opportunities as well as open and non-discriminatory access to education. It was against this background that we developed a donations concept that in future will allow appropriate projects to be selected based on clearly defined criteria. This is the responsibility of Corporate Communications, which evaluates all activities according to such criteria. The allocation of funds is subsequently reviewed by our Compliance department and, depending on the amount of expenditure involved, approved by the Management Board.

Amprion also supports its employees’ social commitment through its “Soziale Projekte im Netz” (SPIN, Social Projects on the Net) programme. Employees who do volunteer work in their free time receive financial compensation. Those projects that have been granted funding so far reflect a broad spectrum of civic engagement – from child education and upbringing through care for the elderly and disabled to

sport, culture and environmental protection. A total of 17 SPIN projects were funded in 2022. They covered everything from repairing second-hand bicycles for the needy through training as a palliative care volunteer to assisting vulnerable homeless people. The SPIN Committee, which is made up of equal numbers of representatives from the employer and employee sides, decides on the allocation of grants.

In 2022, volunteer work by employees was additionally focused on aid for Ukraine. For example, numerous employees participated in a company-wide fundraising campaign called “Amprion Nothilfe Ukraine” (Amprion Emergency Aid Ukraine). More than 20,000 euros were raised in this way overall. Amprion employees also supported the transport of relief goods to Ukraine. Mid-way through the year, Amprion supplied the country’s transmission system operator with two emergency generators to help stabilise the Ukrainian power supply.

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KEY DATA SOCIETY AND CUSTOMERS

**Table 6 Stakeholder engagement:
Municipalities and citizens**

| | 2022 | 2021 | 2020 |
|---|-------|-------|-------|
| Events on project communication (different formats) [no.] | 590 | 578 | 320 |
| Participants at dialogue events for citizens and municipalities [no.] | 8,554 | 5,752 | 4,250 |

**Table 7 Our dialogue formats for citizens
and municipalities**

| | Federal and state politics, esp. local MdL/MdB ¹ | trade associations | Business and infrastructure managers | Public agencies, infrastructure managers | Public in the project region | Citizens' action groups and local alliances | Owners and residents with affected properties | Environmental protection and nature conservation representatives/associations | Media (local and national) | Municipalities, towns, districts |
|---|---|--------------------|--------------------------------------|--|------------------------------|---|---|---|----------------------------|----------------------------------|
| Citizens' Info market | | | | | • | • | • | | • | • |
| Citizens' consultation meeting/ Construction consultation | | | | | • | • | • | • | | • |
| Stakeholder consultations | | • | • | • | • | • | • | • | • | • |
| Excursions and on-site visits | | • | | • | • | • | • | • | • | • |
| Infomobile | | | | | • | • | • | | | • |
| Lecture and discussion events | | • | • | • | • | • | • | • | • | • |
| Owners' forum | | | • | | • | | • | | | • |
| Workshop, round table, workshop process, planning dialogue, etc. | | • | • | • | • | • | • | • | | • |

¹ MdL = (MdL = Member of the State Assembly;
MdB = Member of the German Bundestag)

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INFORMATION**Table 8 Stakeholder engagement:****Customers**

| | 2022 | 2021 | 2020 |
|---|-------|-------|------|
| Participants at customer events [no.] | 1,329 | 1,233 | 710 |
| Customer loyalty [loyalty index] ¹ | 80 | 80 | 79 |
| Brand potential [BPI] ² | 73 | 73 | 76 |

¹ The index measures customer loyalty based on the following criteria: Value for money, mutual trust, respect in relations with customers and willingness to recommend. These criteria are rated on a scale from 0 (minimum customer loyalty) to 100 (maximum customer loyalty). The 2020 values refer to the 2018 survey and the 2021 and 2022 values refer to the 2021 survey results.

² BPI = Brand Potential Index. This measures the success of a brand's current market position. It is rated on a scale from 0 (minimum brand strength) to 100 (maximum brand strength). The 2020 values refer to the 2018 survey and the 2021 and 2022 values refer to the 2021 survey results.

Table 9 Our dialogue formats for customers

| | No. of events | No. of customer representatives |
|------------------------|---------------|---------------------------------|
| Amprion Customers' Day | 1 | 150 |
| NetzDialog | 2 | 186 |
| NetzForum | - | - |
| DSO Day | 3 | 213 |
| Customer surveys | - | - |
| NetzImpuls | 2 | 780 |
| Total | 8 | 1,329 |

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OUR MISSION?



**TO CONSERVE
NATURE.**

**FIELD OF ACTION:
ENVIRONMENT**



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Amprion is enabling the energy transition by operating and extending its grid infrastructure. Protecting the environment and climate belongs to our remit. Across our entire grid area, we implement measures that protect our natural resources and livelihoods: we design our routes and facilities in accordance with green standards and ensure the protection of ecosystems. Parallel to this, we are working to reduce our greenhouse gas emissions along the value chain on the way to climate neutrality.

Through our measures in the field of action entitled “Environment”, we are contributing directly to fulfilling SDGs 13 – Climate Action and 15 – Life On Land.



GRI 304-2

Transmission grids transport electricity over long distances from the generation centres to the consumption centres. In the process, the power lines cross landscapes, forests and meadows, coastal and inland waters – and impact the various ecosystems. Amprion sees protecting these ecosystems as an important part of its remit. As a consequence, we consciously align our operational activities with ecological criteria. This applies both to how we design our routes and to how we operate our substations and our buildings.

For more than 20 years, Amprion has been playing a pioneering role in the area of sustainable route maintenance. This is founded on a holistic approach: we take environmental aspects into account not only when planning but also subsequently when constructing and operating our power lines and other installations. At the core of our corporate commitment is our Integrated Vegetation Management, which has grown over the years and which we are constantly developing in-house and in consultation with key stakeholders. Our efforts towards sustainable route maintenance go beyond simply fulfilling legal requirements.

Thanks to our commitment, numerous habitats have been created along the grid in which protected species, amongst others, have settled. At the same time, we ensure that our overhead power lines have as little impact as possible on the habitats of birds and other protected animal species. Environmental aspects also play a significant role in our substations and underground cable projects, both onshore and offshore. We take special precautions here to protect soils and water resources. Amprion’s comprehensive commitment to the environment simultaneously includes respecting and using resources as efficiently as we can along with energy efficiency and climate protection measures in our plants and facilities. These measures are embedded in our climate strategy – and linked to measurable targets for reducing greenhouse gas emissions.

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POWER GRID IN THE AGE OF NATURE CONSERVATION

Amprion takes the protection of flora and fauna seriously both during construction measures and when operating its grid. In this way, we create the conditions for an environmentally compatible power grid. When it comes to grid expansion, we make as small a mark on the landscape and nature as possible. We then use our route sections to cultivate biotope structures that are typical of the local area. In our “Environment and Energy” guideline, we underpin our claim to protect water, soils and air as effectively as possible through our actions.

[GRI 304-1](#), [GRI 304-2](#), [GRI 304-3](#), [GRI 304-4](#)

Grid expansion in harmony with nature

Grid expansion is indispensable if the energy transition is to succeed. This is the only way we can achieve the climate targets set by Germany and the EU. However, it does mean we have to make interventions in nature. In order to conserve resources and, in turn, protect human life and the environment, Amprion follows the NOVA¹ principle outlined in Germany’s Energy Industry Act (EnWG): we only undertake grid expansion if existing grid capacities cannot be optimised or upgraded. By equipping existing routes with more efficient lines, for example, no further land use is required.

If new route corridors are necessary or to meet other needs such as substations, nature conservation plays a particularly important role – along with economic viability, the interests of the local population and technical concerns. That’s what the law stipulates. Environmental assessments are therefore carried out as part of the approval procedure, with different level of detail depending on the stage of the process. The basis for these assessments is the Environmental Impact Assessment Act (UVPG), which distinguishes between strategic environmental assessments and environmental impact assessments.

Strategic environmental assessments are performed by external environmental experts under the Federal Requirements Plan and the federal sectoral planning or regional planning procedure (see also [Grid expansion at a glance](#)). Specifically, this involves assessing a project’s impacts on protected resources such as animals, plants, soils or water. Amongst other things, the assessment determines whether the project is located in an area with protected status or special biodiversity value. Finally, the corridor that is most compatible with the prevailing public and private interests is defined, taking account of the assessment findings.

The power line’s actual route is subsequently determined within the framework of the planning approval procedure. The environmental impact assessment, which examines the potential environmental impacts of several alternative routes, is carried out in the course of this procedure. The height, type and location of pylons for overhead power lines are established on this basis, for example. At the end is a planning approval decision with the route that has the least impact on human life and the environment after all concerns have been weighed up by the planning approval authority.

Beyond that, Amprion is obliged to carry out so-called ecological compensation and replacement measures for all construction projects (see also [Offsetting impacts through renaturation](#)). These measures must take place in a landscape that is identical to that of the project location. For Amprion, this means identifying and ecologically upgrading such areas, which should ideally be situated within the grid area. Through such measures, flora and fauna find new habitats, which in some cases have become rather scarce. In Dinslaken, for instance, Amprion has created a 20-hectare flower meadow with fruit trees that serves not only as a feeding and hunting habitat for insects and birds but also as a site for breeding and hibernation.

¹NOVA: Grid optimisation first, upgrading second, then expansion

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GRI 304-3

OFFSETTING IMPACTS THROUGH RENATURATION

Wherever new overhead power lines or substations are built, nature and the landscape will change. Amprion is obliged to offset these impacts at suitable locations. One such “ecological compensation area” was created in 2022 in the Wadden Sea National Park on the East Frisian coast. This 19-hectare site is situated in Neßmersiel, Lower Saxony, in the administrative district of Aurich.

The area is a dyke foreland that was originally established for the purpose of land reclamation. Extensive excavation work was necessary to achieve near-nature irrigation and drainage of the area - enabling a natural transition between wet and dry periods and leading to the formation of a salt marsh. This simultaneously serves as a biological boundary between land and sea and provides optimal conditions for the regional flora and fauna. Protected bird species such as the meadow pipit, the reed bunting or the stonechat can find a suitable breeding and resting place there.

This renaturation offsets the impacts both of Amprion’s DolWin4 and BorWin4 offshore connection projects and of BorWin5, which is a TenneT project.

The terrain was lowered by an average of 20 centimetres during the work and connected to tidal processes by means of a naturally designed tideway - a watercourse in the mudflats.



The completion of the main tideway enables tidal interaction of wet and dry periods, so that flora and fauna can develop optimally.



The salt marsh at the end of the construction measures in autumn 2022. The development of the area and its flora and fauna will be closely monitored over the next ten years.



The salt marsh offers excellent breeding and resting conditions for protected bird species like the stonechat.

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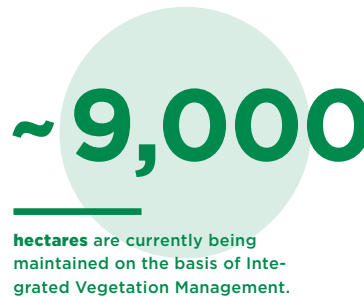
GRI 304-2

Integrated Vegetation Management for overhead lines

Amprion’s overhead lines cross a landscape with a wide variety of vegetation. Building on our many years of experience, all of these routes are today maintained in line with the principles and guidelines of an Integrated Vegetation Management system. In this way, we ensure the trouble-free transmission of power and, at the same time, protect the existing flora and fauna along our overhead lines.

To enhance Integrated Vegetation Management, Amprion brings together know-how from a wide range of different fields. This includes external experts in landscape protection and nature conservation as well as employees specialised in route maintenance. Furthermore, we are in constant dialogue with authorities and nature conservation associations.

Amprion sets out the framework for route maintenance and lays down key principles in an in-house guideline that is currently in preparation. For example, routes through forest areas are designed in such a way that the vegetation adjoining the surrounding forest can develop in the long term without impairing safe operation of the overhead lines. One goal is that our maintenance activities should support and further develop flora and fauna typical of the region. Management plans form the basis for this. In these plans, all areas of our overhead lines are mapped and divided into “maintenance units”. This enables us to adapt the vegetation management measures necessary for safe operation of the grid to the specific local conditions.



Successes for flora and fauna

Ecological route maintenance places special demands mainly on routes that cross forests. To ensure trouble-free operation, it is essential to keep adequate clearance between live conductors and the surrounding vegetation. To this end, we remove fast-growing species of tree and promote various species of shrubs and trees that are slower- and lower-growing. In this way, we also ensure a smooth transition between the route vegetation and the adjacent woodland at the periphery of the protective strip. This creates stable, structured borders to the woods and forests that provide a habitat for a multitude of species and hence upgrade the route.

For example, rare animal species such as the narrow-headed ant and the European stonechat benefit from our ecological route maintenance. As evidence of the success of our measures, sections of our routes have been designated as parts of German or even European protected areas (e.g. areas in line with the Flora-Fauna-Habitat Directive of the EU).

GRI 304-2

Soil protection when laying underground cabling

Amprion relies on innovative power-transmission technologies and takes their environmental compatibility into account. This also applies to underground cables, which – while preserving the landscape – in some cases requires extensive earth-moving measures. Independent experts therefore draw up a comprehensive soil-protection concept for each of our underground cable projects. This serves as a basis for examining and evaluating environmental concerns. A soil expert continuously supervises the construction work and subsequent interim management activities on site in order to ensure that the underground cables are laid in a “soil-friendly” way. Once construction of the underground cable system and site-specific recultivation of the soil have been completed, the land can generally be returned to agricultural use as it was before.

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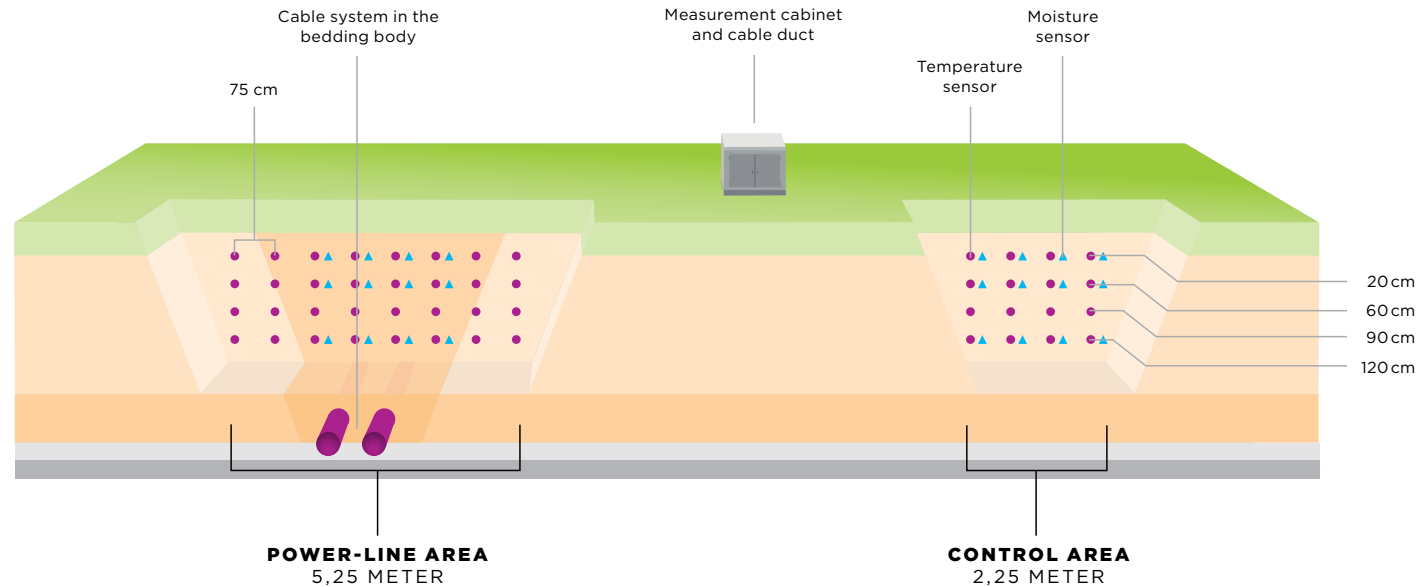
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**CROSS-SECTIONAL VIEW
GROUND SENSORS OF THE ALEGRO-POWER LINE**



Schematic representation

As part of a pilot project for partial AC underground cabling between Dörpen West and Niederrhein, Amprion laid a underground cable in the area around Raesfeld. The project was implemented such that the soil was protected as far as possible. We were thus able to gain valuable knowledge, amongst other things on the environmental impacts of underground cables both during the construction phase and during their present trial operation. Early public participation, a novel soil protection concept and supervision of the construction and subsequent interim management activities by soil experts were key factors here. Around 700 sensors have also been installed in connection with the trial. The idea is that they should measure the level of warming and water balance of the

soil in the immediate vicinity of the cables. In addition, we used drones to take infrared images of cereal and cornfields in the area of the underground cable route between 2019 and 2022. There, too, our assumptions were confirmed: the yield from the areas above the underground cables differed only slightly from those on neighbouring plots of land.

Amprion also employed drones to take photographs of the ALEGRO line, the interconnector between Germany and Belgium, in 2022. We are now supplementing these with continuous measurements of the soil temperature and moisture levels. Unlike the line running via Raesfeld, the ALEGRO line uses extra-high-voltage direct-current (HVDC) transmis-

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The ALEGrO line uses HVDC transmission technology and was installed as an underground cable.

sion technology and was therefore constructed as an underground cable along its entire length. This allows us to collect and analyse valuable soil data for both transmission technologies over a long period of time.

[GRI 304-2](#)

Onshore water conservation

Whether groundwater, lakes or rivers – the protection of waterbodies is of immense importance for humans as well as for nature and wildlife conservation. This is why Amprion takes care to protect key aquatic ecosystems during the construction and operation of substations and power lines. We consistently comply with all laws at EU, federal and state level with regard to water conservation throughout the entire construction and utilisation phase. We also take the protection of aquatic ecosystems into account right from the planning stage.

Water conservation plays a role, particularly when it comes to Amprion’s onshore switchgear and substations: transformers and choke coils are filled with oil for cooling and insulation purposes. Leakage would endan-

ger the groundwater. For this reason, we equip all installations with containment (capture) and protection facilities. For instance, transformers are always positioned on oil-proof drainage surfaces with associated containment basins. These prevent oil from seeping into the ground and contaminating waterbodies in the event of leakage. In the meantime, we are also using cast resin as an oil-free – and thus more eco-friendly – alternative insulating material for small auxiliary transformers in pilot projects.

[GRI 304-2](#)

Environmentally compatible offshore connection

Amprion is connecting offshore wind farms in the North Sea to the transmission grid in order to bring the increasing volumes of offshore wind energy onshore. This will require cables to be laid in sensitive coastal areas such as the Wadden Sea and the North Sea. We are consequently taking measures to protect the habitats there. In the Wadden Sea National Park, for example, we follow the “zero discharge principle” which is laid down in law. That is, we leave nothing behind that does not naturally occur there. When laying the power cables in the Wadden Sea National Park, we adhere to prescribed construction time windows. At the same time, we use a variety of tried-and-tested cable laying methods that protect small animals in and on the seabed as far as possible. As part of our marine conservation efforts, we also show consideration for marine wildlife during construction work: when installing converter platforms out at sea, for example, special noise control measures must be taken to protect the very acute hearing of marine animals such as the common or harbour porpoise.

Apart from this, we create suitable ecological compensation areas to offset interventions in the course of offshore development (see also [Offsetting impacts through renaturation](#)). Amprion is additionally involved in the Offshore Coalition for Energy and Nature ([OCEaN](#)), in which we join forces with other players to protect marine ecosystems. OCEaN is a coalition of transmission system operators, NGOs and offshore wind industry actors.

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Amprion has been committed to bird protection for over 25 years.

[GRI 3-3, GRI 304-2](#)

SPECIES PROTECTION

By following a comprehensive Integrated Vegetation Management programme, Amprion creates new habitats on its power line routes. These are connected with one another along our extensive transmission grid. The resulting network of biotopes prevents “islanding” of species and fosters their development. For us, species protection also means protecting animals while our overhead lines are in operation. In this context, we are particularly committed to the protection of birds.

Commitment to bird protection

The protection of birds in the vicinity of our overhead lines is a major issue for Amprion. We held a conference in 2018 entitled “Bird protection on extra-high-voltage overhead lines”. The following year, we published a transcript of the discussions held and the presentations given by experts at the conference. Insights into our commitment can also be found in our [Bird Protection at Amprion brochure](#) (German only) published in 2022.

Our acclaimed bird protection work has developed over 25 years and is characterised by strong liaison and teamwork with scientists and nature conservationists. Our activities originally kicked off with joint research projects conducted with ornithological field stations, universities and associations, in which we investigated the dangers that our overhead power lines can pose to birds. Subsequently, together with experts, we initiated our own bird protection programme. This gave rise to measures that are now an integral part of our overhead line management - including the development of bird protection markers. Thanks to the bird protection markers attached to the earth cables above conductor cables, the collision risk for many species can be reduced locally by up to 90 per cent. As part of our bird protection programme, Amprion also equips suitable route sections with nesting aids on pylons. These are one outcome of our nest management concept, which we are currently developing in collaboration with ornithological experts. Our measures enable

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various species such as the white stork, kestrel and peregrine falcon to breed on pylons. In 2022, we additionally developed new stainless steel nesting boxes for kestrels and peregrine falcons.

Our Integrated Vegetation Management likewise contributes directly to successes achieved in bird protection – such as in Mörfelden-Walldorf in the state of Hesse. As a result of many years of managing heathland in the area, the populations of rare bird species there are now developing positively. The overhead line has therefore been integrated into the Special Protection Area (SPA; in accordance with the EU Birds Directive) known as “Mönchbruch und Wälder bei Mörfelden-Walldorf und Groß-Gerau”. Species such as the stonechat, red-backed shrike, wood-lark and wryneck are reaping the benefits. Amprion also carries out voluntary renaturation measures. In 2017, for example, we converted formerly intensively farmed arable land not far from Dortmund-Kruckel into a grassland habitat – and have been monitoring its development ever since. Numerous bird species, insects and soil organisms find new habitats in this one-hectare area.

To ensure effective bird protection, Amprion simultaneously cooperates with environmental associations as important, expert partners. Together with other grid operators, for example, we support the “Bird Hotline” portal operated by the German partner organisation of BirdLife (Naturschutzbund Deutschland e.V., or NABU for short) on behalf of the Renewables Grid Initiative (RGI). The aim is to help identify route sections that are particularly relevant from the point of view of bird protection. For this purpose, grid operators and NABU are now, for the first time, jointly evaluating data. In 2022, the project was extended for another three years until 2025. The 2022



kilometres of our power lines are now equipped with bird protection markers.

conference “Shared Airspace: Towards a Bird-Friendly Grid” was organised within the framework of this partnership and was also attended by Amprion, demonstrating our commitment in the field.

In the coming years, Amprion will moreover be involved in the EU-wide bird protection project [LIFE EUROKITE](#). Since 2020, this project has been tracking movement profiles of birds of prey such as the red kite. On this basis, the researchers are identifying critical areas across Europe in order to reduce threats to these birds throughout their geographic range.

Contributing to biodiversity through flowering meadows

Amprion is committed to insect protection and promotes biotopes for insects in its own grid area by planting flowering meadows. Among other things, we turn the numerous and extensive areas of land on which our facilities stand over to this purpose. In this context, Amprion has developed a flowering-meadow concept on its own initiative. With the aid of this concept, we are examining to what extent we can create flowering meadows and set up insect nesting aids on our company premises. Since the launch of the flowering-meadow concept in 2019, new habitats have been created in a total of 20 flowering meadows located, for example, at our substations in Dortmund and Opladen and at our sites in Brauweiler, Föhren near Trier and Lotte near Osnabrück. Ten flowering meadows have been added in the last two years alone (see [Table 14](#)).

GRI 3-3

RESOURCE EFFICIENCY AND CLIMATE PROTECTION IN OUR OPERATIONS

At Amprion, environmental protection begins “at home”, that is in-house. The climate strategy we developed in 2021 laid the foundation for reducing greenhouse gas emissions based on measurable targets (see also [Our climate strategy](#)). At the same time, we are working to use resources as efficiently as possible.

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Our “Environment and Energy” guideline summarises Amprion’s key principles of environmental management. To enable us to implement these principles effectively in practice, we attach great importance to ensuring that we apply recognised standards. Our corporate environmental management system is therefore certified in accordance with international standard ISO 14001. A separate in-house policy unit that includes the Environmental Protection Officer is responsible. The operational activities involved in corporate environmental protection, as an element of environmental management, are performed by the relevant specialist departments.

Respecting and conserving resources

In Amprion’s core business, expanding the grid infrastructure uses the most resources. Steel, concrete, aluminium and copper in particular are required in the construction of overhead lines, underground cables, substations, transformers and other installations. After construction, material usage is largely limited to the maintenance of power lines and installations. Even if our consumption of resources for maintenance is only modest, we focus from the start using these resources efficiently. We are deliberately choosing durable materials to build our power lines and, where possible, recycling them once they are no longer in use. What’s more, greener materials such as FSC/PEFC-certified paper are increasingly finding their way into our administrative buildings.

GRI 306-3

Resource conservation as a goal

The most important resources for Amprion are steel, concrete, copper and aluminium as well as gas, oil and coal. We want to use them as efficiently as possible. To this end, we are currently working to identify potentials for reducing resource usage.

When we use resources, we make sure that we handle all reusable and recyclable materials with care. Where possible, we avoid waste or promote its recycling. All unavoidable waste is collected separately and



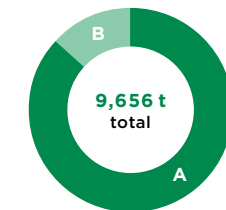
Using materials based on actual needs avoids waste and conserves resources.

disposed of in compliance with legal requirements. Among the typical wastes generated by transmission system operators are steel-reinforced aluminium conductors, copper, steel and insulating oils. For these types of waste, we have developed appropriate recycling channels. We employ a waste balance sheet to record all waste-related data, such as the type, quantity and whereabouts of wastes, which we regularly evaluate. In this way, we create full transparency vis-à-vis the authorities.

In 2022, Amprion generated some 9,656 tonnes of waste. The majority of this – around 4,662 tonnes – consisted of non-hazardous waste materials. In all, 86.8 per cent of the total volume of waste generated was sent for recycling (see [Table 13](#)).

TOTAL VOLUME OF WASTE

Total quantity of waste, share recovered/recycled and disposed



- A** 86.8% – share recovered/recycled
- B** 13.2% – share disposed of

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[GRI 302-1, GRI 302-4](#)

Increasing energy efficiency in our operations

Amprion requires energy for its operational processes. Diesel, petrol, natural gas and electricity are used as energy sources. The bulk of the electricity we consume is attributable to the operation of our substations and switchgear. Apart from this, electricity and natural gas are employed to run and heat our administrative buildings. Amprion relies on petrol and diesel for our fleet of vehicles, which technicians use to get to the grid facilities in order to carry out servicing or repair work in the event of a malfunction or outage.

To enable us to utilise energy as efficiently as possible and identify potential savings, we operate an energy management system that is certified in accordance with ISO 50001. Amongst other things, our joint “Environment and Energy” guideline commits us to continuously improving our energy efficiency. We keep an eye on data centres, vehicles and heating systems, ventilation systems, HV equipment and buildings for this purpose, for instance. We are also keen to identify potential savings with the help of an improved measurement and reporting concept which we are in the process of developing. In 2022, energy consumption (excluding grid losses) sunk by 1.7 per cent compared to the previous year to 149,573 megawatt hours (2021: 152,140 megawatt hours¹) (see [Table 10](#)).

Our pursuit of energy efficiency is additionally reflected in the design of our buildings. In principle, all new buildings at Amprion provide the highest level of energy efficiency. This is also the case with the new Project Centre that opened in spring 2023. Around 70 per cent of its energy needs will be met by renewables – thanks to a high-performance photovoltaic system on the roof, for example, and a geothermal plant underneath the building. Whenever Amprion constructs new buildings, we always include PV systems in our plans. And we tap the potential offered by the roofs of existing buildings, too. Further savings can be

achieved by utilising waste heat to heat buildings. In this context, a feasibility study carried out in 2022 on a new building at our Hoheneck site showed positive results. Another energy-saving measure concerns the replacement of transformers with new models featuring more efficient cooling systems and lower electricity consumption at the end of their useful life.

New building in the age of environmental protection

Our new System Operation & Control Centre at our Brauweiler site is a model of environmentally conscious building. It sets standards both in the use of renewable energies and waste heat and as regards water management. Like all new buildings, it has a photovoltaic system on the roof. The building meets most of its heating needs with waste heat from the utility rooms. A modern rainwater sewer system was likewise installed as part of the construction work. Around 60 per cent of all precipitation on the property can thus seep into the surface – naturally filtered by an infiltration trench. When it comes to the building itself, this is true of every single drop of rainwater.

[GRI 305-1, GRI 305-2, GRI 305-3](#)

Climate protection in our operations and along the value chain

Climate protection is part of Amprion’s social responsibility. We face up to this responsibility in our own operations and along our value chain. For instance, we are constantly working to reduce greenhouse gas emissions.

Our climate strategy includes concrete and measurable reduction targets (see also [Our climate strategy](#)). We are aiming to reduce our direct and indirect greenhouse gas emissions (Scope 1 and 2) by at least 63 per cent by 2032 compared to the baseline year 2017. We are aiming to

¹The energy consumption figure reported for 2021 was an estimate and was adjusted in the year under review based on the actual value.

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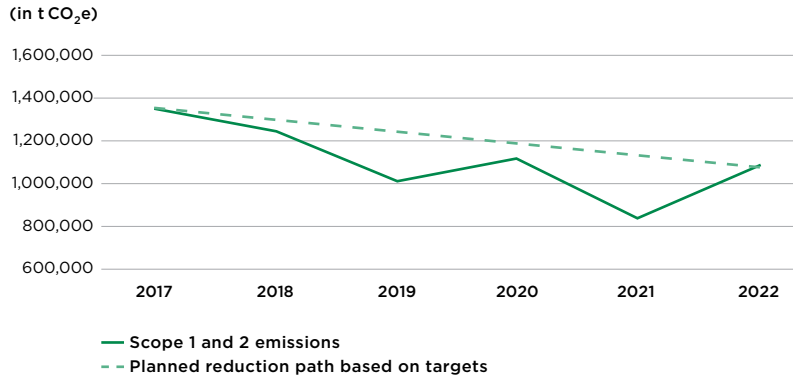
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reduce the greenhouse gas intensity of our upstream value chain (Scope 3) by 58.1 per cent by 2032 compared to the baseline year 2021, based on the length of routes in kilometres that is expanded and upgraded annually in our transmission grid. In order to monitor these targets and identify further potential savings, Amprion measures its greenhouse gas emissions at regular intervals. In addition to carbon dioxide (CO₂) we also take account of other greenhouse gases such as sulphur hexafluoride (SF₆) and convert them into CO₂ equivalents.

PLANNED AND ACTUAL REDUCTION OF SCOPE 1 AND 2 EMISSIONS COMPARED



The rise in 2022 was driven by increased grid losses. These mainly occurred owing to the low availability of French nuclear power plants in some summer months coupled with increased electricity transports through Amprion's control area. In the future, as the decarbonisation of power generation accelerates, we anticipate a return to significantly lower Scope 1 and 2 emissions.



The Project Centre that opened in spring 2023 will meet 70 per cent of its energy needs with renewables.

The majority of our greenhouse gas emissions are related to grid losses (Scope 2 emissions): power lines heat up, so that less energy reaches customers. Transmission system operators compensate for these losses by purchasing additional electricity – regulatory rules require that this electricity is based on the current energy mix. The remaining operational greenhouse gas emissions (Scope 1) are mainly due to energy consumption in buildings or our vehicle fleet as well as emissions of SF₆ from existing facilities. This gas is used for insulation in switchgear and equipment. Although it only ever escapes in small quantities, it has high

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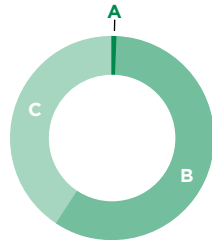
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global warming potential. Since 2021, we have additionally been recording emissions that occur along the value chain (Scope 3). At Amprion, these mainly result from purchases of materials for overhead lines and underground cables or from the construction of these lines.

In 2022, Amprion generated greenhouse gas emissions of around 1,832,182 tonnes of CO₂ equivalents (2021: 1,989,171¹). Scope 1 emissions accounted for around 12,112 tonnes of CO₂ equivalents in the year under review (2021: 9,118¹). The increase compared to the previous year was principally due to higher SF₆ losses. The majority of our greenhouse gas emissions, however, are Scope 2 emissions. In 2022, these amounted to 1,073,148 tonnes of CO₂ equivalents, significantly higher than in 2021 (2021: 933,710¹). One major driver here was the increase in grid losses owing to the low availability of French nuclear power plants in some summer months coupled with increased electricity transports through Amprion's control area. Our Scope 3 emissions can be assigned to categories 1 to 7 as defined by the Greenhouse Gas Protocol. In 2022, they amounted to around 746,922 tonnes of CO₂ equivalents (2021: 1,046,343) (see [Table 11](#)).

GREENHOUSE GAS EMISSIONS

Emissions, shares
Scope 1/2/3 in t CO₂e



- A** 12,112 t CO₂e - Scope 1
- B** 1,073,148 t CO₂e - Scope 2
- C** 746,922 t CO₂e - Scope 3

GRI 305-5

Reduction of operational emissions

Regarding our direct emissions (Scope 1), we are working very hard on reducing SF₆ emissions. Since the introduction of an SF₆ management system, the SF₆ gas in equipment that is to be scrapped has been extracted, reconditioned and reused in new devices. As a result, we now no longer need to purchase as much SF₆ to fill new HV equipment. Furthermore, under the umbrella of ENTSO-E, we are helping to find better and safer ways to handle SF₆ gas and are contributing to research into alternative insulants. In this context, Amprion undertakes to limit the annual discharge of SF₆ used in existing plant to less than 0.5 per cent. In 2022, SF₆ losses at Amprion were as low as 0.18 per cent (2021: 0.11). Although this was more than in the previous year, the figure is still well below the target threshold. The increase can be accounted for by two unexpected technical defects in circuit breakers (see [Table 12](#)).

At the same time, we are working to increase the use of SF₆-free HV equipment. For example, we are currently testing SF₆-free voltage transformers on our 220 and 380 kilovolt (kV) lines. Other options for using SF₆-free HV equipment are at the planning stage. We also regularly evaluate future handling possibilities for SF₆ within the framework of an in-house concept.

In order to also reduce emissions during operation, we have installed geothermal heat pumps in a number of our buildings. Parallel to this, we are working on a mobility concept that includes the expansion of our e-charging infrastructure and the purchase of electric vehicles for Amprion's fleet. Charging stations have already been installed at key buildings such as our headquarters or the new Project Centre, for use by Amprion's pool and fleet cars as well as privately by employees and visitors. Since 2022, electric vehicles have also been added to Amprion's fleet.

¹The emissions figures reported for 2021 were estimates and were adjusted in the year under review based on the actual values.

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GRI 302-1, GRI 302-3

Table 10 Energy consumption¹

| | 2022 | 2021 | 2020 |
|---|----------------------------|----------------------------|----------------------|
| Total [MWh] | 149,573² | 152,140³ | 146,920 |
| Non-renewable sources | | | |
| Diesel ⁴ | 8,739 | 8,547 | 7,901 |
| Petrol ⁴ | 108 | 77 | 55 |
| Natural gas | 7,377 | 9,023 | 8,333 |
| Electricity | 73,150 | 73,837 | 130,631 ⁵ |
| Renewable sources | | | |
| Electricity | 60,199 | 60,656 | - |
| Energy intensity [total energy consumption (excl. grid losses) in MVA/installed capacity in MVA] ⁶ | 2.35 | 2.37 | - |
| Share of renewable energy sources out of total energy consumption [%] ⁵ | 45.1 | 45.1 | - |

¹ Excl. grid losses.² The consumption figures included in the total for diesel, natural gas and electricity were partly estimated on the basis of the previous year's figures.³ The estimated values for 2021 in the last report have been corrected in this report based on actual consumption.⁴ Excludes fuel consumption (diesel and petrol) for business travel with own cars or rental vehicles.⁵ Renewable and non-renewable energy sources have only been reported separately since 2021.⁶ Calculated for the first time in 2021.

GRI 305-1, GRI 305-2

Table 11 Greenhouse gas emissions

| in t CO ₂ e ¹ | 2022 ² | 2021 ³ | 2020 |
|--|-------------------|-------------------|------------------------------|
| Total | 1,832,182 | 1,989,171 | 1,115,915⁵ |
| Scope 1 | 12,112 | 9,118 | 8,894 |
| Fleet fuel ¹ | 2,250 | 2,220 | 2,123 |
| Forklifts ¹ | 23 | 26 | - |
| Gas consumption ¹ | 1,490 | 1,822 | 1,683 |
| SF ₆ losses ⁴ | 8,254 | 5,039 | 5,084 |
| Emergency generators ¹ | 49 | - | - |
| Refrigerant losses from A/C units ⁴ | 12 | 11 | 4 |
| Other (e.g. small equipment such as chainsaws) | 34 | - | - |
| Scope 2^{6,7} | 1,073,148 | 933,710 | 1,107,021 |
| Own consumption of electricity | 46,634 | 47,073 | 52,383 |
| Grid losses | 1,026,514 | 886,637 | 1,054,638 |

¹ Emission factors for energy sources according to the Federal Office of Economics and Export Control, as at 30.11.2022.² These figures are based on estimated consumption and should be regarded as provisional.³ The estimated values for 2021 in the last report have been corrected in this report based on actual consumption.⁴ Emission factors based on the EU F-gas Regulation (517/2014 EU).⁵ Value excl. Scope 3 emissions.⁶ Since 2021, the emission factor for the German electricity mix according to ENTSO-E 2020, which is published by the German Association of Energy and Water Industries (formerly the Federal Environment Agency), has been used for the calculation.⁷ Location-based calculation.

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GRI 305-3

Table 11 Greenhouse gas emissions

| in t CO ₂ e ¹ | 2022 ² | 2021 ³ | 2020 |
|--|--------------------|-------------------|------|
| Scope 3⁵ | 746,922 | 1,046,343 | |
| Scope 3 Category 1 (purchased goods and services) | 411,060 | 475,409 | |
| Scope 3 Category 2 (capital goods) | 188,034 | 434,940 | |
| Scope 3 Category 3 (fuel- and energy-related activities) | 140,945 | 129,111 | |
| Scope 3 Category 4 (upstream transportation and distribution) | 1,977 ⁴ | 1,977 | |
| Scope 3 Category 5 (waste generated in operations) | 2,909 ⁴ | 2,909 | |
| Scope 3 Category 6 (business travel) | 134 ⁴ | 134 | |
| Scope 3 Category 7 (employee commuting) | 1,863 ⁴ | 1,863 | |
| Combined greenhouse gas intensity for Scope 1 and 2 [GHG emissions (t CO ₂ e)/ volume of transport (MWh*km)] ⁵ | 46.75 | 44.99 | |
| Greenhouse gas intensity for Scope 3 [GHG emissions (t CO ₂ e)/ length of routes expanded and renewed annually (km)] ⁵ | 6,219.17 | 7,533.07 | |

¹ Emission factors for energy sources according to the Federal Office of Economics and Export Control, as at 30.11.2022.

² These figures are based on estimated consumption and should be regarded as provisional.

³ The estimated values for 2021 in the last report have been corrected in this report based on actual consumption.

⁴ No separate calculation for 2022 because negligible compared to the other categories.

⁵ Calculated for the first time in 2021.

GRI 305-1

Table 12 SF₆

| | 2022 | 2021 | 2020 |
|--|-------|-------|-------|
| SF ₆ emitted [kg] | 362 | 221 | 223 |
| SF ₆ losses [t CO ₂ e] | 8,254 | 5,039 | 5,084 |
| SF ₆ losses [%] | 0.18 | 0.11 | 0.13 |

GRI 306-3, GRI 306-4, GRI 306-5

Table 13 Waste

| | 2022 | 2021 | 2020 |
|------------------------|--------------|---------------------|---------------|
| Total [t] | 9,656 | 23,297 | 11,678 |
| Non-hazardous waste | 4,662 | 11,480 | 9,587 |
| Hazardous waste | 4,994 | 11,817 ¹ | 2,091 |
| Recovery/recycling [%] | 86.8 | 73.6 | 83.3 |
| Disposal [%] | 13.2 | 26.4 ¹ | 16.7 |

¹ A large proportion of the hazardous waste and waste for disposal is due to construction measures for the new Project Centre 2022 in Dortmund.

Table 14 Biodiversity

| | 2022 | 2021 | 2020 |
|--|-------|-------|-------|
| Maintenance based on Integrated Vegetation Management [ha] | 9,000 | 9,000 | 9,000 |
| Flowering meadows [no.] | 20 | 11 | 10 |
| Kilometres of power line with bird markers | 358 | 333 | 332 |

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**COMPETENT
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FIELD OF ACTION:
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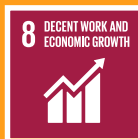
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Amprion keeps the grid safe and stable – while paving the way for a climate-neutral energy system. More than 2,300 Amprion employees make this possible. We create attractive conditions, enable safe and healthy working, promote diversity and a corporate culture based on togetherness and systematically develop potential.

Through our measures in the field of action entitled “Employees”, we are contributing directly to fulfilling **SDG 8 – Decent Work and Economic Growth**.



Transmission system operators are active in an environment that is undergoing a massive transformation. Technical, regulatory and digital innovations make it necessary to constantly adapt to new circumstances.

Amprion is facing up to the growing challenges with a diverse and motivated workforce. More than 2,300 people – this being about nine per cent more than in 2021 – are employed at our headquarters in Dortmund, the System Operation & Control Centre in Brauweiler (Pulheim) near Cologne as well as in Ludwigsburg and at more than 30 regional operating sites and project offices. Amprion brings together people with a wide variety of professions at these sites, ranging from engineers, master craftspeople and technicians to landscape ecologists, project managers and IT experts (see [Table 15](#)).

This breadth of professional experience combined with the different backgrounds of our employees is a reflection of Amprion’s diversity. It makes it possible to pool different fields of expertise and to work on solutions from an interdisciplinary viewpoint. In our day-to-day business, we therefore also promote cross-disciplinary work. Attractive jobs and a safe and healthy working environment are the foundation on which we build a motivated, efficient and united workforce at Amprion. We rely on recognised occupational health and safety standards to protect the health of our employees as best possible while working on our grid. In addition, Amprion pursues a needs-oriented personnel development policy. We are continuing to build and expand the skills required to transform the energy system and are developing our employees in line with their needs and potential. To increase the level of employee satisfaction within the company, we help each individual find their own work-life balance.

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[GRI 3-3](#)

OCCUPATIONAL HEALTH AND SAFETY

A safe workplace is the basis for motivated, satisfying and successful work by healthy employees. As a reflection of the issue's immense relevance, the Management Board have established an occupational health and safety philosophy. Its primary objective and key message is that all employees and our service providers should go home as healthy as when they came to work. To ensure this, Amprion has put an occupational safety management system and a company health management system in place in which it lays down parameters, processes and measures.

[GRI 403-1](#), [GRI 403-2](#), [GRI 403-4](#), [GRI 403-8](#)

Standards for safe working

Numerous activities at Amprion involve a high risk potential. They include electrical work in the stations and in the area around the power lines, which sometimes has to be carried out at great heights, as well as when handling heavy loads. Amprion has installed a certified occupational health and safety management (OHS) system as one way of restricting workplace hazards to a minimum. The OHS system comprises occupational health and safety regulations and requirements for all Amprion departments and employees. It is regularly audited and its effectiveness reviewed by the responsible employers' liability insurance association (BG ETEM), amongst other things based on the international DIN ISO 45001 standard. An in-house OHS officer also continuously monitors whether the OHS system meets current in-house and external requirements, is communicated throughout the company and is implemented in the specialist departments.

An Operational Safety Manual contains overarching OHS documentation in the form of an Amprion in-house guideline. In particular, it helps executives fulfil their management obligations linked to occupational health and safety. These obligations are specified, for instance, in at-

tached procedural instructions and guidelines (e.g. forms, reporting frameworks and procedures). Together they ensure that OHS is implemented consistently company-wide.

As part of OHS, Amprion continuously assesses risks and opportunities and sets appropriate targets. These are taken into account directly when developing underlying processes. To enable us to further optimise our high safety standards, we constantly evaluate the effectiveness of existing processes and derive suitable improvement measures. Our Occupational Health and Safety in-house policy unit provides individual departments with numerous tools for this purpose. These support our specialist departments, for example in connection with risk assessments or the procurement of personal protective equipment (PPE) appropriate to requirements.

Amprion also regularly checks the effectiveness of measures as well as their degree of implementation. Management reviews are carried out for this purpose by the Occupational Safety and Health (OHS) Committee with the participation of all specialist departments. Overarching issues related to occupational health and safety are discussed at these meetings, safety-relevant events analysed and, where necessary, inter-departmental measures derived. Regular occupational health and safety audits likewise help to guarantee a high safety standard. Recurring in-house and external auditing and certification measures play a role here too.

Another central element of OHS is employee involvement. Amongst other things, this takes the form of quarterly Occupational Health and Safety Committee meetings as well as regular safety meetings and inspections. In addition, our ideas management system provides an opportunity to submit proposals and solutions of relevance to occupational health and safety.

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[GRI 403-2](#), [GRI 403-4](#), [GRI 403-5](#), [GRI 403-7](#), [GRI 403-9](#)

Raising occupational health and safety awareness

Occupational health and safety is a daily companion and a crucial factor that is firmly anchored in the minds of all employees. Qualification and training measures, in particular, contribute to this. These are specifically adapted to the respective area of responsibility and communicated to employees using formats developed both externally and in-house such as seminars, workshops and videos. Through our “Sicher im Netz” (Safety in the Grid) seminar series, for example, we strengthen the role of plant managers when it comes to workplace safety. Apart from developing technical and social skills, this also promotes networking and an exchange of experiences among the plant managers. In 2022, Amprion additionally developed an e-learning concept for imparting knowledge relevant to occupational health and safety to managers in a practical and standardised way.

Self-responsibility plays a major role when implementing measures and communicating our occupational health and safety philosophy. Near-accidents are a good case in point here. According to our OHS philosophy, the managers in our specialist departments are required to actively reflect on occupational health and safety together with their employees and work out suitable solutions. The upshot: short lines of communication, pragmatic approaches and ultimately more mutual trust. This approach is simultaneously consistent with the principle of our occupational health and safety philosophy whereby unsafe conditions are addressed and rectified immediately. Critical near misses or near misses that affect more than one department are handled and documented at a higher level with the involvement of OHS.

Amprion’s occupational health and safety philosophy also includes the active involvement of contracted service providers in the exchange of experience. We therefore invite main contractors in, alternately, substation and power line construction to an annual workshop. This format creates a sound, common basis for work with direct contact persons.

Our certified occupational safety management sets the basis to ensure safe working conditions for activities like electrical engineering work at height.



More specifically, the aim is to discuss current issues and potential dangers and improve safety-critical work processes, in order to reduce the number of accidents in the long term. Another important goal of these exchanges of experiences is to communicate lessons learned to Amprion’s service providers as the need arises.

In 2022, a total of ten work-related and commuting accidents were recorded at Amprion (2021: eleven). This represents a slight decrease compared to the previous year despite a significant increase in the number of staff as well as in construction activities. Most of these accidents at, or on the way to and from, work (LTI¹) were unrelated to concrete work processes. Only five accidents occurred while actually carrying out work. A total of 23 near-accidents were also reported to the Occupational Health and Safety in-house policy unit in the year under review. During the same period, work-related and commuting accidents among contractors’ employees increased significantly compared to the previous year with a total of 51 (2021: 19). The reason for this is that in the year under review more projects were handled (see [Table 19](#)).

¹ Lost Time Incidents

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[GRI 403-3, GRI 403-6](#)

Health promotion

Amprion not only creates a safe working environment but also promotes the health of its employees. To this end, we also provided numerous preventive health care offerings in 2022. These included health days, various prevention courses (for example, diabetes) and cancer screenings (for example, bowel and skin). In order to keep these services up and running during the pandemic, we increasingly resorted to online and virtual measures. Apart from this, Amprion actively involves its employees in matters of health promotion. Staff can submit suggestions in relation to health promotion to the Health and Prevention Committee, the company's Health Management team or when discussing the issues with responsible contacts at the sites.

All Amprion employees also have access to an occupational healthcare service, which offers occupational health check-ups and preventive measures at suitable nearby health centres. Each employee can moreover take advantage of a whole range of supplementary medical services, such as comprehensive vaccination advice and prevention.

[GRI 3-3](#)

ACTIVE PERSONNEL DEVELOPMENT

At Amprion, teams with diverse experience, perspectives and skills master the growing complexity of our day-to-day work. At the same time, it is important to adjust to the new developments and technologies being introduced. This is why Amprion believes and invests in active personnel development. By doing so, we are empowering our employees to develop the best possible solutions for a climate-neutral, secure and efficient energy system.

Extensive entry opportunities

Amprion offers a range of entry opportunities in commercial, technical and IT-related occupations. In addition to regular vocational training, we also offer degree programs in Germany's "dual system". This system combines practical, on-the-job training with academic studies at a university. This allows students to gain a profound insight into precisely what we do and get to know us, as their future employer, inside out while also studying for their bachelor's degree. Since 2022, Amprion has additionally offered a trainee programme. This is aimed at graduates with a business or technical background. In the course of the two-year programme, trainees spend time in different departments and at different Amprion sites - and in the process acquire an intimate knowledge of work at Amprion on the basis of a personal plan. By offering this option, Amprion aims to develop talented people for specific tasks and responsibilities while at the same time countering the demographic forces at play from within the company. Industrial placements and student traineeships, which we offer in many different fields all year round, also play their part towards achieving the latter goal.

At the end of 2022, 47 people were undergoing vocational training at Amprion, 13 of whom were in their first year. A total of ten trainees successfully completed their training in 2022. Nine of them then continued their careers at Amprion. On top of this, six young candidates embarked on the trainee programme in October 2022 (see [Table 18](#)).

[GRI 404-2, GRI 404-3](#)

Personnel development - needs-based, individual and targeted

The complex tasks that have to be carried out at Amprion require particular competencies, specialised know-how and a wide range of skills and abilities. We impart such knowledge



per cent more employees than in 2021: we also welcomed numerous new people to Amprion in 2022.

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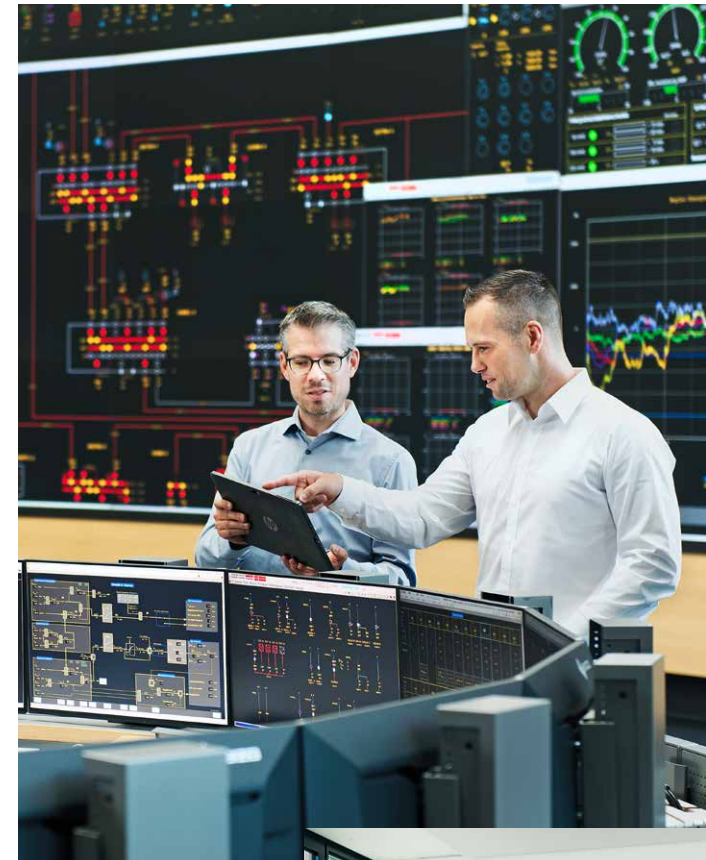
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in training courses, seminars or workshops that are aligned with our corporate goals and our legal mandate. Personal and professional development of employees is complemented by various opportunities for professional engagement. These include active participation in (specialist) committees, involvement in external development measures and a project-related dialogue with research institutions. Thanks to a forward-looking personnel development policy, Amprion has been able to fill a large number of management positions from within the company.

In view of the rapid changes under way in the energy sector, employees must be optimally prepared for the tasks ahead. For this reason, our employees begin their continuing professional development from the very moment they join the company. Onboarding helps new colleagues to find their way around quickly. In addition, buddies supervise and support new employees through their first steps at the company. At the beginning of this initial training phase, Amprion invites them to interdisciplinary informational events such as “Welcome@Amprion”. The main part of onboarding takes place on site at the apprentices’ workplace, where they are taught both specialised and interdisciplinary knowledge. To enable more people to participate, many onboarding events are meanwhile held online.

Amprion offers all employees advice on all personnel development issues. Each employee spends an average of 38 hours attending advanced training measures every year. Amprion focuses here on needs-oriented and tailored solutions. The annual staff appraisal meeting is a chance to identify development opportunities. In addition, on the initiative of employees or their supervisors, timely meetings are held to discuss the need for personnel development measures. These are supplemented by regular target agreement meetings for non-pay scale employees.



Buddies supervise and support new colleagues at Amprion during their initial training phase.



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To ensure that development measures are as targeted as possible, we draw up specific development concepts – for example for managers, aspiring managers, project leaders and proven specialists. One aspect of these is a procedure for assessing employees’ potential individually and promoting it systematically. Content focuses and learning and learning objectives are defined depending on the target group and the extent of previous knowledge and experience. Amprion offers workshops and other formats to support employees in change processes and facilitate networking.

Since 2021, Amprion’s continuing professional development activities have been bundled in a digital learning portal, where employees can find out about the extensive range of courses on offer and sign up for the ones that best suit their needs no matter what time it is or where they are. Web-based training and video tutorials can also be completed directly through the portal. At the end of a course, employees are asked to provide feedback, which is evaluated at regular intervals by Personnel Development in collaboration with the trainers.

GRI 3-3

CORPORATE CULTURE

Amongst other things, a company’s corporate culture is expressed through the behaviour of its employees as well as in the way they work together and take decisions. Especially at times when skilled workers are in short supply, a corporate culture characterised by respect and appreciation as well as interdepartmental cooperation can be an advantage on the labour market and a booster for employee motivation and

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in-house advance training events were conducted for our employees in 2022.

commitment. A supportive corporate culture is therefore an important factor for Amprion’s operating result and competitiveness.

Creating and living a common cultural understanding

In view of our steady growth, promoting a positive corporate culture is a key concern for Amprion on the way to satisfied employees and maximum business success. Against this background, a broad process of cultural development, communication and interaction has been initiated over the last two years. More than 100 employees from all company departments got together in 15 workshops to define the cornerstones of Amprion’s corporate culture, consisting of five mission-critical elements: transparency, appreciation, interdepartmental cooperation, learning objectives and goal orientation. Together they form our cultural compass.

These elements of our culture provide incentives to reflect on our own behaviour and attitudes and serve as a means for communicating how we work together in Amprion’s various departments. In order to live these elements and establish them at our company, we set up a network of cultural ambassadors. These accompany their teams in their daily work and support company-wide cooperation. Furthermore, the above cultural elements are taken into account in all existing formats and measures, for example advanced training, management and executive events or team meetings. A culture index has been included into our regular, company-wide employee surveys, which in the future will also allow the development of our corporate culture to be mapped and analysed. This will apply both to the company as a whole and to each organisational unit.

Amprion’s corporate culture is an ongoing process. Our aim is that it will create the basis for employees to continue to identify with their role at Amprion, go about their daily work with great enthusiasm and showing mutual respect for one another, and ultimately contribute to the transformation of the energy system.

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GRI 407-1

Good working conditions

Amprion is committed to offering its employees attractive working conditions. The basic framework is laid down in a collective agreement negotiated between the ver.di trade union and the employers' association. Amongst other things, this includes performance-related remuneration and fair work time arrangements. Numerous company agreements also

THE AMPRION CULTURAL COMPASS

The cultural compass stands for the cornerstones of Amprion's corporate culture and was developed by employees.



exist, for example on mobile working. We are guided by internationally established standards such as the core labour standards of the International Labour Organization (ILO) and the UN Global Compact.

We continuously integrate the interests of our employees. Amprion's Joint Works Council is responsible for employee co-determination at company level. It currently consists of nine members, who are elected and delegated by the regional committees in Brauweiler, Dortmund and Hoheneck. The Management Board and the Joint Works Council are committed to integrating employees and are initiating concrete measures: we keep our employees constantly informed about the latest operational developments – at works meetings as well as via the intranet, the staff magazine, notice boards and newsletters. Apart from this, Amprion's Management Board invite the workforce to join in online chats on an ad hoc basis. These serve to discuss various key issues and promote a direct exchange of thoughts and ideas. The Management Board additionally take part in the works meetings, which likewise include an open question and answer session by chat.

Amprion also has an established ideas management system that is designed to encourage active collaboration. Employees can use it to submit suggestions for improvement. In this way, we also promote an exchange of experiences and the transfer of knowledge in everyday working life. The spectrum of suggestions is wide and covers occupational health and safety as well as technical improvements, environmental protection and commercial processes. All ideas accepted are rewarded with a bonus.

Amprion makes every effort to involve its employees in the issue of sustainability. Central to this is the company's Sustainability Management team, who pool all expertise relating to sustainability at Amprion, are the go-to persons for all employees for advice on the subject, and promote

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an exchange of information between departments within the framework of the Sustainability Management system. The opinions of our employees were also taken into account when determining the key sustainability issues in 2020. Employees have a further opportunity to contribute comments and ideas regarding sustainability within the framework of the employee survey.

Seeds for biodiversity

Sustainability is key concern for our employees. Suggestions related to sustainability are regularly submitted to our ideas management system for this reason. In 2022, for example, the idea of distributing a seed mixture for flowering meadows to employees was the outcome of an employee initiative. The seeds were sent out at the beginning of 2023 together with our employee magazine. Since then, people have been able to plant flowering meadows wherever they see fit – backed up by appropriate information material. In this way, employees can make a small contribution towards protecting biodiversity.

Advice and support for employees

Amprion wants to be a partner to its employees and supports them beyond what is required by law. One example of this is the Employee Assistance Programme. In this program, we offer our employees support in matters related to any health, family, psychological or legal problems they may be experiencing. All employees – and their relatives – can contact a 24/7 hotline we run to ask for advice. Medical and psycho-social counsellors will answer their questions and provide them with assistance. This confidential service is also available to employees while away on business trips or vacation.

[GRI 405-2](#), [GRI 406-1](#)

Promoting diversity and equal opportunities

Amprion brings together people from very different backgrounds. We also live and experience cultural diversity in the context of our international cooperation with European partners. This diversity, collaboration among colleagues and the equal treatment of everyone characterise our daily interactions. For this reason, Amprion consciously opposes any form of discrimination – whether based on gender, nationality, ethnic origin, religion, ideology or disability. This attitude is simultaneously reflected in our remuneration system, which is committed to ensuring equal pay irrespective of gender. In the case of pay scale employees, this is covered by the collective wage agreement while a company agreement exists for non-pay scale employees.

To express this commitment to a diverse workforce, Amprion’s Management Board and the Joint Works Council have signed the “Charta der Vielfalt” (Diversity Charter) – a charter founded by the eponymous German foundation based in Berlin – and are intensifying their diversity activities. We give consideration to the various dimensions such as age, nationality, gender or sexual orientation. Our approach to promoting diversity and equal opportunities will eventually give rise to a diversity concept, which we are now in the process of developing.

Amprion’s HR department manages diversity issues. Parallel to this, our Non-Discrimination, Disability Inclusion and Diversity Officers are charged with ensuring that all applicable regulations are consistently observed. Together with the Works Council and the Employee Assistance Programme, they also act as points of contact. Suspected violations can be reported either directly to them or using the compliance whistle-blower system. In 2022, no cases of discrimination were reported at Amprion (see [Table 17](#)).

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The issue of equality is reflected in a number of initiatives. Amongst other things, employee commitment has resulted in LGBTIQ* and women’s networks being established at Amprion in the last few years. The patrons are Dr Hans-Jürgen Brick, Amprion’s CEO, and Eva Schwarz, Director HR Management. The aim of these initiatives is to make diversity visible at Amprion and to support the interests of network members. The promotion of diversity is simultaneously intended to have a positive effect on our business success. In 2022, Amprion took part in Germany’s Diversity Day. This provided a framework for various activities to help employees understand the value of a diverse workforce. For instance, we are encouraging people to keep the dialogue going in the context of so-called “Management Talks”. Moreover, as part of the employee survey, we ask people to tell us what they think about diversity and equal opportunities at Amprion.

Apart from this, diversity plays an important role in recruiting in that we are prioritising women more and more. Women currently account for almost 21 per cent of Amprion’s workforce. In November 2022, with the aim of increasing this share, Amprion took part in her.career, Germany’s best-known careers fair for women. We also published a [brochure \(German only\)](#) portraying women at Amprion in this connection. In the same year, we were able to significantly increased the number of female candidates considered in the process for assessing individual potential (see [Table 17](#)).

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nationalities: Amprion successfully brings together people from greatly differing cultures.

Work-life balance

Employee satisfaction is also linked to an attractive work-life balance. Amprion therefore puts conditions in place that allow people to enjoy a productive working life which harmonises with their private life and the needs of family. We believe in flexible working hours and have introduced different work time models plus the option of working from home.

Amprion also runs a company-funded advice centre that assists all employees with questions about childcare. Parent-child offices offering a child-friendly environment can be found at our Dortmund and Brauweiler sites, which staff members can use as a workplace in the event of a childcare emergency. In addition, Amprion organises places in child day-care centres for employees’ children. Everyone working at Amprion is entitled to parental leave.

Beyond this, Amprion has entered into a partnership with BUK Familien-service to provide even more targeted support to employees on childcare issues. From 2023, free counselling and mediation services will be available to all employees – from parental allowance questions through finding a day-care place to holiday care for schoolchildren.

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KEY DATA EMPLOYEES

GRI 2-7, GRI 2-30, GRI 401-1, GRI 401-3

Table 15 Workforce^{1, 2}

| | 2022 | 2021 | 2020 |
|----------------------------|--------------|--------------|--------------|
| Total [FTE] | 2,339 | 2,148 | 2,037 |
| Gender¹ | | | |
| Women | 463 | 418 | 401 |
| Men | 1,876 | 1,730 | 1,636 |
| Full time [FTE] | 2,259 | 2,016 | 1,911 |
| Women | 407 | 372 | 361 |
| Men | 1,852 | 1,718 | 1,629 |
| Part time [FTE] | 80 | 58 | 47 |
| Women | 56 | 46 | 40 |
| Men | 24 | 12 | 7 |
| Permanent [FTE] | 2,237 | 2,062 | 1,953 |
| Women | 405 | 371 | 353 |
| Men | 1,832 | 1,691 | 1,600 |
| Temporary [FTE] | 102 | 86 | 84 |
| Women | 57 | 47 | 48 |
| Men | 45 | 39 | 36 |
| Pay scale [FTE] | 1,807 | 1,676 | 1,614 |
| Pay scale [%] | 77.3 | 78.0 | 79.2 |
| Non-pay scale [FTE] | 492 | 437 | 389 |
| Non-pay scale [%] | 21.0 | 20.3 | 19.1 |

Table 15 Workforce^{1, 2}

| | 2022 | 2021 | 2020 |
|--------------------------------|-----------|-----------|-----------|
| Senior executives [FTE] | 40 | 35 | 34 |
| Senior executives [%] | 1.7 | 1.6 | 1.7 |
| On parental leave [no.] | | | |
| Women | 32 | 23 | 17 |
| Men | 12 | 16 | 6 |
| Turnover³ | | | |
| New hires [FTE] | 289 | 216 | 424 |
| Women | 69 | | |
| Men | 220 | | |
| < 30 | 87 | | |
| 30-50 | 183 | | |
| > 50 | 19 | | |
| Turnover [%] | 2.3 | 1.9 | 1.5 |
| Turnover, absolute [FTE] | 49 | | |
| Women [%] | 16 | | |
| Men [%] | 84 | | |
| < 30 [%] | 16 | | |
| 30-50 [%] | 16 | | |
| > 50 [%] | 68 | | |

¹ Data as at reference date 31.12.

² To date, we have not received any reports of individuals who identify as "diverse" according to the official specification. For this reason, the breakdown of gender is only into "female" and "male"

³ Breakdown of new hires and fluctuation by gender and age for the first time in 2022

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Table 16 Age structure

| | 2022 | 2021 | 2020 |
|--|-------------|-------------|-------------|
| Average age overall | 39.7 | 39.8 | 39.7 |
| < 30 | 392 | 393 | 417 |
| 30-50 | 1,742 | 1,367 | 1,245 |
| > 50 | 292 | 464 | 445 |
| Semi-retirement [FTE] | 76 | 74 | 79 |
| Average age in supervisory bodies | 54.4 | 53.6 | 52.1 |
| < 30 | 0 | 0 | 0 |
| 30-50 | 2 | 4 | 8 |
| > 50 | 14 | 12 | 8 |

GRI 405-1

Table 17 Equal opportunities

| | 2022 | 2021 | 2020 |
|---|-------------|-------------|-------------|
| Overall proportion of women [%] | 20.7 | 20.3 | 20.4 |
| Proportion of women in management positions | 10 | 8.6 | 8.8 |
| Proportion of women in supervisory bodies | 18.8 | 18.8 | 18.8 |
| Proportion of severely disabled employees | 2.3 | 2.7 | 2.7 |
| Cases of discrimination [no.] | 0 | 0 | 0 |
| Nationalities [no.] | 28 | 27 | 28 |

GRI 404-1

Table 18 Basic and advanced training

| | 2022 | 2021 | 2020 |
|--|-----------|-----------|-----------|
| Trainees [no.] | 47 | 44 | 43 |
| Proportion of trainees [%] | 2.0 | 2.0 | 2.1 |
| Advanced training courses | | | |
| In-house training events [no.] | 612 | 849 | 612 |
| Participations at in-house training events [no.] ¹ | 5,145 | 8,678 | 4,335 |
| Participations at external training events [no.] | 435 | 442 | 632 |
| Average no. of hours of advanced training per employee per year (qualified estimate) | 38 | 38 | 38 |

¹ Exclusive e-learning.

GRI 403-9

Table 19 Occupational health and safety

| | 2022 | 2021 | 2020 |
|---|------|------|------|
| Work-related/commuting accidents [LTI] ¹ | 10 | 11 | 15 |
| Rate for work-related/commuting accidents [LTIF] ² | 3 | 3 | 5 |
| Work-related/commuting accidents not resulting in lost time with medical treatment [no.] ³ | 4 | 3 | 2 |
| Work-related injuries with serious consequences [no.] ⁴ | 0 | 0 | 0 |
| No. of deaths | 0 | 0 | 0 |
| No. of work-related/commuting accidents among contractors' workers | 51 | 19 | 32 |
| No. of deaths among contractors' workers | 0 | 0 | 0 |

¹ LTI (Lost Time Incidents) = work-related/commuting accidents (absolute) resulting in lost time ≥ 1 day.

² LTIF (Lost Time Incident Frequency) = LTI x 1 million working hours/ number of hours actually worked.

³ Reported accidents where employees sought medical treatment but not resulting in lost time.

⁴ Work-related injuries where employees still suffered from health restrictions six months later. Data basis: Enquiries from the accident insurance provider.

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REPORT PROFILE

[GRI 2-2](#), [GRI 2-3](#), [GRI 2-4](#), [GRI 2-5](#)

Content and scope of the report

This report is the second comprehensive Sustainability Report published by Amprion GmbH, headquartered in Dortmund, including Amprion Offshore GmbH. It provides information on the company's non-financial performance in the reporting year 2022. Quantitative information is generally presented on a three-year comparison basis (2020–2022); qualitative information has been included in the report up to the editorial deadline of 15 May 2023. Where qualitative or quantitative information has had to be adjusted compared to previous reports, this is indicated in the relevant passages.

There was no external assurance of the content of this report.

Global Reporting Initiative (GRI) as a framework

The report has been prepared in accordance with the standards of the Global Reporting Initiative (GRI). The performance indicators of the GRI standards make Amprion's sustainability performance transparent and comparable. The [GRI content index](#) refers to the passages in the report that make reference to the respective indicators.

Additionally, we are aligning our future non-financial reporting with the legal requirements of the Corporate Sustainability Reporting Directive (CSRD) and the related European Sustainability Reporting Standards (ESRS). For this purpose, we are reviewing our current data landscape and synchronising it with CSRD/ESRS specifications.

Further information and follow-up report

Amprion's Sustainability Report is published exclusively online and can be downloaded from our website at amprion.net/sustainability/. A sustainability update will be published in April 2024 with updated information on the 2023 reporting year; the next comprehensive report will be published in April 2025.

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GRI CONTENT INDEX

Statement of use – Amprion has reported in accordance with the GRI Standards for the financial year 2022 and thus for period from 1 January 2022 to 31 December 2022.

GRI 1 used – GRI 1: Foundation 2021

Applicable GRI Sector Standard(s) –

| GRI Standards | Chapter / Section | Comment / Declaration of omission |
|---|---|---|
| GRI 2: General Disclosures 2021 | | |
| The organisation and its reporting practices | | |
| GRI 2-1: Organisational details | Introduction → p.2 , Sustainability Management → p.17 , Corporate governance → p.37 | See also Amprion Financial Report 2022, p. 30 ff |
| GRI 2-2: Entities included in the organisation's sustainability reporting | Report profile → p.98 | |
| GRI 2-3: Reporting period, frequency and contact point | Report profile → p.98 , Publication details → p.106 | |
| GRI 2-4: Restatements of information | Report profile → p.98 | Where qualitative or quantitative information has had to be adjusted compared to previous reports, this is indicated in the relevant passages. |
| GRI 2-5: External assurance | Report profile → p.98 | |
| Activities and workers | | |
| GRI 2-6: Activities, value chain and other business relationships | Sustainability at Amprion → p.14 , Supplier management → p.42 | |
| GRI 2-7: Employees | → Table 15 | There is no breakdown of employees by region. All Amprion employees work in Germany, with two exceptions: one person works in Belgium and one in France. |
| GRI 2-8: Workers who are not employees | | We use a double-digit number of leased workers to bridge peaks. |
| Governance | | |
| GRI 2-9: Governance structure and composition | Sustainability organisation at Amprion → p.22 | See also Amprion Financial Report 2021, pp. 76-78 |
| GRI 2-10: Nomination and selection of the highest governance body | Sustainability organisation at Amprion → p.22 | The Supervisory Board is established in accordance with the German Co-Determination Act, i.e. half of the Supervisory Board members are appointed by the shareholders and the other half are employee representatives (eight representatives each). The employee representatives are always elected by the company's employees. |

| INTRODUCTION | GRI Standards | Chapter / Section | Comment / Declaration of omission |
|---------------------------|---|--|--|
| | GRI 2-11: Chair of the highest governance body | | See Amprion Financial Report 2022, p. 5 and p. 27 |
| SUSTAINABILITY MANAGEMENT | GRI 2-12: Role of the highest governance body in overseeing the management of impacts | Sustainability organisation at Amprion → p.22 | Our strategy and goals are presented to the Supervisory Board in connection with the Sustainability Report. The dialogue with the Supervisory Board generally takes the form of committee support. In addition, the Sustainability Management Team provides the Committee with sustainability information upon request. |
| CORPORATE GOVERNANCE | | | |
| SECURE POWER SYSTEM | GRI 2-13: Delegation of responsibility for managing impacts | Sustainability organisation at Amprion → p.22 | |
| SOCIETY AND CUSTOMERS | GRI 2-14: Role of the highest governance body in sustainability reporting | | The dialogue with the Supervisory Board generally takes the form of committee support. In addition, the Sustainability Management Team provides the Committee with sustainability information upon request. |
| ENVIRONMENT | GRI 2-15: Conflicts of interest | Definition and monitoring of compliance requirements → p.41 | |
| EMPLOYEES | GRI 2-16: Communication of critical concerns | Definition and monitoring of compliance requirements → p.41 | |
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| | GRI 2-17: Collective knowledge of the highest governance body | Sustainability organisation at Amprion → p.22 | |
| | GRI 2-18: Evaluation of the performance of the highest governance body | Responsible corporate governance → p.39 | |
| | GRI 2-19: Remuneration policies | Responsible corporate governance → p.39 | See also Amprion Financial Report 2022, p.228 |
| | GRI 2-20: Process to determine remuneration | | The individual target agreements for management and senior executives include a cultural target with a certain minimum percentage. The target agreement and subsequent target achievement are linked to a payout. |
| | GRI 2-21: Annual total compensation ratio | | The ratio of annual total compensation is sensitive data that is not reported. |
| | | | |
| | Strategy, policies and practices | | |
| | GRI 2-22: Statement on sustainable development strategy | Introduction → p.2 , Amprion's sustainability strategy → p.17 | |
| | GRI 2-23: Policy commitments | Compliance management system → p.40 | |
| | GRI 2-24: Embedding policy commitments | Compliance management system → p.40 , Criteria for responsible procurement → p.43 | |
| | GRI 2-25: Processes to remediate negative impacts | Compliance management system → p.40 , Definition and monitoring of compliance requirements → p.41 | |
| | GRI 2-26: Mechanisms for seeking advice and raising concerns | Definition and monitoring of compliance requirements → p.41 | |
| | GRI 2-27: Compliance with laws and regulations | Definition and monitoring of compliance requirements → p.41 | |
| | GRI 2-28: Membership associations | Dialogue with politicians → p.42 | |

| INTRODUCTION | GRI Standards | Chapter / Section | Comment / Declaration of omission |
|--|---|---|--|
| SUSTAINABILITY MANAGEMENT | Stakeholder engagement | | |
| | GRI 2-29: Approach to stakeholder engagement | Dialogue with our stakeholders → p.20 | |
| CORPORATE GOVERNANCE SECURE POWER SYSTEM SOCIETY AND CUSTOMERS ENVIRONMENT EMPLOYEES | GRI 2-30: Collective bargaining agreements | Table 15 | |
| | GRI 3: Material Topics 2021 | | |
| | GRI 3-1: Process to determine material topics | Amprion's sustainability strategy → p.17 | |
| | GRI 3-2: List of material topics | Amprion's sustainability strategy → p.17 | |
| | Compliance | | |
| | GRI 3-3: Management of material topics | Compliance → p.38 | |
| | GRI 205: Anti-corruption 2016 | | |
| | GRI 205-1: Operations assessed for risks related to corruption | Definition and monitoring of compliance requirements → p.41 | |
| | GRI 205-2: Communication and training about anti-corruption policies and procedures | Compliance management system → p.40 | |
| | GRI 205-3: Confirmed incidents of corruption and actions taken | Definition and monitoring of compliance requirements → p.41 | |
| GRI 206: Anti-competitive Behaviour 2016 | | | |
| GRI 206-1: Legal actions for anti-competitive behaviour, anti-trust and monopoly practices | Definition and monitoring of compliance requirements → p.41 | | |
| GRI 415: Public Policy 2016 | | | |
| GRI 415-1: Political contributions | Dialogue with politicians → p.42 | | |
| Procurement | | | |
| GRI 3-3: Management of material topics | Procurement → p.42 | | |
| GRI 204: Procurement Practices 2016 | | | |
| GRI 204-1: Proportion of spending on local suppliers | Supplier management → p.42 | | |
| GRI 308: Supplier Environmental Assessment 2016 | | | |
| GRI 308-1: New suppliers that were screened using environmental criteria | Criteria for responsible procurement → p.43 | Amprion does not currently report the percentage of new suppliers that were screened using environmental criteria because no data is available. We are addressing this aspect in connection with the implementation of the German Supply Chain Due Diligence Act (LkSG) and will report on it starting in 2024. | |
| GRI 308-2: Negative environmental impacts in the supply chain and actions taken | Criteria for responsible procurement → p.43 | Amprion does not currently report the percentage of new suppliers that were screened using environmental criteria because no data is available. We are addressing this aspect in connection with the implementation of the German Supply Chain Due Diligence Act (LkSG) and will report on it starting in 2024. | |

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| GRI Standards | Chapter / Section | Comment / Declaration of omission |
|--|--|--|
| GRI 414: Supplier Social Assessment 2016 | | |
| GRI 414-1: New suppliers that were screened using social criteria | Criteria for responsible procurement → p.43 | Amprion does not currently report the percentage of new suppliers that were screened using social criteria because no data is available. We are addressing this aspect in connection with the implementation of the German Supply Chain Due Diligence Act (LkSG) and will report on it starting in 2024. |
| GRI 414-2: Negative social impacts in the supply chain and actions taken | Criteria for responsible procurement → p.43 | Amprion does not currently report the percentage of new suppliers that were screened using social criteria because no data is available. We are addressing this aspect in connection with the implementation of the German Supply Chain Due Diligence Act (LkSG) and will report on it starting in 2024. |
| European framework conditions | | |
| GRI 3-3: Management of material topics | European framework conditions → p.53 | |
| Cooperation | | |
| GRI 3-3: Management of material topics | Partnerships for the energy system of the future → p.55 | |
| Grid expansion and upgrade | | |
| GRI 3-3: Management of material topics | Development of the grid infrastructure → p.46 | |
| Grid and systems development | | |
| GRI 3-3: Management of material topics | Grid and systems development → p.49 | |
| System security | | |
| GRI 3-3: Management of material topics | Security and grid stability → p.52 | |
| GRI 203: Indirect Economic Impacts 2016 | | |
| GRI 203-1: Infrastructure investments and services supported | Sustainability at Amprion → p.17 , Development of the grid infrastructure → p.46 , Grid and system development → p.49 , Security and grid stability → p.52 | |
| GRI 203-2: Significant indirect economic impacts | Sustainability at Amprion → p.17 , Development of the grid infrastructure → p.46 , Grid and system development → p.49 , Security and grid stability → p.52 | |
| Society | | |
| GRI 3-3: Management of material topics | Dialogue with relevant stakeholders → p.61 | |
| Customers | | |
| GRI 3-3: Management of material topics | Working in partnership → p.64 | |

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| SUSTAINABILITY MANAGEMENT | Regional commitment | | |
| CORPORATE GOVERNANCE SECURE POWER SYSTEM SOCIETY AND CUSTOMERS ENVIRONMENT EMPLOYEES | GRI 3-3: Management of material topics | Added value for society → p.67 | |
| | GRI 413: Local Communities 2016 | | |
| | GRI 413-1: Operations with local community engagement, impact assessments and development programmes | Added value for society → p.67 | |
| | GRI 413-2: Operations with significant actual and potential negative impacts on local communities | Dialogue with relevant stakeholders → p.61 | |
| | Resource conservation and climate protection | | |
| | GRI 3-3: Management of material topics | Resource efficiency and climate protection in our operations → p.79 , Our climate targets until 2032 → p.19 | |
| FURTHER INFORMATION | GRI 302: Energy 2016 | | |
| | GRI 302-1: Energy consumption within the organisation | Increasing energy efficiency in our operations → p.81, Table 10 | |
| | GRI 302-3: Energy intensity | Table 10 | |
| | GRI 302-4: Reduction of energy consumption | Increasing energy efficiency in our operations → p.81 | |
| | GRI 305: Emissions 2016 | | |
| | GRI 305-1: Direct (Scope 1) GHG emissions | Climate protection in our operations and along the value chain → p.81 , Reduction of operational emissions → p.83, Table 11, Table 12 | |
| | GRI 305-2: Energy indirect (Scope 2) GHG emissions | Climate protection in our operations and along the value chain → p.81, Table 11 | |
| | GRI 305-3: Other indirect (Scope 3) GHG emissions | Climate protection in our operations and along the value chain → p.81, Table 11 | |
| | GRI 305-4: GHG emissions intensity | Table 11 | |
| | GRI 305-5: Reduction of GHG emissions | Reduction of operational emissions → p.83 | |
| | GRI 306: Waste 2020 | | |
| | GRI 306-3: Waste generated | Resource conservation as a goal → p.80, Table 13 | |
| | GRI 306-4: Waste diverted from disposal | Table 13 | |
| | GRI 306-5: Waste directed to disposal | Table 13 | |
| | Nature conservation | | |
| | GRI 3-3: Management of material topics | Power grid in the age of nature conservation → p.73 | |
| | Species protection | | |
| | GRI 3-3: Management of material topics | Power grid in the age of nature conservation → p.73 , Species protection → p.78 | |

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| GRI Standards | Chapter / Section | Comment / Declaration of omission |
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| GRI 304: Biodiversity 2016 | | |
| GRI 304-1: Operational sites owned, leased, managed in or adjacent to protected areas and areas of high biodiversity value outside protected areas | Grid expansion in harmony with nature → p.73 | |
| GRI 304-2: Significant impacts of activities, products and services on biodiversity | Introduction → p.2 , Grid expansion in harmony with nature → p.73 , Integrated Vegetation Management → p.75 , Soil protection when laying underground cabling → p.75 , Onshore water conservation → p.77 , Environmentally compatible offshore connection → p.77 , Species protection → p.78 | |
| GRI 304-3: Habitats protected or restored | Grid expansion in harmony with nature → p.73 , Offsetting impacts through renaturation → p.74 | There are no partnerships with third parties. |
| GRI 304-4: IUCN Red List species and national conservation list species with habitats in areas affected by operations | Grid expansion in harmony with nature → p.73 | |
| Occupational health and safety | | |
| GRI 3-3: Management of material topics | Occupational health and safety → p.88 | |
| GRI 403: Occupational Health and Safety 2018 | | |
| GRI 403-1: Occupational health and safety management system | Standards for safe working → p.88 | |
| GRI 403-2: Hazard identification, risk assessment and incident investigation | Standards for safe working → p.88 , Raising occupational health and safety awareness → p.89 | |
| GRI 403-3: Occupational health services | Health promotion → p.90 | |
| GRI 403-4: Worker participation, consultation and communication on occupational health and safety | Standards for safe working → p.88 , Raising occupational health and safety awareness → p.89 | |
| GRI 403-5: Worker training on occupational health and safety | Raising occupational health and safety awareness → p.89 | |
| GRI 403-6: Promotion of worker health | Health promotion → p.90 | |
| GRI 403-7: Prevention and mitigation of occupational health and safety impacts directly linked by business relationships | Raising occupational health and safety awareness → p.89 | |
| GRI 403-8: Workers covered by an occupational health and safety management system | Standards for safe working → p.88 | |
| GRI 403-9: Work-related injuries | Raising occupational health and safety awareness → p.89 , Table 19 | |

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| Active personnel development | | |
| GRI 3-3: Management of material topics | Active personnel development → p. 90 | |
| GRI 404: Training and Education 2016 | | |
| GRI 404-1: Average hours of training per year per employee | Table 18 | Amprion currently only records the total number of hours per year per employee, with no breakdown by gender and employee category. |
| GRI 404-2: Programmes for upgrading employee skills and transition assistance programs | Personnel development - needs-based, tailored and targeted → p. 90 | |
| GRI 404-3: Percentage of employees receiving regular performance and career development reviews | Personnel development - needs-based, tailored and targeted → p. 90 | |
| Corporate culture | | |
| GRI 3-3: Management of material topics | Corporate culture → p. 92 | |
| GRI 401: Employment 2016 | | |
| GRI 401-1: New employee hires and employee turnover | Table 15 | No breakdown by region |
| GRI 401-2: Benefits provided to full-time employees that are not provided to temporary or part-time employees | | Amprion does not differentiate between benefits for full-time employees and those for part-time and temporary employees. |
| GRI 401-3: Parental leave | Table 15 | Amprion currently only records the total number of employees that took parental leave. |
| GRI 402: Labour / Management Relations 2016 | | |
| GRI 402-1: Minimum notice periods regarding operational changes | | Amprion complies with legal requirements such as the German Works Constitution Act (BetrVG), which governs the duty to provide information. |
| GRI 405: Diversity and Equal Opportunity 2016 | | |
| GRI 405-1: Diversity of governance bodies and employees | Table 17 | |
| GRI 405-2: Ratio of basic salary and remuneration of women to men | Promoting diversity and equal opportunities → p. 94 | |
| GRI 406: Non-discrimination 2016 | | |
| GRI 406-1: Incidents of discrimination and corrective actions taken | Promoting diversity and equal opportunities → p. 94 | |
| GRI 407: Freedom of Association and Collective Bargaining 2016 | | |
| GRI 407-1: Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk | Criteria for responsible procurement → p. 43 , Good working conditions → p. 93 | |

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INFORMATION**

CONTACT

Dr Erik Riedel,
Head of Sustainability Management

Phone +49 231-5849-15585

E-Mail nachhaltigkeit@amprion.net

PUBLISHER

Amprion GmbH
Robert-Schuman-Straße 7
44263 Dortmund

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Accenture GmbH, Kronberg im Taunus
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PHOTOS / GRAPHICS

123Trimm (Title)
Julia Sellmann (p. 2, 6)
Daniel Schumann (p. 4, 12, 23, 49, 50, 57)
Goetz Schleser (p. 5)
Frauke Schumann (p. 8 right, 10 right, 82)
Dirk Beichert (p. 8 left, 10 left)
Robert Winter (p. 11, 13)
Amprion (p. 14, 48, 66, 76, 77, 93)
Matthias Haslauer (p. 15)
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Amprion GmbH
Robert-Schuman-Straße 7
44263 Dortmund

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