

၀ ၀

**bdew** Energie. Wasser. Leben.





# Energy in Europe

Recommendations for action from the German energy industry for the 2024 – 2029 legislative period









tende antenne deter a der Sterne Marine Berne der der Alberte der der Sterne der Sterne der Sterne der Sterne d

#### 2,000 companies. One voice.

The German Association of Energy and Water Industries (BDEW), Berlin, and its regional organisations represent over 2,000 companies. Its members range from local and municipal, to regional and up to national and international businesses. It represents around 90 per cent of electricity production, over 60 per cent of local and district heating supply, over 90 per cent of natural gas, over 95 per cent of the energy networks as well as 80 per cent of drinking water extraction and around a third of wastewater disposal in Germany.

www.bdew.de

#### **Your contact at BDEW**



#### Viola Rocher

Managing Director EU Representation Telephone: +32 2 771-9642 viola.rocher@bdew.de



#### Tilman Schwencke

Director Strategy and Politics Division Telephone: +49 30 300199-1090 tilman.schwencke@bdew.de



#### Moritz Mund

Manager EU Representation Telephone: +32 2 774-5115 moritz.mund@bdew.de

BDEW Bundesverband der Energie- und Wasserwirtschaft e. V. Reinhardtstraße 32 10117 Berlin

BDEW EU Representation Avenue de Cortenbergh 52 1000 Bruxelles Belgium

For more information on energy in Europe visit: www.energie-in-europa.de



# **Energy for a strong Europe**

We need Europe! This is a belief that is deeply shared by the entire German energy sector. In the coming years, we are going to face numerous challenges which can only be overcome collectively, within a strong European Union. In order to remain competitive and capable of acting in a world increasingly shaped by geopolitics, the EU needs to be even more united in taking strategically bold and clear decisions to create a climate-neutral future for our continent. Returning to purely nationalistic policymaking would be a huge backward step not only for society but also for our energy supply. The evidence shows that the European internal energy market has made the energy supply more secure and more affordable for all citizens while guaranteeing the international competitiveness of Europe on the global stage. The guiding principle must therefore be to preserve the internal energy market and not to weaken it through further interventions. Last but not least, climate neutrality can only be successfully achieved if we bundle our efforts.

The 2019 to 2024 European legislative period saw a number of climate policy milestones being reached. The European Climate Law was passed, introducing the first greenhouse gas reduction target that is legally binding across the whole EU. The entire EU must be climate-neutral by no later than 2050. Moreover, emissions have to be reduced by at least 55 per cent by 2030. The German energy sector has already been working towards these targets for many years, with significant progress in a number of areas. In 2023, over half of the electricity consumed in Germany was sourced from renewables for the first time. The development of the hydrogen economy is also picking up speed thanks to fundamental decisions in the EU gas package and the decision to build a German hydrogen backbone.

It is also clear, however, that there is still much to be done on the path to climate neutrality. With this in mind, debates around targets and principles must take a back seat, as ambitious targets can only be achieved if companies have planning certainty and can invest with optimism for the future. After many groundbreaking decisions in the "Fit for 55" package, it is now essential that we place the focus in the upcoming legislative period 2024 – 2029 on implementing what has been decided while not overlooking the targeted improvements that are needed in specific areas. Above all, this means taking steps to future-proof the electricity grid, driving forward In order to remain competitive and capable of acting in a world increasingly shaped by geopolitics, the EU needs to be even more united in taking strategically bold and clear decisions to create a climate-neutral future for our continent.

the ramp-up of hydrogen in Europe and – together with reliable partners – worldwide, as well as strengthening key European industries. Other important tasks include continuously developing the EU Emissions Trading System (EU ETS) as the centrepiece of European climate policy and quickly laying the foundations for carbon capture, transport and storage.

However, having confidence in the EU does not mean that its policies should not be scrutinised critically. While it is necessary for the EU to set the overarching legal framework for a single market that is as harmonised as possible, we have become absorbed in regulatory trivialities in recent years. This costs time and leads to overly complex and bureaucratic rules. While it is true that regulation is needed to achieve climate neutrality, we do need more pragmatism again in future. In particular, regional factors and circumstances have to be taken into account. Companies have to be able to concentrate once more on their core activities instead of being sidetracked by notification and reporting obligations. This means not only avoiding new bureaucracy but also rolling back existing bureaucracy.

The German energy sector is ready to make its full contribution to the transformation of the European economy to climate neutrality. With this brochure, we will show what the European Union can and must do to ensure this transformation is possible.

# 8 Recommendations

from the German energy industry for the 2024 - 2029 legislative period



### **1. PRESERVE AND STRENGTHEN THE INTERNAL ENERGY MARKET**

#### GOALS

- Refrain from market interventions and fundamental market reforms.
- Enable pragmatic capacity markets.
- Ensure investment certainty through stability of the uniform bidding zone.

#### Import and export mix for German electricity 2023



Source: BDEW

It is plain to see that the European internal energy market has made the energy supply more secure and more affordable for all citizens. Liquid markets and free and cross-border trade in gas and electricity successfully mitigated the energy crisis in 2022 for consumers and market players, despite massive disruptions in the gas supply. While prices initially rose sharply due to the associated energy shortage, these rises provided the necessary incentives to save energy and were rightly cushioned in the short term by social and energy policy measures. Without a functioning internal market to fall back on, the effects on energy prices and security of supply caused by the Russian war of aggression would have been even more severe. This has shown that the European internal energy market does guarantee Free trade and functioning markets stabilise the European economic area and create investment certainty as is crucial to ensuring that the expansion of renewables and ramp-up of hydrogen is as rapid as possible. security of supply, especially in times of crisis, and that competition and cross-border cooperation do work. The current market design has therefore proved its worth. According to the Agency for the Cooperation of Energy Regulators (ACER), cross-border electricity trading alone has brought consumers in the EU benefits totalling 34 billion Euros per year over the past ten years.

In light of the challenges brought on by the energy transition, the internal energy market is becoming ever more important in guaranteeing that the energy supply throughout Europe is not only secure and as affordable as possible but also that it is increasingly carbon-free. The interconnected European electricity and (in future) hydrogen infrastructure allows wind power from the north and solar power from the south to be distributed throughout the EU in a cost-effective manner thus

making the best possible use of fluctuating renewable energy sources. In this way, energy trading within the European internal market reduces the costs of the energy transition and increases security of supply.

Germany also benefits from the European internal electricity market. At times when electricity can be generated in neighbouring countries at low prices, it is imported. That not only lowers costs but also usually reduces carbon emissions: in 2023 over half of the electricity imported into Germany came from renewables as the associated generation costs are particularly low. Similarly, Germany exports electricity to its neighbours predominantly when the share of renewables is high and therefore the electricity price in Germany is particularly low. This ensures that within the European internal electricity market, electricity is always generated where it is cheapest.

In light of this, it is essential that trust in the markets and market processes is maintained and that the European internal energy market is strengthened and expanded. Free trade and functioning markets stabilise the European economic area and create investment certainty as is crucial to ensuring that the expansion of renewables and ramp-up of hydrogen is as rapid as possible. Interventions in the market must therefore be avoided or limited to the minimum necessary in exceptional circumstances. Following the market interventions during the energy crisis in 2022, some of which were understandable while others were excessive, we must now return from crisis mode to normality. The reforms of the European electricity and gas market design have permanently enshrined in EU law the lessons learned from the price crisis and, among other things, strengthened the long-term markets for electricity. We must now look to the future and refrain from further market reforms for the time being. Specifically, the way that the current pricing mechanism on the electricity market works, namely the efficient matching of supply and demand (merit order), should not be changed. Instruments such as revenue caps or price restrictions for electricity or gas should be avoided as they would act as an impediment to the urgently needed investment.

In an energy system that is increasingly based on volatile and fluctuating renewable energy sources, there is still a need for action in the area of long-term security of supply and system security. In future, hydrogen-fired power plants, storage facilities and flexibility tools will be able to compensate for the fluctuations in electricity generation from wind and solar power in Germany. However, the current market situation does not provide the necessary investment incentives across the board for the required expansion of firm capacity and essential storage capacity or for the use of demand response. For this reason, capacity markets must be pragmatically incorporated into the existing legal framework, both in the course of the implementation of the reformed electricity market design in Germany and by the European Commission as part of the planned guidelines and during state aid approval procedures. In terms of the European internal market, it is crucial that all technologies, whether on the generation side or on the storage and consumption-reduction side, are taken into account across countries and bidding zones according to their contribution to security of supply.



Long-term price signals and well-developed and highly liquid futures markets for electricity, gas and CO<sub>2</sub> are also key factors for investments in electricity generation capacities. For electricity, in particular, how the boundaries of price zones, so-called bidding zones, are drawn is important. Any change in this regard impacts the quality and reliability of medium to long-term price signals and thus the investment conditions for expanding renewables. As the situation at the present time calls for as much investment as possible as quickly as possible, uncertainties such as bidding zone splits should be avoided and the regular open-ended bidding zone review should be reconsidered altogether. Instead, grid bottlenecks must be eliminated by accelerating the expansion of the grid and adding generation facilities and electrolysers in line with the needs of the overall system.

In addition to preserving and strengthening the internal electricity market, the internal gas market must also be further expanded. The gas supply crisis in 2022 clearly demonstrated its importance. Thanks to the joint efforts of all Member States, gas supplies were secured despite a high dependency on imports with new options for diversifying gas supplies created within a very short space of time.

The internal gas market also plays a key role in the shift to climate neutrality. Specifically in relation to the ramp-up of hydrogen, it is important to take a European view from the outset and enable cross-border trade and transport of all renewable and low-carbon gases across the EU – to help get the hydrogen produced within Europe to consumers and enable imports from non-EU countries. The internal gas market also plays a key role in the shift to climate neutrality. Specifically in relation to the ramp-up of hydrogen, it is important to take a European view from the outset and enable cross-border trade and transport of all renewable and lowcarbon gases across the EU. It is not only in relation to the import of natural gas and, in future, of hydrogen that we need to look beyond the European internal market but also in relation to electricity. In particular, cooperation with the United Kingdom, which is pursuing very ambitious targets for the expansion of offshore wind power, should be further intensified, not only in the area of energy but also in the area of climate policy, for example by linking the respective emissions trading systems. Moreover, talks on electricity deals with Switzerland and on other partnerships with non-EU states, including with Ukraine, should be pushed forward.



#### The origin of natural gas consumed in Germany

Sources: ENTSOG, FNB, BVEG, BDEW (own calculations)

# 2. STAY THE COURSE ON CLIMATE PROTECTION AND IMPLEMENT WHAT HAS BEEN DECIDED

#### GOALS

- Prioritise implementation of the "Fit for 55" package and ensure planning certainty.
- Rigorously pursue climate policy until 2040 and further develop carbon pricing.
- Create a European framework for (cross-border) transport of CO<sub>2</sub>.

With the "Fit for 55" package, groundbreaking steps have been taken towards climate neutrality. These ranged from expansion targets for renewable energy sources and e-mobility to requirements for reducing energy consumption and the creation of an emissions trading system for buildings and road transport (ETS 2). The reforms of the internal electricity and gas markets have also set a course focussing on the future. Many of these targets and requirements are ambitious and will only be achievable in the remaining five and a half years before 2030 with great efforts from all stakeholders involved. For this reason, following the passing of the major energy and climate packages, it is imperative that all efforts are focussed on meeting the existing targets.

It is only possible to achieve such ambitious targets if the adopted measures quickly take effect and if companies can rely on what has been decided and make the necessary investments for the transformation. This is primarily a matter for the Member States but the Commission must also play its part. Pending secondary legislation, such as the definition of low-carbon gases, should not only be adopted promptly but also pragmatically. We in the EU can no longer afford to get caught up in lengthy, in-depth political discussions like the recent debate on the definition of renewable hydrogen. We must therefore ensure that the Commission's state aid investigations are conducted and decisions issued much more rapidly and less bureaucratically than has been the case to date.



#### Price of CO<sub>2</sub> emission allowances 2021-2024

Source: EEX



At the same time, we must stay the course in terms of climate policy since the work of transformation will not end in 2030. With its communication on the 2040 climate target, the Commission rightly initiated discussions at an early stage in the interests of stakeholders' ability to plan long-term. It is now essential to focus on specific measures to achieve our aims instead of once more getting lost in endless discussions about targets. The European Emissions Trading System (EU ETS) should remain the centrepiece of EU climate policy and be further developed in the long term with a view to 2040. Depending on what the experience is with ETS 2 from 2027 onwards, the merger of the two European systems, ETS 1 and 2, should be prepared for the period after 2030, as should the potential inclusion of additional sectors. Particularly with regard to the effects of CO<sub>2</sub> pricing in the buildings and transport sector, the necessary social compensation must always be ensured, for example via the Social Climate Fund. The use of industrial carbon capture should also be allowed within the EU ETS in the medium to long term, to offset emissions which are impossible or very difficult to avoid. Whether it makes sense to include other non-CO<sub>2</sub> greenhouse gases in the ETS, however, must be assessed on a caseby-case basis. Due to the gradual abolition of free allocation in the EU ETS, measures to prevent the

We in the EU can no longer afford to get caught up in lengthy, in-depth political discussions like the recent debate on the definition of renewable hydrogen. relocation of CO<sub>2</sub> emissions to third countries (carbon leakage), in particular the Carbon Border Adjustment Mechanism (CBAM), will also become more important to counterbalance the more difficult competitive situation. Its further development and the inclusion of additional sectors should therefore be carried out pragmatically in close dialogue with industry.

For the German energy sector, it is clear that the avoidance of emissions in all sectors must continue to have top priority. However, if we are to achieve climate neutrality through the decarbonisation of the whole EU internal market, we will need carbon capture, storage and utilisation (CCU/CCS), especially for CO<sub>2</sub> emissions which are impossible or difficult to avoid. This is demonstrated not least by the Commission's plans for the 2040 climate target. In order to achieve this in an environmentally friendly way and at the speed required for a rapid technology ramp-up, an EU-wide legal framework for carbon management must be created as quickly as possible. Here it is right for the focus to be primarily on the development of a European CO<sub>2</sub> transport infrastructure and to link this closely with the existing infrastructure for gas and hydrogen. The creation of a European trading system for CO<sub>2</sub> that has been removed from the atmosphere – in the medium to long term as part of the EU ETS – could create key incentives for the ramp-up process. As important as it is to be quick, the carbon management system must be sustainable. In particular, the protection of water resources must be guaranteed at all times, hence there should be no onshore storage at the present time. In addition, we must take into account that some Member States have much greater potential for CO<sub>2</sub> storage than others.

# 3. EXPAND RENEWABLE ENERGY SOURCES AND DRIVE FORWARD THE RAMP-UP OF HYDROGEN

#### GOALS

- Improve the regulatory framework for European offshore energy hubs.
- Adapt the conditions placed on the production of renewable hydrogen to be more in line with reality.
- Develop a European import strategy for hydrogen together with reliable third countries.

Renewable energies will be at the heart of the energy system of the future. They enable us to be independent of fossil fuel imports, are climate-neutral and cheaper in the long term than conventional energy systems. We must therefore further step up the pace of the expansion of renewables. Whilst over half of electricity demand in Germany is already covered by renewables – in the EU as a whole it is just less than half – the current pace of expansion is far slower than what is needed. In the coming years, it needs to be doubled: from 2026 onwards, around 10 GW of wind power on land and 22 GW of solar have to be added every year. The intention is to raise the share of renewables in total electricity production Germany-wide to 80% by 2030. On an EU scale, around 30 GW of wind power and 70 GW of solar will be required annually.

For this to succeed, the measures to speed up permitting procedures in the amended Renewable Energy Directive (RED III) must be implemented quickly at national level and we must continue to rigorously examine, at all levels, where EU rules still stand in the way of the expansion of renewables. For example, efforts should be made, together with the other signatory states to the Aarhus Convention, to work towards practicable amendments with the aim of achieving a better balance between the right to sue and the speeding up of procedures, without undermining the protection of nature and species and public participation.



Sources: BDEW, Destatis, ZSW, ENTSO-E; as at: 03/2024

\* Preliminary figures

Due to their very favourable conditions for wind energy, the European seas offer great potential to become the EU's green energy hub. 120 GW of wind turbines are to be installed in the North Sea alone by 2030.

Due to their very favourable conditions for wind energy, the European seas offer great potential to become the EU's green energy hub. 120 GW of wind turbines are to be installed in the North Sea alone by 2030. Even more than other renewable energy technologies, the expansion of renewables at sea is a truly European project. In future, offshore wind farms will increasingly be connected directly to several Member States (so-called hybrid projects) and will therefore always be able to deliver their electricity to where it is needed most. However, the future design of the offshore market still needs to be clarified before genuine European energy hubs can be created. This will require, among other things, a political decision on how costs for the offshore infrastructure are shared between the neighbouring countries involved. The focus must be on finding pragmatic solutions, with the early involvement of the Member States concerned and possible third countries such as the United Kingdom and Norway. It is important that any agreement on a cost-sharing mechanism is carefully scrutinised in order to minimise regulatory risks for network operators and producers.

When expanding offshore wind energy, the huge potential for hydrogen production directly at sea and the associated infrastructure must always be taken into account. This is because offshore wind energy is particularly suited to the cost-effective production of renewable hydrogen, due to its ability to deliver high numbers of full-load hours.

As a partner to renewable electricity generation, hydrogen is the second key building block in the EU's transformation towards climate neutrality. It is therefore also necessary to increase the speed of the hydrogen ramp-up, as the EU has also set itself ambitious targets in that area: the plan is for there to be a total usage of renewable hydrogen of 20 million tonnes by 2030, with half of it produced in the EU and the other half imported. To achieve a functioning internal hydrogen market, the gas and hydrogen package must be implemented swiftly and fleshed out at EU and national level. This includes establishing a simple, centralised verification and trading system for hydrogen which is standardised across the EU.

To accelerate the hydrogen ramp-up, it is essential that hydrogen can reach the market in as large volumes as possible, as quickly as possible. One major obstacle to this, however, is that the criteria for producing renewable hydrogen are too strict. While the EU definition of renewable hydrogen includes a transition phase, it is far too short in view of the still long project-realisation periods for both electrolysers and renewable energy plants. The corresponding delegated act should therefore be reviewed much earlier than planned, by the end of 2026 at the latest, to ensure that it is compatible with the ambitious EU targets for the hydrogen ramp-up and designed in a more pragmatic manner. In addition, we must ensure, that demand for hydrogen is given a boost and the expansion of the hydrogen infrastructure is driven forward. The successful hydrogen ramp-up is important for the competitiveness of European industry and for ensuring the EU remains an attrac-tive place to do business. It will make Europe more resilient and cement its position as a global leader in technology.

Instruments to promote the market ramp-up, such as the European Hydrogen Bank or the "Important Projects of Common European Interest" (IPCEI), must not only be continued but also reviewed and improved in terms of their effectiveness. This includes reducing bureaucracy in the applications process and accelerating decision-making by the Commission.



#### Expansion of renewable energy sources in Germany up to 2030

Sources: AGEE-Stat, BDEW

In addition to domestic hydrogen production, the EU must also tap into potential outside Europe to a greater extent. In this regard, it is important to ensure the international compatibility of European regulations so that Europe can participate in global hydrogen trading. The EU also needs a holistic hydrogen import strategy that provides for reliable partnerships with third countries.

Especially in the ramp-up phase, it is essential to take a flexible approach that does not give preference to any particular technology. This includes, in addition to renewable hydrogen, considering low-carbon hydrogen and derivatives in order to make larger volumes available quickly and at affordable prices. The criteria for imported hydrogen and derivatives should also take into account the level of development of the exporting countries. It is still necessary, however, that the criteria are enabling and not prohibitive in nature. The import infrastructure must be diversified from the outset in order to achieve security of supply.

#### Plan for the ramp-up hydrogen imports to Germany by 2045



Source: BDEW EY Fortschrittsmonitor 2024

In addition to renewable electricity from solar and wind power and the increasing hydrogen rampup, the production of sustainable biogas and biomethane remains an important source of domestic, controllable and sustainable energy. The full potential of sustainable biomass must therefore also be exploited in order to achieve the EU target of 35 billion cubic metres of annual biomethane production by 2030.

#### Focus: heating transition and energy efficiency

Decarbonising the heating supply is one of the biggest challenges of the energy transition. Across the EU, the supply of heating and cooling accounts for almost half of total European energy consumption. Renewable energy sources, on the other hand, are currently contributing only around a quarter of the energy consumed in this area. In Germany, the share provided by renewables is even lower, at below 20 per cent, with natural gas continuing to be the dominant energy source for heating.

With the Energy Efficiency Directive (EED) and the Energy Performance of Buildings Directive (EPBD), the EU is setting the legal framework for the decarbonisation of the buildings sector. The heating transition is, however, primarily a local challenge. Therefore, it is right that the EED stipulates the creation of local heating plans, on the basis of which the most sensible path for climate-neutral heating supply can be chosen and that the EPBD creates a "level playing field" for all renewable heating sources and for efficient district heating. That is because there is not just one right path for achieving the heating transition.

While heat pumps will be the primary heating source in new buildings in the future, heating networks will play an important role, especially in more densely populated areas. Such networks are characterised by the fact that they can be gradually converted to renewable energies and waste heat without interfering with the buildings themselves. It should also remain possible to supply heat via the existing gas grid using low-carbon and renewable gases such as biomethane or, in the medium to long term, hydrogen – especially for countries such as Germany, where almost half of all homes are still supplied via the gas grid. Infrastructure planning must always be the first step before starting energy-related upgrades to buildings.

In addition to converting the heating supply to increasingly climate-neutral energy sources, energy efficiency will also make an important contribution to the heating transition, as energy that is not consumed does not cause any emissions. This applies to both residential and non-residential buildings, such as industrial buildings. Any further development of EU energy efficiency rules, however, must take into account that there are limits to the continuous reduction of energy consumption, if industrial value creation is to be preserved in Europe.

#### 15.2 % (2023) 5.7 % (2023) 13.9 % (2019) 2.2 % (2019) **Direct heating** Electricity (electric heat pumps) 23.4 % (2023) 25.6 % (2019) 1.8% (2023) 41.9 Mio. Oil (whole-building heating, oil boiler) 2.6 % (2019) Electricity (night storage heaters) Homes 48.3 % (2023) 48.2 % (2019) Gas (whole-building, individual-5.6 % (2023) unit, gas heat pumps, individual 7.5 % (2019) gas boiler) Other (other whole-building/individual heating systems, liquified gas, wood/ pellets, coal etc.)

Energy sources used for home heating in Germany

Source: BDEW Study "Wie heizt Deutschland"

14 RENEWABLE ENERGIES AND HYDROGEN

# 4. MAKE THE ELECTRICITY AND GAS INFRASTRUCTURE FIT FOR THE FUTURE

#### GOALS

- Create suitable conditions for investment in network infrastructures and enable forward-looking investments.
- Further speed up permitting procedures.
- Look at electricity, gas and hydrogen infrastructure as being inextricably linked and plan accordingly.

Renewable energies will only be effective if they can be transported from the point of generation to the consumer, be that directly from the generation plant, after interim storage in an energy storage facility or in the form of molecules, in future primarily of hydrogen. In particular, the upgrading and expansion of the electricity transmission and distribution networks must be afforded even greater political focus, in order to be able to press ahead with infrastructure expansion at the necessary pace. Around 131 billion Euros have to be invested in the transmission networks until 2030 in Germany alone. On top of this is the 123 billion Euros required for the German distribution networks. Each year, therefore, around 32 billion Euros needs to be invested, on average, in the expansion of the electricity grid across Germany. With anything less than that not only the expansion of decentralised renewable energies but also the ramp-up of electromobility and heat pumps could be massively inhibited.



#### Investment in grid infrastructure, DSOs and TSOs

Sources: German Federal Network Agency Monitoring Report 2023, BDEW EY Fortschrittsmonitor 2024

The rapid development of an integrated European hydrogen infrastructure is essential, starting with a European "hydrogen backbone". The Commission has already laid a good foundation for increased grid investment with the EU Action Plan for Grids. In the coming legislative period, the necessary legislative and regulatory provisions for the planned acceleration and modernisation of the grids and their expansion must be devised and adopted. This will require, above all, a clear framework which enables network operators to make future-oriented investments today in the energy supply of tomorrow (so-called anticipatory investments). After all, the energy transition will not succeed simply by maintaining the existing grid infrastructure. When it comes to grid expansion, as with renewable

energies, barriers that delay permitting procedures for grid expansion projects must be identified and eliminated and the creation of new hurdles when enacting new legislation must be avoided.

At the same time, it is important to make the gas infrastructure fit for climate neutrality. The rapid development of an integrated European hydrogen infrastructure is essential, starting with a European "hydrogen backbone". Hydrogen storage facilities are also an important element which need to be considered from the outset. The gas and hydrogen package has laid the foundations for this development and transformation of the gas infrastructure. We must now build on this: Numerous pieces of legislation, on both the technical and the market organisation side, will have to be drawn up in the coming years to ensure that the hydrogen ramp-up succeeds at European level.

In light of the increasing coupling of sectors, we must take a more holistic view of electricity, gas and hydrogen infrastructure in general in future. The overlaps between these sectors and thus their infrastructures will continue to grow. Important foundations were laid in the gas and hydrogen package for a streamlined further development of the infrastructures. In this area too, it is now necessary to put the regulations into practice in the real world.



#### The planned German hydrogen backbone

Source: FNB Gas

# 5. ENSURE THE RESILIENCE OF THE ENERGY TRANSITION WITH THE HELP OF AN ACTIVE INDUSTRIAL POLICY

#### GOALS

- Drive forward the diversification of supply chains via technology and raw material partnerships.
- Expand recycling capacities for critical raw materials.
- Support key industries with the help of a European Sovereignity Fund.

A successful energy transition will make the energy supply not only cleaner but also more resilient to external shocks. While a reduction of dependence on fossil fuel imports is an automatic side effect of the increasing expansion of renewables, the supply of the transformation technologies and critical raw materials required for this expansion must also be secured. The solar industry is especially relevant in this regard. However, there are also currently dangerous dependencies on individual third countries for other energy transition and digitalisation components. That said, resilience does not mean total independence from imports. Even in future, Europe will not be able to completely satisfy its demand for raw materials itself. Instead, it is important to work towards a strategic sovereignty that enables the EU to reduce dependencies on individual supplier countries and retain or rebuild its own expertise. To achieve this, we need a balance between the diversification of supply chains using the advantages of globalisation and the strengthening of domestic industries.

To this end, the EU must pursue a more active and forward-looking industrial policy in future in order to avoid a fragmented and uncoordinated response from the Member States. In addition to tapping into European resources, raw material partnerships must therefore be entered into and systematic recycling established as part of a comprehensive circular economy.

Measures such as the mandatory resilience criteria in public procurement procedures and auctions for renewable energies stipulated in the Net-Zero Industry Act (NZIA) will make an important contribution to supporting domestic industries. Here, it is important to find the right balance between resilience and the expansion of renewables so as not to jeopardise our energy transition targets. It is also clear that, at least in the short to medium term, direct support will also be needed to maintain and build up European production capacities. The EU should therefore set up the already announced European Sovereignty Fund in the very near future and provide it with sufficient resources so that the development of resilient value chains for strategically important technologies can be coordinated throughout Europe.

Resilience does not mean total independence from imports. Even in future, Europe will not be able to completely satisfy its demand for raw materials itself. Instead, it is important to work towards a strategic sovereignty, to reduce dependencies and retain or rebuild our own expertise.

# Focus: Resilience of critical infrastructure and cyber security

Resilience also means protecting critical infrastructures against physical and digital threats, which has taken on a new urgency as we enter this new era of geopolitical upheaval.

The infrastructures of the energy and water sectors are becoming the target of cyber attacks, sabotage and disinformation campaigns – partly due to international tensions. This is another reason why threats from cyberspace and the analogue world must not be considered and regulated by law separately. This is the only way to create a complete picture in hybrid threat situations and respond to such threats accordingly. The convergence of cyber security, analogue resilience and resilience in supply chains must be resolutely driven forward by European legislative initiatives. However, it is important not to lose sight of the practical feasibility of the requirements: Only legislation which is practically implementable can be effective in terms of increasing the level of protection in cybersecurity, physical security and reducing risks in the supply chain.

When further developing European cyber security law and the provisions relating to its resilience, stringency and synergies between cyber security and resilience provisions must be optimally utilised. In particular, we need to build on the existing cyber security standards that have been tried and tested in Europe, to help create a framework for cybersecurity, physical protection and resilience that is effective, standardised across the European Union and comprehensive due to its all-hazards approach.

In addition, the upcoming certification regimes, such as those provided for in the Cyber Resilience Act, must not lead to competition being distorted, to European manufacturers losing touch with the global market due to excessive red tape, to oligopolies forming or to procurement becoming disproportionately difficult for companies in the energy industry.



# 6. CREATE AN ATTRACTIVE ENVIRONMENT FOR ENERGY TRANSITION-RELATED INVESTMENTS

#### GOALS

- Reduce documentation burden regarding ESG conformity.
- Further develop sureties, loan guarantees or tax credits as alternatives to direct funding.
- Set European Investment Bank (EIB) to focus on financing the energy transition.

Achieving our energy transition targets will require an enormous amount of investment – over 720 billion Euros by 2030 and over 1.2 trillion Euros by 2035 in Germany alone. Additional private capital must be mobilised first and foremost to close the upcoming financing gaps. Above all, companies and investors require a high degree of long-term reliability and planning certainty, which ultimately limits financial risks.

#### Investment required for energy transition in Germany up to 2030



#### 353.4 € billion

Generation (renewable energies, conventional generation and hydrogen)



#### 281.1 € billion

Networks (Transmission networks for electricity and gas, distribution networks for electricity and gas)



### 22.6 € billion

Green gases



# 14.7 € billion

Hydrogen backbone







Source: BDEW EY Fortschrittsmonitor 2024



Above all, companies and investors require a high degree of long-term reliability and planning certainty to limit financial risks.

Within the Sustainable Finance Package, the EU has already taken a number of measures to incentivise green investments. However, it is important that instruments such as the EU Taxonomy, the EU Green Bond Standard, or the sustainability reporting requirements do not become an end in themselves but instead provide a real incentive for investors to increasing their financing of green projects. Small and medium-sized enterprises (SMEs) must not be left by the wayside and impeded in their transformation, as is the case with the Green Asset Ratio, for example. A practical check of these instruments is therefore required to identify where the cost and effort required to document ESG compliance can be reduced through targeted measures.

In addition to mobilising private capital, however, public funding will also be needed, especially for early-stage technologies. In times where budgets are tight, this means that funds must be used efficiently and in a targeted manner where they are needed most. This means supporting a transformation which is as rapid and socially fair as possible while preserving the competitiveness of EU industries. It is also essential to continue to scrutinise subsidies which cause damage to the climate. As an alternative to direct funding, indirect support measures in the form of sureties, loan guarantees or tax credits, based on the US model, could be useful – also for manufacturers of important transformation technologies. In this context, the targeted focus of funding from the European Investment Bank (EIB) is also of particular importance for financing the energy transition.

## 7. REDUCE BUREAUCRACY

#### GOALS

- Reduce reporting obligations and strictly apply the "one in, two out" principle to all existing and new EU rules and regulations.
- Reduce bureaucracy and speed up procedures for EU funding programmes and state aid procedures.
- End discrimination against municipal SMEs in the EU SME definition.

Bureaucracy offers predictability and reliability. However, too much bureaucracy ties up resources unnecessarily and thus hinders the transition to climate neutrality. The EU initiative to reduce reporting obligations by 25 per cent is therefore the right way to ease the burden on companies and allow them to concentrate on their core activities. That announcement must therefore continue to be actually implemented in the coming legislative period and unnecessary reporting obligations must be rolled back.

To this end, all new regulatory projects relevant to the energy and water sectors should be subjected to a practice-based bureaucracy check at an early stage, involving the companies affected, so that the number and complexity of reporting obligations and rules remain manageable, especially for SMEs, and compliance costs are kept to a minimum. This also includes the prompt appointment of an EU SME Envoy who can represent the special challenges of these companies both within the EU and externally. It is extremely important to avoid inconsistencies between individual rules, which greatly increase the reporting burden for companies and create uncertainty. Already existing European regulations should therefore be regularly reviewed in terms of their relevance. In order to achieve a genuine reduction in bureaucracy, at least two existing provisions should be demonstrably eliminated for every new provision that adds bureaucracy in the sector ("one in, two out principle"). At Member State level, reducing bureaucracy also means avoiding unnecessarily strict implementation of EU legislation into national law, which not only increases the reporting burden for companies the reporting burden for companies the reporting burden for companies and creater (companies but is also detrimental to harmonisation in the EU internal market.

Against the backdrop of the US Inflation Reduction Act (IRA), it is also essential to simplify and speed up access to European funding, such as "Important Projects of Common European Interest" (IPCEI) or "Projects of Common Interest" (PCI) to support the further interconnecting of European energy infrastructures. This also applies to the lengthy authorisation procedures under state aid law. Procedures need to be accelerated in this regard too, for example by adding a clear deadline for the Commission's investigation process under state aid law, while maintaining competition within the EU internal market. Extending the exemptions for public infrastructure would also help to make it easier to support the important expansion of infrastructure.

The EU initiative to reduce reporting obligations by 25 per cent is the right way to ease the burden on companies and allow them to concentrate on their core activities.

#### **Focus: SME definition**

Of the more than 2,000 BDEW members, over 1,200 are small and medium-sized enterprises (SMEs). These are often municipal utilities that progress the energy transition at a local level.

In the eyes of the EU, however, the majority of these SMEs do not count as SMEs, as the EU definition of SMEs from 2003 stipulates that companies that are more than 25 per cent publicly owned are not considered SMEs. This applies to over 90 per cent of the SMEs that are members of BDEW.

This provision disadvantages municipal SMEs and leads to a disproportionate additional burden for municipal utilities, as they do not qualify for the support available to SMEs. At the same time, municipal utility companies are excluded from many subsidy and financing measures.

For an inclusive and balanced definition of SMEs that covers all small and medium-sized enterprises in a meaningful way, the 25-per-cent rule regarding the public share of municipal enterprises must therefore be removed from the EU definition of SMEs without replacement.



## 8. SHAPE THE CONDITIONS FOR DIGITALISATION AND AI

#### GOALS

- Avoid stifling innovation through excessive regulation.
- Quickly clarify uncertainties regarding the risk assessment of AI applications.
- Create a level playing field for the use of data in the field of e-mobility.

The green transition and the digital transition go hand in hand. In order to realise synergies in this area, the development and use of artificial intelligence (AI) needs to be viewed as an opportunity even more than before. Instead of slowing down innovation through excessive caution and regulation, we need smart guard rails that allow progress with responsibility. The opportunities offered by digitalisation, in terms of the orchestration of the energy system and thus the implementation of the energy transition, are exactly what we are seeking to enable and support. The AI Act has already paved the way for appropriate protection and at the same time for promoting innovation opportunities through AI. Questions of interpretation that arise during implementation, particularly with regard to the risk assessment of AI applications, must be clarified quickly. Instead of slowing down innovation through excessive caution and regulation, we need smart guard rails that allow progress with responsibility.

Some of the most pressing questions of our time are around the rights of use and rights of ownership regarding the ever-growing mountain of data created by the digitalisation process. These questions need to be resolved through a practice-oriented regulatory framework at EU level. The electrification of cars, in particular, is leading to new business models and services. However, most charging point operators, e-mobility service providers and other stakeholder have no access to the in-vehicle data generated in electric vehicles. In order to create a level playing field, the right thing to do would be to go beyond the Data Act and create specific rules on vehicle data. To this end, the already announced in-vehicle data regulation needs to be presented as soon as possible.



#### Image credits:

#### Front page flap: Photothek

Front page: Mariana Serdynska/Shutterstock.com; evening\_tao - Freepik.com; Mistervlad/Shutterstock.com Interior: p. 5 Reisezielinfo/Shutterstock.com; p. 8 Swen Gottschall; p. 16 BillionPhotos - Freepik.com; p. 18 Wirestock- Freepik.com; p. 20 D Busquets/Shutterstock.com; p. 21 Prostock-studio/Shutterstock.com Back cover: Swen Gottschall Fotografie; frimufilms - Freepik.com; snvv18870020330/Shutterstock.com

#### **Publisher**

BDEW Bundesverband der Energie- und Wasserwirtschaft e. V. Reinhardtstraße 32 10117 Berlin

BDEW EU Representation Avenue de Cortenbergh 52 1000 Bruxelles

www.bdew.de

Data accurate as at: May 2024

The BDEW is registered in the German Lobbying Register with the right to lobby the German Bundestag and the German Government on behalf of its members' interests. It is also registered in the EU Transparency Register in respect of lobbying the EU institutions on behalf of its members' interests. The BDEW carries out its lobbying activities on the basis of the recognised Code of Conduct pursuant to the first sentence of Section 5(3) of the German Lobbying Register Act and the Code of Conduct according to the Transparency Register (europa.eu) while additionally applying BDEW's internal compliance policy, in the interests of ensuring professionalism and transparency. National register entry: R000888. European register entry: 20457441380-38

