



EUROPE GERMANY

2021 was once again characterised by the COVID-19 pandemic. However, whereas the G20's energy consumption had dropped by 3.5% in 2020 (Enerdata, 2021), the global economy started to recover in 2021. The recovery was accompanied by a renewed demand for resources, including for energy. Particularly during the second half of 2021, Germany as well as the European Union (EU) saw significant increases in commodity prices for fossil fuels, among other things, due to lower-than-average Russian gas supplies to the EU. As a result, **geopolitics and commodity prices** are among the highest critical uncertainties.

High gas prices are a key driver for increases in electricity and heating bills, both for the German industry as well as for households. Even before the pandemic, Germany's electricity prices ranked among the highest in the world, which highly impacts the affordability of energy and the competitiveness of industries. Together with rapidly increasing energy prices questions related to the **market design** arise. A growing conflict between Ukraine and Russia as well as the dispute between the USA and Europe over the Nord Stream 2 gas pipeline further increase uncertainty among German energy experts. In the light of frequent cyberattacks on critical energy infrastructures and companies operating in the energy sector, **cyber security risks** continue to be seen as one of the most critical uncertainties in an increasingly digitalised energy system.

In 2021, the European Commission released its 'Fit for 55' package, a comprehensive bundle of reforms to reduce the EU's greenhouse gas emissions by 55% by 2030. Many of its elements will have a direct impact on the design of **market regulations** in the EU and in its Member States as well as on the **investor environment**, including the reform of both the EU's Emission Trading System and the Renewable Energy Directive. The implementation of the package is closely monitored by German energy experts. In this context, emission reductions and **climate change management** continue to be on top of Germany's energy agenda.

The market design and regulatory framework also has an impact on the development of **renewable energies**. The installation of new wind farms, solar panels, and other renewable energy plants is by far the most crucial action priority in Germany, noting that new installations are built too slowly. Besides **energy efficiency**, the expansion and integration of renewables is perceived as one of the most important means to reach climate neutrality by 2045. With a total share of around 44%, renewables became the most important source of electricity in Germany in 2020 (BDEW German Association of Energy and Water Industries, 2021). For the first time, wind power contributed more to the electricity mix than lignite.

Hydrogen remains another crucial energy issue. According to Germany's national hydrogen strategy, renewable hydrogen will play a key role in the decarbonisation of hard-to-abate sectors (National Hydrogen Strategy, 2020). Pilot and research projects for the production, transport and use of renewable hydrogen in Germany have been initiated. In addition, the government plans to import large quantities of hydrogen in the future. Germany has already developed hydrogen partnerships with countries around the world. To match local supply with demand abroad and to promote market ramp-up, Germany launched a dedicated funding programme called H2Global in 2021 with a funding budget of 900 million euros (Federal Ministry for Economic Affairs and Climate Action, 2021).

In 2022, energy discussions will continue to focus on high energy prices and renewable energies. The new Federal Government, elected in autumn of 2021, plans to increase the share of renewables in electricity consumption to 80 % by 2030. Previously, the 2030 target was 65%. Other targets include phasing out coal-fired power generation by 2030, updating the national hydrogen strategy, and increasing the number of registered electric vehicles to 15 million by 2030.

TESTING PERSPECTIVES WITH THE WEC GERMANY MEMBER COMMUNITY

The results of the World Energy Issues Survey were discussed within the German Member Committee in February 2022. The workshop supported the emerging findings while drawing out three key highlights to summarise the country's current energy landscape:

1. The three axes of the Energy Trilemma – energy security, energy equity, and environmental sustainability – are attracting more attention again.

2. The envisaged strong expansion of renewable energies in Germany by 2030 requires an adjustment of the market design and the regulatory framework.

3. Strengthening international cooperation (G7 / G20 and globally), especially on issues of CO₂ pricing as a key to achieving the climate goals, is seen as essential.

Geopolitical tensions and sharp rises in oil, gas and coal prices on international markets have prompted a reassessment of security of supply issues and raised concerns about the development of consumer energy prices in Germany. Critical uncertainties include which measures are suitable for improving the diversification of energy supply and limiting the burden of the increased energy prices on the population, and on the competitiveness of industry.

The new Federal Government has set the course to accelerate the expansion of renewable energies in Germany, to step up the reduction of greenhouse gas emissions and to achieve climate neutrality by 2045. In view of the increasing proportion of fluctuating renewable energies, it is essential that there is an investor environment that offers the necessary economic incentives for investments in controllable power plant capacity (gas power plants) and storage. The acceptance of the massive expansion of renewable energies, especially onshore wind, and the national grids for the transport of electricity from the focal points of generation to the centres of consumption is a major challenge for achieving the ambitious national climate goals.

In order to avoid distortions of competition between different countries, an international agreement on a comparable level of CO₂ pricing is considered indispensable – at least within the G20 states.

WORLD ENERGY COUNCIL

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