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Energy security progress report

Germany is quickly cutting its dependence on Russian energy

Germany is currently working rapidly to reduce its dependence on Russian energy and to broaden the supply base of its energy. Thanks to intensive efforts with all the relevant stakeholders, it has been possible to make significant progress, to diversify the supply chains and thus to gradually achieve clear reductions in the degree of dependence.

What has already happened since the war was started

Immediately after the war was started, the Federal Government began work to safeguard the supply of energy in Germany whilst reducing dependence on Russia. This includes the following:

1. There is a regular dialogue on the current energy supply situation between the Federal Ministry for Economic Affairs and Climate Action and all the key stakeholders at EU, federal and Länder level. This involves constant discussions of and preparations for ways to reduce imports of Russian fuel. In this context, the ministry is helping companies to gradually substitute Russian energy. At present, security of supply is ensured; the Federal Government is doing its utmost to ensure that this remains the case.
2. On 1 March 2022, the Federal Government supplemented the balancing energy purchases on the gas market which had already taken place in the winter with a programme to buy up at least 700 million m³ of gas. The purchasing activities for the Federation are currently being handled by the market area managers for gas (Trading Hub Europe, THE), with the gas to be landed at LNG (liquefied natural gas) terminals in the North Sea, for storage in Germany's gas storage facilities.
3. In order to calm the market, the Federal Government participated in a joint move by all IEA Member States on 2 March 2022 to release 60 million barrels of oil and oil products from the national oil reserves. In line with its share, Germany released approx. 3.2 million barrels.
4. On 4 March 2022, KfW, Gasunie and RWE signed a Memorandum of Understanding (MoU) on a joint project to build a terminal for the import of liquefied natural gas (LNG) at Brunsbüttel. Other sites are being considered on an ongoing basis.
5. On 25 March, the German Bundestag is to adopt the Act on the National Gas Reserve.

It is to take effect on 1 May 2022 and formulates requirements on how full the gas storage facilities must be. This means that the storage facilities will be holding enough gas at the beginning of the next heating period.

6. The Federal Government has set up a procedure with the Bundesnetzagentur (Federal Network Agency) to work together with the power plant operators on purchasing and forming a coal stockpile.
7. The Federal Government has taken out options via RWE and Uniper on three floating LNG terminals (Floating Storage and Regasification Units, FSRUs) in order to further improve Germany's energy security. The companies are currently negotiating contracts on the rental of these floating LNG terminals. The talks are already in the final straight. The Federal Government is currently examining potential sites in the North Sea and the Baltic where these can be deployed quickly – in some cases in time for the winter of 2022/23.
8. The immediate action programme (“Easter package”) is to include the adoption by the Cabinet of a wide-ranging revision of the Renewable Energy Sources Act. This revision of the Act will deliver the greatest acceleration since the first version of the Act was adopted in 2000. Further to this, the Offshore Wind Energy Act is being revised to speed up the expansion of offshore wind energy. The Buildings Energy Act will tighten the standards to be met by buildings.

Where we currently stand, and what can be achieved

1. One central building block in our joint efforts to reduce our dependence on Russia this year is to **consume far less oil and gas**, both directly (especially in heating, for transport and in production processes) and indirectly (through the electrification of processes which have so far used oil and gas). Every kilowatt-hour saved contributes to energy security and independence. We need to make particular efforts in the field of transport and buildings, as the level of dependence on oil and gas is especially great here; furthermore, both sectors failed to achieve their climate targets in 2021. For this reason, the Federal Government will again significantly step up its efforts in the field of energy efficiency this year in order – together with companies and households – to achieve rapid falls in gas and oil consumption. It is investing wherever energy consumption can be reduced most quickly: from 2024, the aim is for renewables to provide 65 per cent of the energy for all newly installed heating systems. We are funding a programme to switch from gas-fired heating systems to heat pumps. From January 2023, Efficiency Standard 55 will be mandatory for new buildings. In this way, we are gradually reducing our dependence on fossil fuel for our heat supply and are phasing out gas-fired heating.
2. Last year, Russian imports covered roughly 35 per cent of German **oil consumption**. Over the last few weeks, steps have been taken in a close dialogue between the Federal Ministry for Economic Affairs and Climate Action and the oil industry to terminate supply relationships with Russia: contracts are not being extended and are

now expiring, so that Russian imports can be gradually replaced. These contractual shifts can already be predicted to reduce dependence on Russian oil to 25 per cent; these changed supply chains will become effective as early as the next few weeks and months. It is expected that imports of Russian oil to Germany will have been halved by the middle of the year. We aim to be virtually independent by the end of the year.

However, the process is challenging: the short-term substitution of crude oil of suitable qualities, particularly at the refineries in Leuna and Schwedt, which supply filling stations, airlines, households and businesses e.g. with gasoline, diesel, kerosene and fuel oil, is creating substantial challenges for the oil industry, since these refineries receive their crude oil by pipeline from Russia. A number of preconditions need to be realised for the switch to take place: Supplies need to come through ports (Rostock, and perhaps Gdańsk – the Federal Ministry for Economic Affairs and Climate Action is talking about this with the Polish Government), and oil needs to be supplied from the west by truck and railway. The companies and the Federal Government are currently working very hard to put these preconditions in place. Total, the operator of the refinery in Leuna, which takes off roughly one-third of the Russian oil imports, has altered its contracts so that oil imports from Russia will be cut in half from mid-April; the end of all supply relationships with Russia has been announced for the end of 2022. Refineries in western Germany take another third of the oil imports from Russia. In these cases, it is easier to organise a substitution of Russian imports via other supply channels. The final third of Russian oil imports goes to the refinery in Schwedt. Since it is largely owned by Rosneft, the Russian state-owned enterprise, it is much more difficult to bring about a voluntary cessation of supply relations with Russia. The problem here is that, despite the war in Crimea, a Russian energy company has been able to gain such strong influence on the supply situation. The Federal Government is working very hard to resolve this complex problem so that it is possible to attain full independence from Russian oil.

3. Russian **coal** has so far accounted for around 50 per cent of German hard coal consumption, and the proportion of hard coal originating from Russia used for electricity generation was even higher. Most of the operators of power stations supplying the public with electricity have already started to cut back on the amount of Russian coal they use. By early summer, a large proportion of the power plant operators will have switched entirely away from, or vastly reduced the input of, Russian coal. The major industrial consumers of coal – primarily the steel industry, where the import share of Russian coke stands at 11 per cent – are also already changing most of their supply contracts. Thanks to the changes in the contracts, dependence on Russian coal is dropping from 50 per cent to around 25 per cent; this will gradually take effect as early as April. Germany can become independent of Russian coal by the autumn.
4. Due to the high degree of dependence and the infrastructure in place, reducing imports of **gas** from Russia is even more challenging. In the past, on average, Russian gas imports accounted for 55 per cent of the market. This figure has dropped to 40

per cent at the end of the first quarter. This was thanks to changes in gas supplies which became necessary due to the actions of Russian gas companies, which suspended the supply on the spot market in the winter, resulting in clear price rises for gas and falling storage levels. At the same time, the purchase of gas from Norway and the Netherlands has been stepped up, and LNG imports have been raised significantly.

However, independence from Russian gas can only be achieved by a combined national effort. Many stakeholders – the Federation, the Länder, municipalities, businesses and households – need to take many steps simultaneously. Further to this, the Federal Government is working intensively in close coordination with the relevant Länder on bringing several floating LNG terminals into operation in Germany as early as 2022 and 2023. This requires a massive effort by everyone involved – not least in order to put in place the technical preconditions, e.g. the construction of the connecting pipelines.

Backed by political talks, the energy companies are busy concluding enough LNG contracts. In 2021, Germany purchased 46 billion m³ of gas from Russia, and a fair proportion of this can be substituted by LNG capacities as follows: the Federal Government acts quickly to secure the purchase and selling on of up to 1 billion m³ of LNG via the Netherlands in 2022. The leasing of the three floating LNG terminals (FSRUs) can gradually make it possible to land (in the final stage in summer 2024) around 27 billion m³ of LNG. This means that 7.5 billion m³ of LNG will be available for the market in time for the winter of 2022/2023. Further LNG terminals, such as the terminal at Brunsbüttel with a capacity of 8 billion m³, are currently undergoing planning processes and will be available for the energy supply from 2026.

In combination with short-term efforts by companies and households to reduce the use of gas via energy efficiency, energy conservation and electrification, it will thus be possible to cut the proportion of gas consumed in Germany which comes from Russia to around 30 per cent by the end of the year. With all the stakeholders pulling in the same direction, independence from Russian gas can largely be achieved by summer 2024. This will require diversification, energy saving, a quicker ramp-up of hydrogen, and the massive expansion of renewables. In total, this will make it possible to gradually reduce the volume of Russian gas until it covers only 10 per cent of gas consumption in the summer of 2024.