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SEE ENERGY BRIEF

Monthly Analysis

The Current Energy Crisis, Energy Security Implications and the Impact on SE Europe



Introduction

On February 21, 2022, after weeks of extreme tensions, Russia's President Vladimir Putin decided to recognise the non-government controlled areas of the Donetsk and Luhansk oblasts (administrative regions) in Ukraine as independent entities and to send Russian troops into these areas. This followed a positive vote by the Russian State Duma (the lower house of the Russian parliament) on February 15. On February 24, 2022, Russia launched an invasion in Ukraine.

The Russian invasion in Ukraine risks disrupting global markets. Since the conflict began, there has already been a sharp increase in global prices for key commodities. This is further affecting the markets, which have recently experienced historically high energy prices.

EU energy ministers held an extraordinary meeting on February 28 to exchange views on the impact of the conflict on Ukraine's energy capacities and on the European energy market. Ministers discussed (a) assistance for Ukraine and synchronisation of Ukraine's electricity network with that of the EU, (b) the status of member states' energy supplies, stocks and flows, (c) contingency market measures to secure supply and (d) options for limiting the impact of high prices. [\(1\)](#)

Europe's Reliance on Russian Oil and Gas

Crude Oil

Russia is the world's third largest oil producer behind the United States and Saudi Arabia. In January 2022, Russia's total oil production was 11.3 mb/d, of which 10 mb/d was crude oil, 960 kb/d condensates and 340 kb/d NGLs, based on IEA's data [\(2\)](#). By comparison, US total oil production was 17.6 mb/d, while Saudi Arabia produced 12 mb/d.

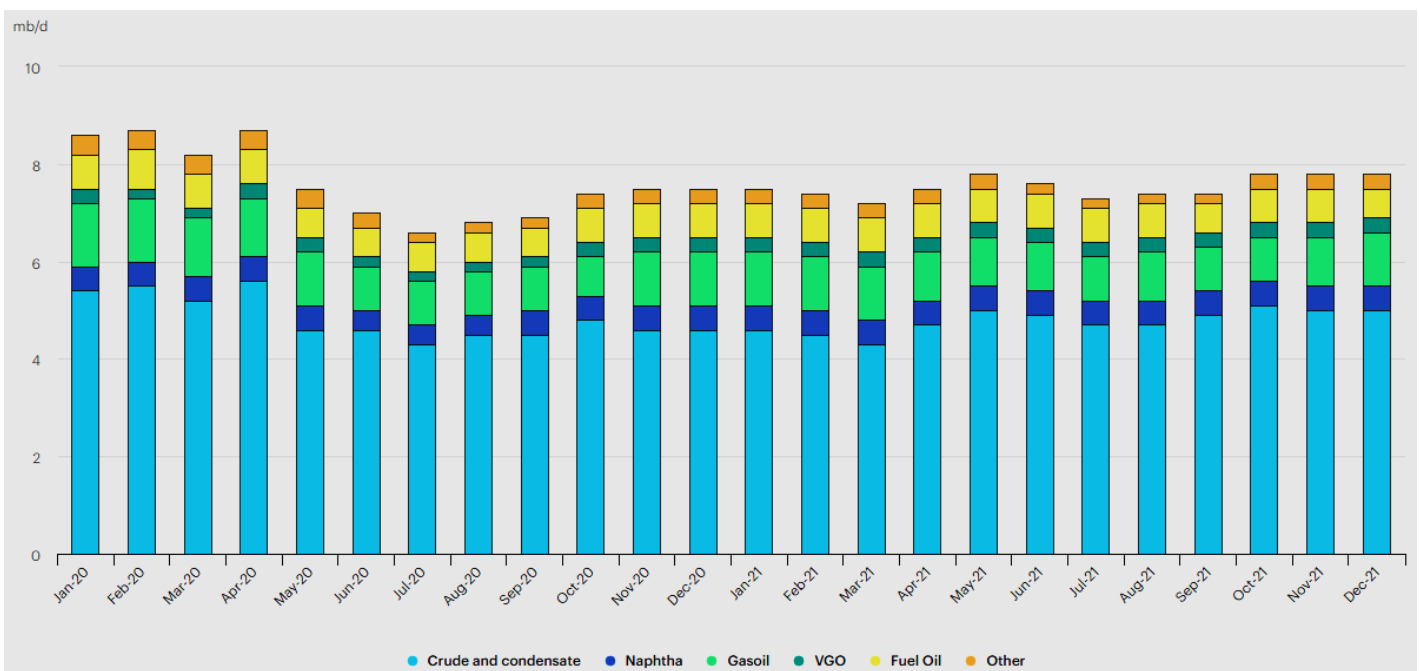
In addition, Russia is the world's largest exporter of oil to global markets and the second largest crude oil exporter behind Saudi Arabia. In December 2021, it exported 7.8 mb/d, of which crude and condensate accounted for 5 mb/d, or 64%. Oil product exports totalled 2.85 mb/d, of which 1.1 mb/d of gasoil, 650 kb/d of fuel oil and 500 kb/d of naphtha and 280 kb/d of vacuum gas oil (VGO). Gasoline, LPG, jet fuel and petroleum coke made up the remaining 350 kb/d.

About 60% of Russia's oil exports go to Europe, which imports about one third of its oil, or around 4.5 mb/d, from Russia, according to latest available IEA data from November 2021. Roughly 750 thousand barrels a day is delivered via the Druzhba pipeline system, with about 250 kb/d transiting Ukraine via its southern branch

to supply Hungary, Slovakia and the Czech Republic. Germany was the largest European buyer of Russian oil in November 2021, followed by the Netherlands and Poland.

China is the single largest buyer of Russian oil, taking 1.6 mb/d of crude on average in 2021, or about 20% of Russia’s exports, equally divided between pipeline and seaborne routes. Japan and Korea combined imported a total of 440 thousand barrels a day from Russia in November 2021, about 5% of their total imports, split between crude and products. The US imported 625 kb/d, or 17% of its total imports. Russia is the 3rd largest source of US oil imports. In 2021, about 1.3 mb/d of seaborne Russian crude (and 1.5 mb/d of Kazakh crude) transited the Black Sea.

Figure 1: Russian crude and oil product exports, January 2020-December 2021



Source: IEA

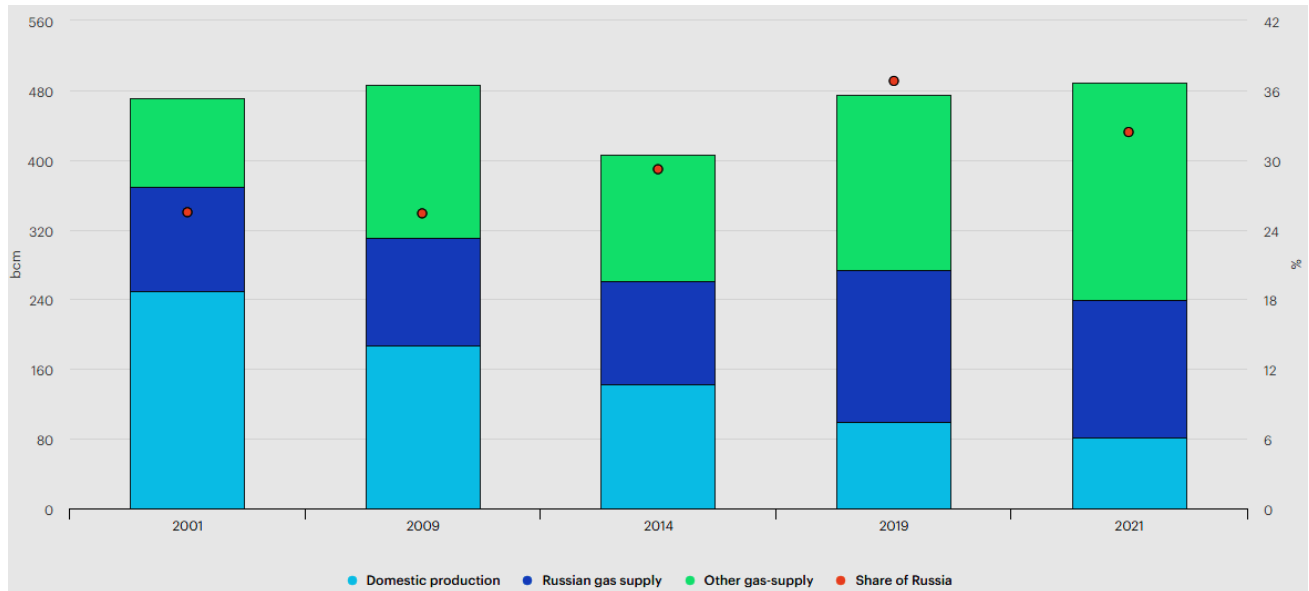
Natural Gas

Russia is the world’s second largest gas producer, after the United States, producing 761 billion cubic meters (bcm) in 2021, or 18% of the global gas output. It is the world’s largest gas exporter, with exports amounting to around 250 bcm in 2021, with 210 bcm transiting through pipelines and 40 bcm transported as LNG.

In 2021, Russia supplied 32% of the total gas demand in the European Union and United Kingdom, up from 25% in 2009. However, Russian gas exports to Europe were already declining in the months before the invasion of Ukraine. Russia reduced its exports to Europe by 25% in the fourth quarter of 2021 compared with the same period in 2020, despite the exceptionally high market prices for natural gas. This artificial tightness was one of the reasons for rising spot gas prices in Europe.

The percentage of Russian pipeline deliveries to Europe passing through Ukraine fell to 25% in 2021 from more than 60% in 2009 because of the development of alternative routes, such as Nord Stream 1 and TurkStream. Overall, about 9% of the EU and UK’s combined natural gas demand passes through Ukraine.

Figure 2: Share of Russia in European Union and United Kingdom gas demand, 2001-2021



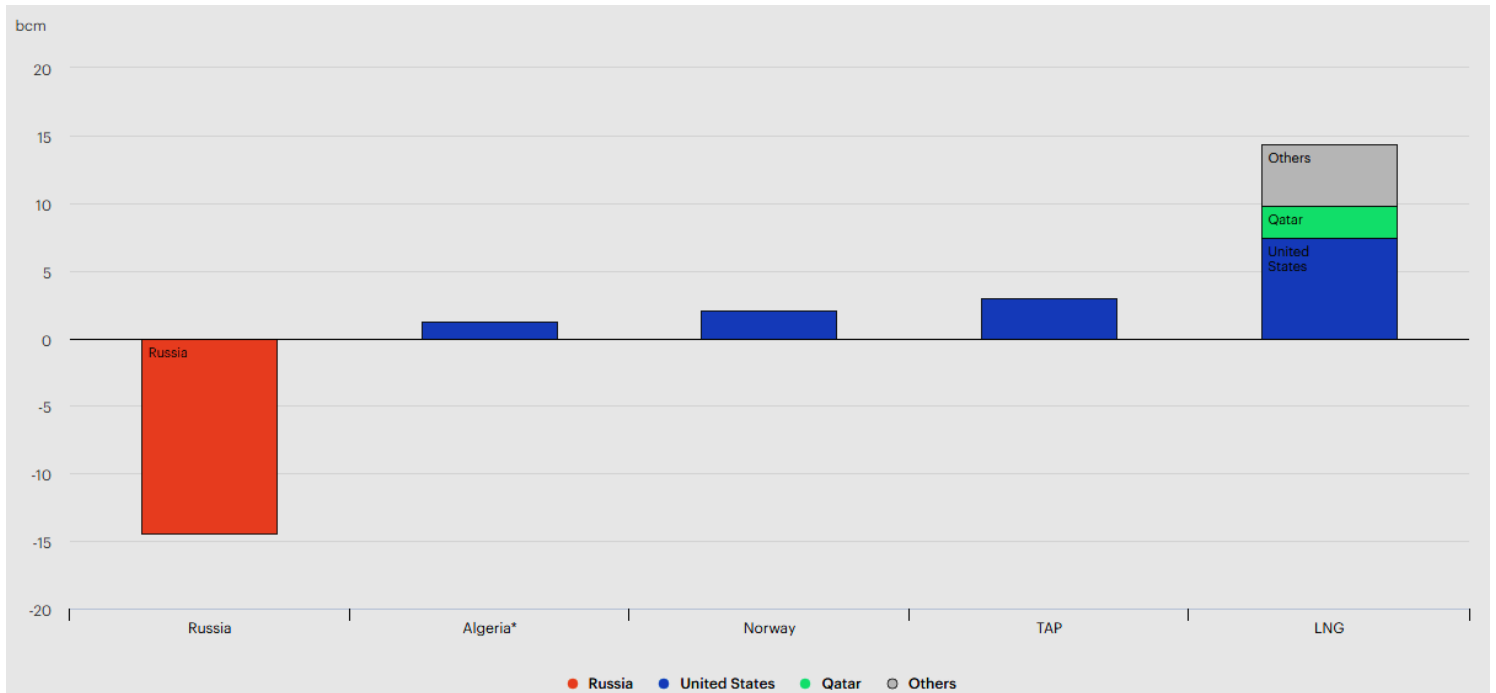
Source: IEA

As highlighted by the IEA in September 2021 (3), Russia has been reducing its piped gas supplies to the EU market, while it did not fill its storage sites in the EU to adequate levels. Pipeline deliveries from Russia declined by 25% year-on-year in Q4 2021. This decrease in Russian pipeline supply to the EU became more pronounced in the first seven weeks of 2022, falling by 37% year-on-year. The last pipeline deliveries to Germany via the YAMAL pipeline (which goes through Belarus) were on 20 December 2021. Gas flows via Ukraine to Slovakia have fallen from an average of over 80 mcm/d in December to just 36 mcm/d in the first seven weeks of 2022. Altogether, Russian gas flows via Ukraine averaged 55 mcm/d during this period, well below the contractually available capacity of around 109 mcm/d, based on IEA’s data.

Other pipeline suppliers, including Algeria, Azerbaijan and Norway, increased their deliveries during the heating season to the European market compared with last year, using commercially available supply routes. Lower Russian pipeline flows have been compensated in part by higher LNG inflows, which increased by 63% year-on-year through October until year-to-date. LNG inflows to the EU and the UK reached an all-time high of 13 bcm in January 2022 – almost three times their last year’s levels and about 70% higher compared to Russian pipeline flows that month. Strong supply and milder-than-expected temperatures in Northeast Asia helped to facilitate the redirection of cargoes towards Europe and limit the implications of strong European demand for LNG markets.

The United States supplied over half of the additional LNG imported by the EU and UK since the beginning of the heating season, accounting for 37% of total LNG supplies. This highlights the importance of the US LNG export industry and of strong transatlantic ties to European energy security.

Figure 3: Year-on-year change in the European Union and United Kingdom natural gas imports by source, October 2021-January 2022



Source: IEA

How Europe Can Reduce its Reliance on Russian Oil and Gas

Crude Oil

Russia’s invasion in Ukraine comes against a backdrop of already tight global oil markets, with heightened price volatility, commercial inventories that are at their lowest level since 2014, and a limited ability of producers to provide additional supply in the short term. For this reason, the IEA’s 31 members agreed to release emergency oil stocks on March 1, 2022, to head off any potential shortfalls in energy supply. The total amount committed by IEA member countries stood at 61.7 million barrels, making it the largest stock release in IEA history. While the process and time lines for the release of these additional volumes of oil will vary across countries, this is the equivalent of about 2 million a day over 30 days. (4)

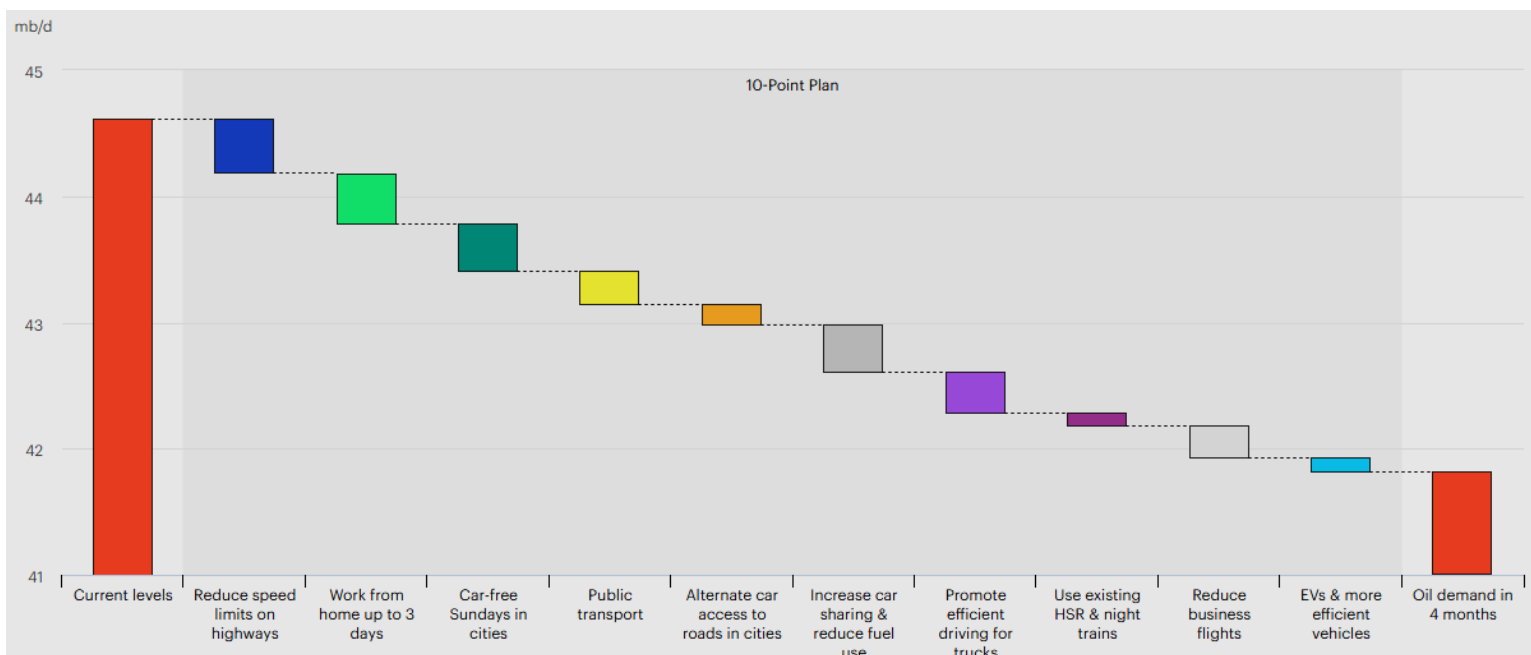
On April 1, 2022, the IEA member countries agreed to tap their emergency reserves for the second time in the space of a month, this time to the tune of 120 million barrels. The record volumes will provide welcome relief to an already tight oil market that is facing heightened uncertainty amid the multitude of repercussions stemming from sanctions and embargoes targeted at Russia by the international community and consumer boycotts. (5)

In addition, the IEA released on March 18, 2022 a 10-Point Plan (6) to cut oil use, proposing actions that can be taken to reduce oil demand with immediate impact – and provides recommendations for how those actions can help pave the way to putting oil demand onto a more sustainable path in the longer term.

Moreover, as announced on March 8, 2022, President Joe Biden banned imports of Russian oil and gas into the US as Washington steps up economic sanctions on Moscow over the invasion of Ukraine in an attempt to deprive it of revenue. The US decision opens a new front in efforts to isolate Moscow from the global economy, following moves to impose sanctions on key Russian banks, top government officials and oligarchs, as well as its central bank. Similarly, UK prime minister Boris Johnson’s government said it would phase out the import of Russian oil by the end of the year. (7)

Furthermore, US President Joe Biden launched on March 31, 2022, the largest release ever of up to 180 million barrels of oil from the Strategic Petroleum Reserve and challenged oil companies to drill more in an attempt to bring down gasoline prices that have soared during Russia’s war with Ukraine. (8)

Figure 4: Oil demand reductions in advanced economies within four months in IEA’s 10-Point Plan



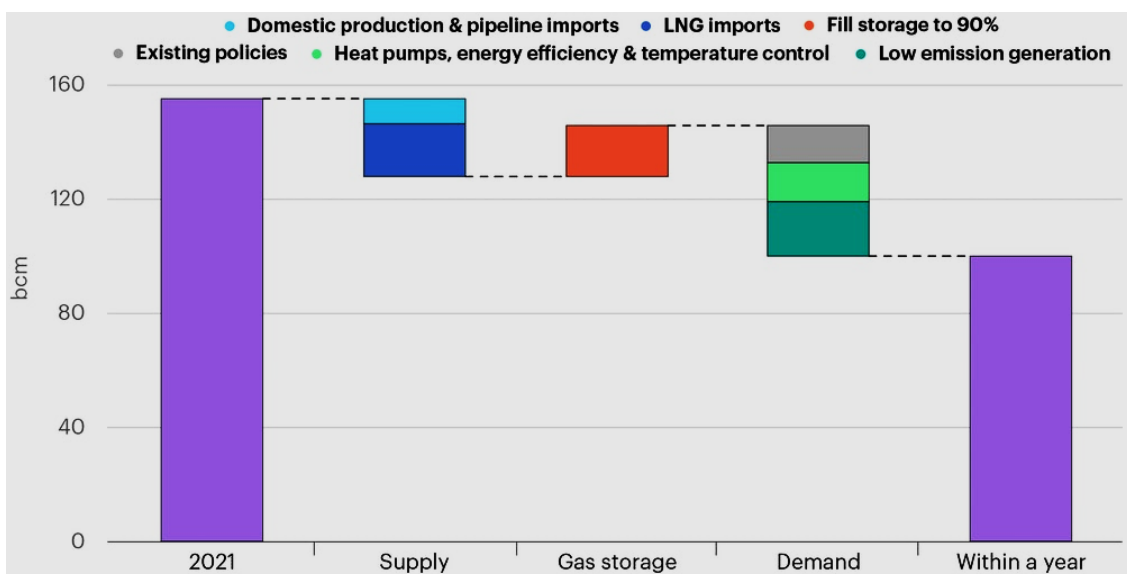
Source: IEA

Natural Gas

According to the IEA, the European Union could reduce its imports of Russian natural gas by more than one-third within a year through a combination of measures that would be consistent with the European Green Deal and support energy security and affordability. More specifically, the IEA released on March 3, 2022 a 10-Point Plan for how European countries can reduce their reliance on Russian gas supplies (9) that includes a range of complementary actions that can be taken in the coming months, such as turning more to other suppliers, drawing on other energy sources and accelerating efforts to provide consumers, businesses and industry with the means to use clean and efficient alternatives to natural gas.

On March 8, 2022, the European Commission presented proposals to reduce the EU’s dependence on Russian gas by two thirds before the end of 2022 as part of a plan to become independent from all Russian fossil fuels “well before 2030” (10). The plan, called “REPowerEU”, aims to “eliminate” Europe’s dependence on Russian gas before 2030 and outlines measures to ensure gas storage is filled up to at least 90% for next winter in order to cope with potential supply disruptions. The plan “will seek to diversify gas supplies, speed up the roll-out of renewable gases and replace gas in heating and power generation”, according to the European Commission, which says this can reduce Europe’s dependence on Russian gas by two thirds before the end of the year. The “REPowerEU” plan has two main focuses: (a) ensure gas supply security and (b) increasing the speed of deploying renewables and energy efficiency measures.

Figure 5: The implications of IEA’s 10-Point Plan to reduce EU gas imports from Russia



Source: IEA

Increase of Domestic Oil and Gas Production

It is worth noting that the “REPowerEU” plan does not make any mention of increasing natural gas production in the EU-27 to offset the reduction in imports from Russia. This is an implicit recognition of the ongoing decline in EU gas production.

Based on data provided by the Oxford Institute of Energy Studies (11), Dutch gas production in 2021 was 18.75 bcm, comprising 6.8 bcm from Groningen and 12.0 bcm from the “small fields”. It should be noted that until recently gas production from the Groningen field was a main contributor of European gas supply. The government is currently reluctant to use its powers to increase production at Groningen, or to extend its life, but in more severe market circumstances it might be persuaded to do so. Without such intervention, total Dutch production is unlikely to exceed 16 bcm in 2022, and could actually be lower. On 14 March 2022, the Dutch economy ministry announced that production at Groningen in the period October 2021-September 2022 would be 4.6 bcm. Given that production at Groningen between September 2021 and January 2022 was 1.4 bcm, this suggests that production between February and September 2022 will be 3.2 bcm, giving a total for January-September 2022 of 3.66 bcm. Given that production at the “small fields” is likely to stabilise (at best) or decline further (at worst) from the 2021 level, total Dutch production for 2022 (assuming no Groningen production beyond September 2022) is actually likely to be less than 16 bcm, a year-on-year decline of around 3 bcm, the Oxford Institute of Energy Studies adds.

In the rest of the EU, outside the Netherlands, the ongoing gradual decline in gas production continues, with production falling from 39.2 bcm in 2017 to 27.6 bcm in 2020, and a further decline to 25.7 bcm in 2021. A substantial proportion of this decline is accounted for by Germany, Italy, Ireland, alongside smaller declines elsewhere, which are all unlikely to be reversed in the foreseeable future. In Denmark, the Tyra gas processing and export centre (which processes 90% of Danish gas production) was shut down in September 2019 for extended maintenance and is now not expected to restart until June 2023. Moreover, Danish gas production is forecast to rebound only to 2.7 bcm per year by 2025. If another 2 bcm year-on-year decline occurs in 2022, the total decline in EU-27 gas production could be 5 bcm, based on data provided by the Oxford Institute of Energy Studies.

Outside the EU-27, there is no technical or commercial flex in UK gas production, but there is expected to be a modest recovery in 2022. Gross production fell sharply from 39.3 bcm in 2020 to 32.5 bcm in 2021 due to temporary shutdowns related to project-related offshore investment, and is expected to recover to about 35-36 bcm in 2022. From an EU perspective, this additional UK production could help to increase the re-export from the UK to the EU of both pipeline imports from Norway and LNG from elsewhere.

Overall, gas production in the EU-27 is likely to decline modestly even if production at Groningen is preserved at its present level, and production is not halted in mid-2022 as planned. Otherwise, the decline may be steeper. In the event that the planned cessation of production at Groningen takes place, even the rebound in UK production will not be sufficient to prevent a modest overall decline in European (EU + UK) production.

Despite the aforementioned ominous environment, several European countries should be able to increase their gas production in order to meet their gas demand and decrease their dependence on Russian gas imports. For instance, Norwegian energy operator Equinor recently announced that, alongside its partners and Norwegian authorities, it will bump up gas output to Europe in the coming months, providing greater quantities of the energy source to try and offset booming prices and supply shortages. [\(12\)](#)

More specifically, increased production permits issued by the Ministry of Petroleum and Energy will allow Equinor to maintain high production levels at its Troll, Oseberg, and Heidrun gas fields. Following these permits, the Oseberg and Troll fields will increase exports by around 1 bcm, while the Heidrun field will increase gas exports by 0.4 bcm for the 2022 calendar year. The group's Hammerfest LNG unit is also scheduled to come online from mid-May this year, providing more than 6 bcm of gas per year from the Barents Sea. With these increases in gas production, it is hoped that Norway will be able to fill the gaps left by the loss of Russian imports as sanctions against the nation come into effect. According to Equinor, Norway currently contributes 25% of gas demand in the EU and Britain, and is the seventh largest gas producer in the world.

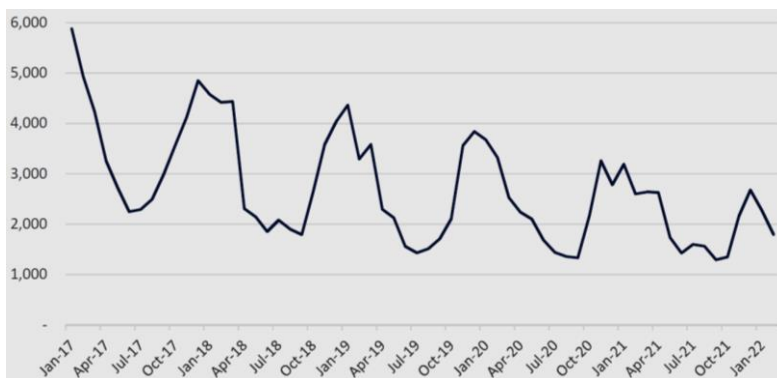
Apart from certain European countries that are already gas producers and they can increase their gas production, there are also some other countries that can reduce their reliance on Russian gas imports through the development of indigenous gas production. Greece is such a case and it has already announced that it will speed up gas exploration, aiming at new exploratory drilling, in more than two decades, by the end of 2023. More specifically, Energean, the sole oil producer in Greece, is committed to carry out a test drilling at an onshore block in the west of the country. Greece also wants to conclude a first round of seismic surveys to identify any potential gas fields it could tap in both onshore and offshore areas in western Greece and off the island of Crete by March 2023, according to a presentation by the Hellenic Hydrocarbon Resources Management. [\(13\)](#)

Energy Security Implications

European domestic gas production is in long-term decline. The Netherlands accounts for roughly half of EU-27 gas production and gas production in both the Netherlands and the rest of the EU declined at

approximately the same rate between 2017 and 2021. As a result, EU-27 gas production declined from 83 bcm in 2017 to 51 bcm in 2021, based on data provided by the Oxford Institute of Energy Studies (14). Outside the EU-27, UK net gas production declined slowly from 39 bcm in 2017 to 36 bcm in 2020, followed by a dip to an estimated 29 bcm in 2021 due to maintenance held over from 2020. Although UK production is set to rebound in 2022, the overall picture is of an ongoing decline in both annual production volumes and seasonal “swing”¹. This leads to the conclusion that, in the event of a curtailment of Russian pipeline supplies to Europe, production cannot ramp up to any meaningful extent to offset the loss of the Russian supplies.

Figure 6: European gas production, mcm per month, January 2017-January 2022



Sources: OIES, ENTSOG

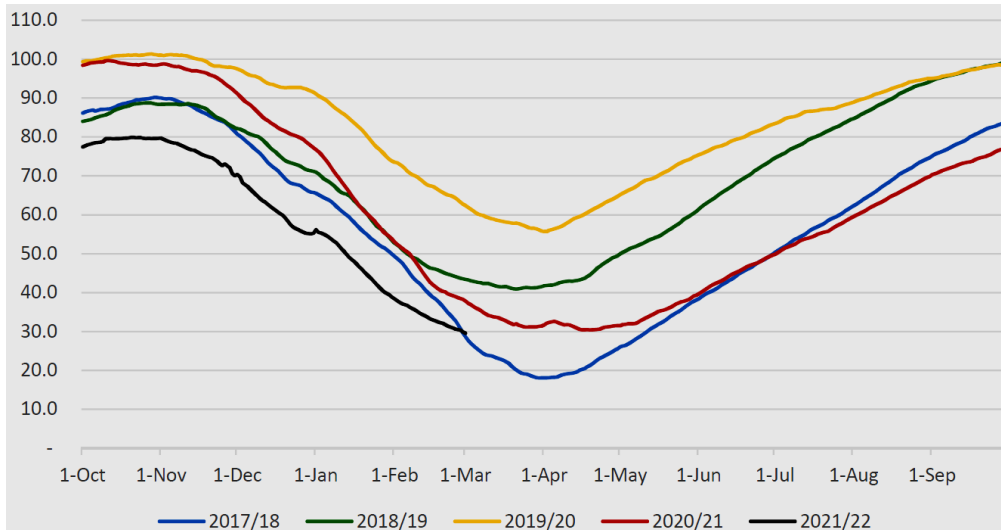
The topic of gas storage has been prominent in discussions of European gas-related energy security. In Europe as a whole, there is the capacity to hold around 100 bcm of storage stocks, which is equivalent to one-fifth of annual demand. At the start of winter 2021/2022, European storage stocks were around 10% lower than would have been expected in a “normal” year. However, a mild winter and related slower storage withdrawals have meant that European storage stocks on February 28 were similar in volume to those held on February 28 in 2017 and 2018, although still significantly lower than stocks held on February 28 in 2019-2021. As a result, the ability to withstand any curtailment of Russian flows through drawing down on storage is limited.

As several energy analysts support, Europe’s independence from Russian oil and gas will be the necessary historical correction of a geopolitical paradox. Europe’s economic growth and development has been heavily based thus far on funding Russia through energy, which turned out to be the greatest threat for the EU acquis. According to the Central Bank, Russia’s total exports reached \$489.8 billion in 2021. Of that, crude oil accounted for \$110.2 billion, oil products for \$68.7 billion, pipeline natural gas for \$54.2 billion and LNG \$7.6

¹ The ability to raise production in winter to meet higher demand and lower production in summer, also in line with lower seasonal demand.

billion (15). Even now, after Russia’s unilateral declaration of war against Ukraine, Moscow is still funded through payments for energy imports from consuming European countries.

Figure 7: European gas storage stocks, bcm



Sources: OIES, GIE

Europe does not appear to have a “plan B” to face the current crisis, while the European Commission is desperately trying to formulate a workable response as its “REpowerEU” plan shows. Meanwhile, energy prices have nearly doubled since last year. Most likely, they have not yet peaked. So, turning to alternative countries for energy procurement is one solution that would not incur the greatest cost. In view of the substantial policy and infrastructure obstacles involved, which a decoupling from Russian energy entails, it is very important to work out a pragmatic approach in both oil and gas supplies. It is becoming clearer by the day that Europe will need to change course and aim towards a more self-sustaining energy supply mode. In that context, it is necessary to stress the importance of indigenous hydrocarbon production.

To this end, there are many things to be done, starting with exploitation of Europe’s own resources in all directions. The penetration of renewables in the energy and storage markets is of crucial importance not only because of their minimum energy footprint, which would align with the EU’s “Fit for 55” and net-zero emissions goals, but also because they both require high-end technologies that Europe has already made great strides on. The current energy prices, however, have forced many countries to step back to coal/lignite for electricity generation, but the fact remains that progress still needs to be made towards renewables.

Another resource to exploit is the large untapped potential of hydrocarbons in (SE) Europe. For instance, based on data provided by IENE’s latest Special Report on Greece’s Hydrocarbons, the country’s potential gas reserves are estimated to be at about 2.0-2.5 tcm (16). It is obvious that prolonged underinvestment in

hydrocarbons raises the spectre of continued price shocks and volatility. Today, EU hydrocarbon reserves are estimated in the region of 7-10 tcm, of which 4.0 tcm in the East Mediterranean region.

As mentioned earlier, the storage capacities of the (SE) European countries should also be examined. For those in the EU, new financial tools and toolkits can be introduced to energy exchange markets in support of households and enterprises. Solutions must be scalable and customisable, taking into account the degree of dependency on Russian gas that these entities face. Additionally, the technological progress towards low carbon liquid fuels and reusable carbon fuels is coming closer to commercial use. At the same time, the discussion around the energy production capabilities of nuclear power is back on the table. The construction of new gas pipeline routes, which cross neutral countries, should also be examined.

The world is once again learning an essential geopolitical lesson. If you want to be strong and carry geopolitical weight, you have to be relatively self-sufficient in terms of energy. As the present crisis clearly shows, Europe is in no position to dictate terms without incurring substantial cost to its economy. This time, the West and particularly Europe, which is suffering most of the geopolitical and cost-related consequences out of any region, have to undertake all necessary and bold actions to direct efforts to break out of the Russian energy dependency headlock, so as to create opportunities towards a sustainable economic growth model and a vigorous geopolitical presence. If not, then (SE) Europe will suffer its own fate.

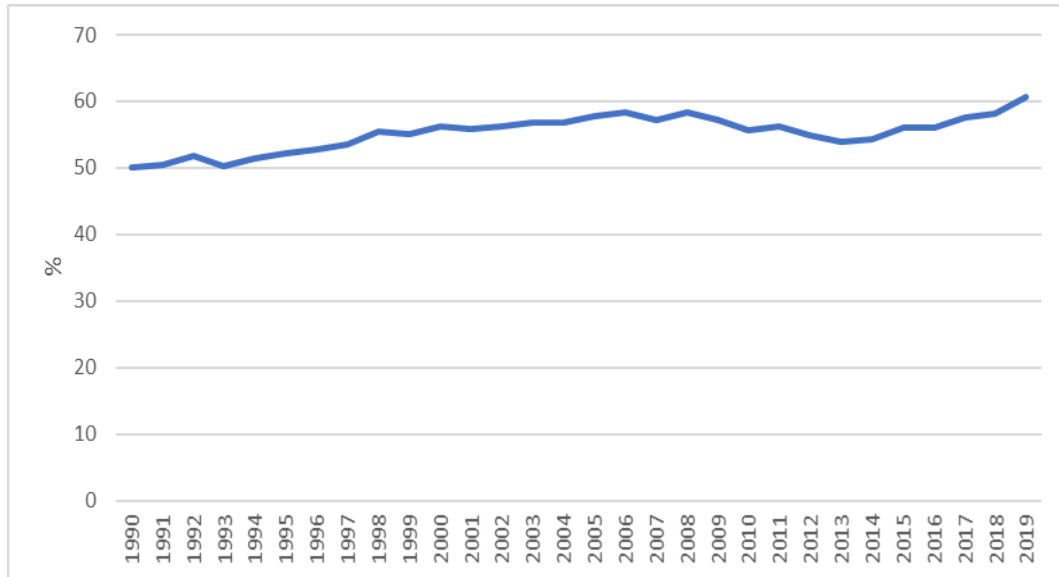
The Impact on SE Europe

According to IENE's "SE Europe Energy Outlook 2021/2022" reference study (17), the high oil and gas import dependence for most SE European countries stood at 87.0% on average for total oil and petroleum products and at 89.3% on average for gas, based on 2019 figures, with some countries even reaching 100% dependence in both categories. Such high energy dependence is way above that of the EU-27, which on average stood at 60.7% in 2019. This means the state finances of several SE European countries are servient to the vagaries of international oil prices, as we have clearly seen in the period of 2010-2014, when the oil and gas import bill of most SE European countries ballooned to unprecedented levels, thus siphoning off much needed funds in order to meet basic transportation, heating and industry requirements and the same development may also appear now as the war in Ukraine is still in progress and the majority of oil and gas imports in SE Europe is relied on Russia.

In 2019, the energy dependence of the EU-27 stood at 60.7%, the highest over the last decade. As illustrated in Figure 8, the evolution of EU-27 energy dependence has not been constant over 1990-2019; however, it has continuously stood above 50% since 1990. Regarding SEE countries, the overall energy dependence also varies significantly and averaged at 50.1% in 2019, taking into account the countries shown in Figure 9.

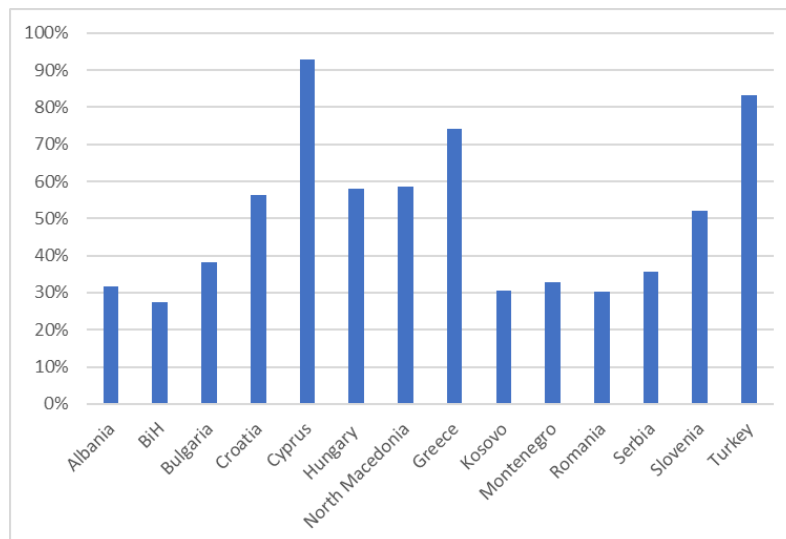
These figures are issued by Eurostat, along with the publication of the detailed 2019 annual results on energy supply, transformation and consumption in the EU.

Figure 8: Evolution of the EU energy dependence (%) over 1990-2019



Sources: Eurostat, IENE

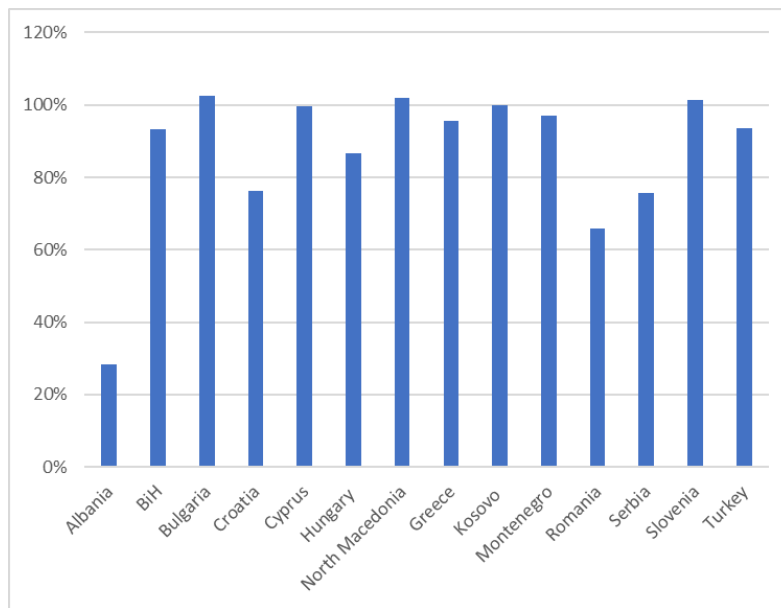
Figure 9: Energy dependence (%) in SE Europe (2019)



Sources: Eurostat, IENE

Eurostat also presents data for total oil and petroleum products as well as natural gas separately for the SEE region in 2019. More specifically, total oil and petroleum products dependence in SE Europe reached 87.0% in 2019, with Albania and Romania having the lowest dependence of 28.3% and 28.3% respectively (see Figure 10).

Figure 10: Total oil and petroleum products dependence (%) in SE Europe (2019)

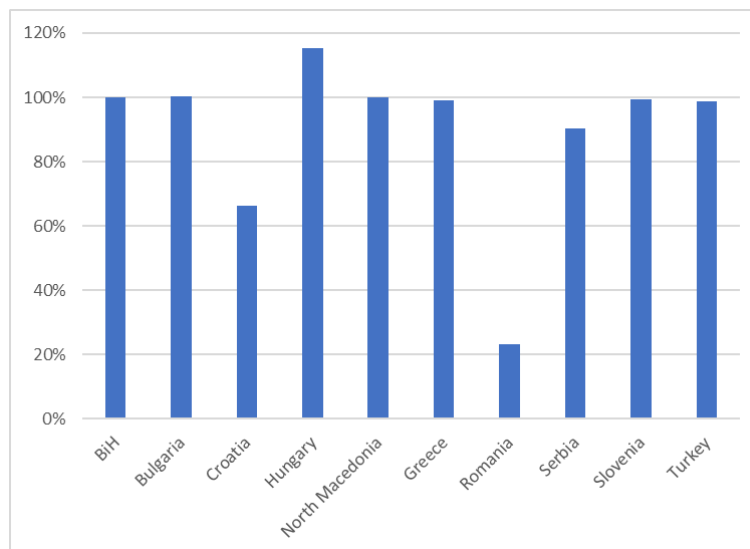


Note: A dependency rate in excess of 100% relates to the build-up of stocks.

Sources: Eurostat, IENE

The gas dependence in SE Europe reached 89.3% in 2019, with Croatia and Romania having the lowest gas dependence of 66.4% and 23.3% respectively (see Figure 11).

Figure 11: Gas dependence (%) in SE Europe (2019)



Note: Albania, Kosovo, Cyprus and Montenegro do not import natural gas.

Sources: Eurostat, IENE

Despite the fact that most of the SEE countries are highly dependent on oil and gas, which both are imported mainly from Russia and are widely used in the transport and household sectors, regional energy dependence is low, as the remaining energy used derives from hydropower and biomass, which are indigenous.

However, high import dependency becomes more problematic when it is associated with low levels of diversification, by country of origin and/or by energy source. Lack of access to affordable energy sources, disruptions in energy flows, high import dependency and wild fluctuations in prices are all seen as potential weaknesses, creating economic, geopolitical and social problems of the countries affected.

LNG

According to the “REPowerEU” plan, the EU could import 50 bcm more of LNG (e.g. from Qatar, USA, Egypt, West Africa) on a yearly basis, equivalent to 37 million tonnes of the superchilled fuel. Diversification of pipe sources (e.g. Azerbaijan, Algeria, Norway) could deliver another 10 bcm of yearly savings on Russian gas imports. Such an objective seems very challenging, given current European import capacity and the cost at which this would be done. It is worth noting that the EU and the UK together imported 67.55 million tonnes last year and 73.5 million tonnes in 2020.

Another key factor which EU planners tend to disregard is the instant availability of almost 10% of global LNG production. In other words, where are these extra quantities of LNG going to come from? Which countries are going to supply 50 bcma at short notice and at what cost? And where is this additional LNG going to be stored? These are serious questions which are begging for answers, especially if we are talking about the SE European region, where the LNG market is not so developed compared to the rest of Europe.

Regardless of developments in Ukraine, LNG demand in SE Europe is expected to grow over the next few years, as the regional market keeps expanding. The rapid penetration of LNG in the region will be similar to the recent past such as Spain, Portugal, Italy, Greece and Turkey. It appears that LNG prospects in SE Europe and the East Mediterranean in particular are far better placed than they were five years ago, with the aforementioned new projects getting ready to progress and LNG clearly emerging as a priority fuel for several industrial consumer groups helped by lower prices and increased availability.

Greece, Croatia and Turkey are the only countries in the broader Black Sea-SE European region which at present possess LNG gasification terminals which are well linked and integrated into their national gas systems. It is thus anticipated that the SE European region, from Croatia to Turkey, will play a significant role in expanding LNG trade in Europe through the construction and operation of several new LNG regasification projects, with the prospect of feeding gas quantities into the Greek, Bulgarian, Serbian and Turkish gas systems, among others.

As shown in Table, the total nameplate receiving capacity of existing LNG terminals in SE Europe currently stands at 26.6 MTPA. If we add both Gulf of Saros (7.5 MTPA) and Vassilikos (0.6 MTPA) FSRUs, combined with the planned Dioryga Gas and Alexandroupolis FSRUs (4 MTPA), which undoubtedly will increase Greece’s capacity, we are talking about a total nameplate receiving capacity by 2030, which will reach more than 40 MTPA. Therefore, we can easily appreciate the important role LNG can play over the next years in SE Europe’s gas supply and its impact on European gas supply at large, but it can make only a small contribution to Europe’s effort to reduce dramatically its reliance on Russian gas in the context of the “REPowerEU” plan.

Table: Existing and Under Construction LNG Terminals in SE Europe

| | Country | Terminal or Phase Name | Start Year | Nameplate Receiving Capacity (MTPA) | Owners | Concept |
|--------------------|---------|--|------------|-------------------------------------|--|---------|
| Existing | Turkey | Marmara Ereğlisi | 1994 | 5.9 | Botas (100%) | Onshore |
| | | Aliaga Izmir LNG | 2006 | 4.4 | EgeGaz (100%) | Onshore |
| | | Dortyol - MOL FSRU Challenger | 2018 | 4.1 | Botas (100%) | FSRU |
| | | Etki LNG terminal - Turquoise | 2019 | 5.7 | Terminal: Etki Liman (100%), FSRU: Kolin Construction (100%) | FSRU |
| | Greece | Revithoussa | 2000 | 4.6 | DEPA (100%) | Onshore |
| | Croatia | Krk - Golar FSRU | 2021 | 1.9 | Terminal: HEP (85%), Plinacro (15%), FSRU: Golar (100%) | FSRU |
| Under Construction | Turkey | Gulf of Saros terminal – Ertugrul Gazi | 2022 | 7.5 | Botas (100%) | FSRU |
| | Cyprus | Vassilikos FSRU | 2022 | 0.6 | DEFA (100%) | FSRU |

Sources: IGU, IENE

Discussion

Over the last years, energy has emerged as a top priority in Europe’s geopolitical agenda. With high energy prices and challenges for the security of oil and gas supply caused by the invasion of Russia in Ukraine, energy is again at the very center of political and economic developments. In the first place, energy prices have surged due to global supply and demand issues. Gas prices in the EU are six to ten times higher than they were a year ago, and are exerting great strains on electricity prices, due to the way these are determined in the wholesale electricity markets in Europe. These have already contributed to high inflation over the last three quarters. If energy prices stay high throughout 2022, feeding even higher inflation, this will seriously threaten the post-pandemic recovery.

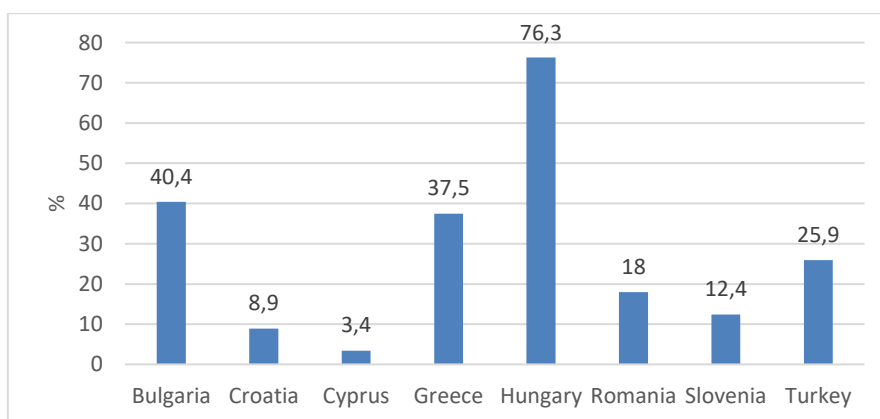
The looming crisis following EU’s decision to decouple from Russian energy, is not only a price issue but is also seriously affecting the security of energy supply. Energy has always impacted EU-Russia relations: over 40% of EU gas imports come from Russia and 60% of Russia’s import revenues come from the EU. By reducing its overall gas import ratio from Russia, Europe will be investing not only in the green transition but is also reducing its strategic dependency by developing its own indigenous gas resources. On the other hand,

in recent years, Russia has enhanced its resilience against economic sanctions by increasing its foreign currency reserves, more than Europe has done to enhance its capacity to face potential gas supply cuts. Hence, Europe should urgently consider developing EU’s strategic gas reserves and the possibility of joint gas purchasing, as the European Commission has suggested. This would strengthen the security of all at a manageable price.

Russia has a history of using energy supplies for political ends. In recent weeks, although Russia has been strictly fulfilling its contractual commitments, the Russian-state owned Gazprom has refused to send additional supplies to re-fill European storage facilities, creating further nervousness in the market. However, in the short term, Europe must tackle the immediate problem of ensuring adequate gas supplies. This means working for greater diversification of import routes and sources. The US is already Europe’s largest LNG supplier, and Europe is intensifying its cooperation with Washington in order to ensure its gas supplies from now until the end of the year. Besides the US, Europe is also talking with Norway, Qatar, Azerbaijan, Algeria and others in order to expand both pipeline gas and LNG supplies.

Europe will also have to work fast to better integrate the Iberian peninsula, which is actually an electricity island in Europe, in the European energy market because it has more LNG receiving capacities than other European countries, but lacks adequate electricity and gas interconnections to the rest of Europe. These efforts are more likely to succeed if Europe invests in better relations with potential LNG suppliers, not as a short-term fix, but as part of its interest in developing strategic partnerships, which should include hydrogen and renewables.

Figure 12: Reliance of selected SEE countries on Russian fossil fuels, 2019



Sources: IEA, IENE

Undoubtedly, energy transition will continue to affect geopolitical balances, shifting power from those controlling fossil fuels to those developing clean energy technologies. This will require countries that now rely heavily on fossil fuel exports to diversify their economies, while Europe needs to be ready to help them

take this big step forward. The net zero goal and just energy transition policies are vital for keeping emissions in control, while at the same time they deliver foreign policy benefits: a world run on clean energy will be a more stable and better world for all, although it will also create new dependencies because of the various material resources it requires, especially rare earths. Energy security has once again emerged as key policy parameter not only for Ukraine and SE Europe, but also for the entire European continent and must therefore be taken into serious consideration.

We wish to end this note by pointing out that a detailed discussion on the energy security dimension of SE Europe can be found in IENE's recently published "SE Europe Energy Outlook 2021/2022" reference study.

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