

## GCKN RUNNING ESTIMATE

### Winter is Coming – Energy Warfare



#### In the Previous Running Estimate...

- Multiple surveys conducted in October and November indicate that Russian domestic support for Vladimir Putin’s “special military operation” range between in 25% to 76%; however, polling is consistent that a majority support negotiations to end the war.
- The Kremlin has long prepared its political narrative within the media space, resulting in strong domestic support and moderate political support from Russia’s traditional partners in underdeveloped countries.
- Reasonably broad Russian influence in the “Global South” did not bring a strong, equivalent level of opposition to the UN resolution condemning Russia’s annexation of Ukrainian Oblasts.
- China pushes Russian narratives about Ukraine both independently and in coordination with Moscow, as part of its global influence campaign.
- Cooperation between Erdoğan and Putin has heavily influenced Turkish media.
- The Iranian regime supports Russia in its “special military operation,” while the Iranian people are conflicted on the matter.
- Russia has generated support across Africa through widespread information campaigns. However, that support has not led to consistent pro-Russia voting behaviors at the UN. On the other hand, there is no unanimity across the continent against Russia.

#### This Running Estimate...

- Surveys reveal that Russian domestic support for the protracted war with Ukraine is declining and concern is growing.
- Russia often uses its vast oil and gas resources as leverage to exploit global crises—such as pandemic outbreaks, wars, economic meltdowns, energy crises, etc., including those of its own making—to assert, maintain, and grow its regional influence.
- Moscow has targeted Ukrainian power-generating facilities and networks but is unlikely to break the Ukrainian will to fight.
- Europe’s past failure to invest in resilient energy systems—while restructuring its energy architecture to meet its climate goals—created a vulnerability that Russia willingly exploited to advance its geopolitical interests.
- European efforts to tap alternative energy suppliers, and invest in measures to mitigate hardships on citizens, are rapidly reducing its dependence on Russian energy and probably will replace a cornerstone of its economic architecture.
- Russia can likely cover its expenses for several years, but without a captive European energy market, it has to rely on other customers who have ready alternative suppliers and may use that position to leverage Russia.



# DOMESTIC RUSSIAN PERCEPTIONS

**Russian domestic support is declining while concern is growing for the protracted war with Ukraine, which has continued well past Kremlin promises and popular expectations at the cost of thousands of Russian lives and increased socio-economic hardships.** Contrary to Moscow's expectations, plummeting winter temperatures did not erode Ukrainian resolve and Western resilience. Instead, the West increased support by supplying weapons and equipment, including U.S. Bradley infantry fighting vehicles, French tank-killing armored combat vehicles, German Marder armored vehicles and Patriot anti-missile systems, and Polish Leopard 2 battle tanks. This significantly boosted Ukrainian fighting capability, combined with Moscow's failed efforts to deter and fragment the West and skew Ukrainian perspectives in its favor, has increased the prospect of a drawn-out war and contributed to waning domestic support.<sup>1</sup>

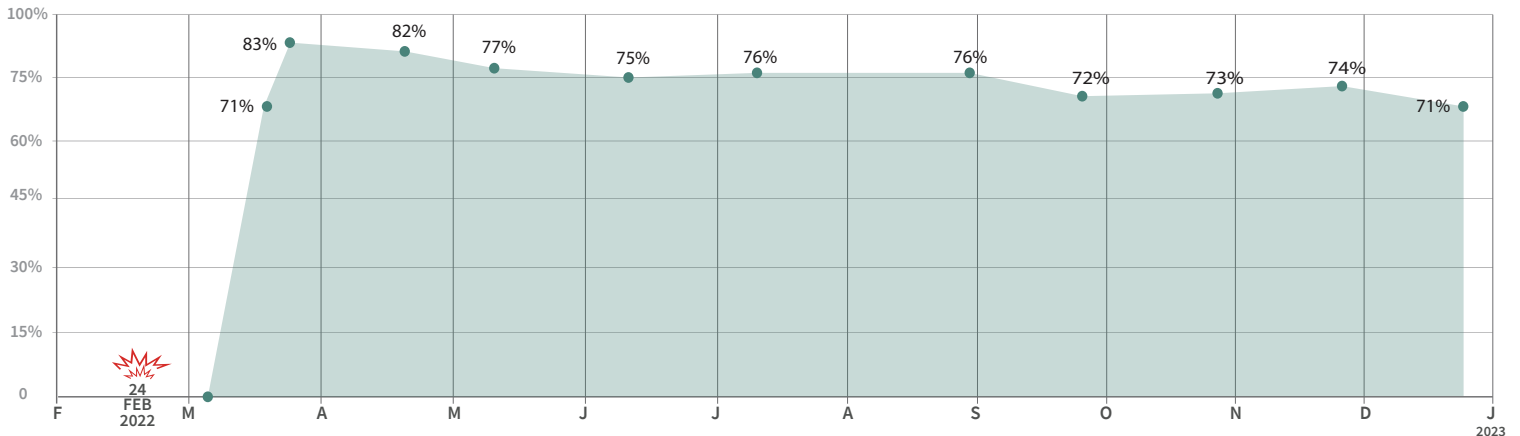
- Levada Center survey data<sup>a</sup> shows domestic support for Putin's "special military operation" fell from 74% in November to 71% in December. Respondents 55 years and above (79%), those who rely on domestic TV as the main source of news (86%), and those who approve of Putin were the most supportive of the war. Respondents

aged 18-24 years (59%), those who are skeptical of all news sources (60%), and those who disapprove of Putin (24%) are the least supportive of the war.<sup>2</sup>

- The number of Russians who closely monitor the war increased to 61% in December from 58% in November. Older Russians (55 years and above) are most closely monitoring the war (73%) compared to respondents in the 40-54 (62%), 25-39 (43%), and 18-24 (42%) age categories.<sup>3</sup>
- Concern about the war has similarly increased to 84% in December from 80% in November. Older respondents (55 years and above) are the most concerned about the war (92%), while the youngest respondents (18-24 years) are the least concerned about the war (74%). About half of the respondents (50%) support peace negotiations compared to 40% in November, a sharp decrease from the October high of 57%. Younger Russians favor peace negotiations more than older Russians.<sup>4</sup>

<sup>a</sup> Levada Center conducted the survey on 15-21 December 2022 with a representative sample of all Russian urban and rural residents comprising 1611 adults aged 18 years and older. Levada conducted the surveys as personal interviews in respondents' homes and published the survey results on 23 December 2022.

## Domestic Russian Perceptions of the "Special Military Operation"



\*It is important to note that Russian opinion polls are immediately instrumentalized by the Kremlin, repeated by the Russian media, and used to claim that the invasion is supported by the Russian public and conducted in its name.

Source: Levada Center, 2022. "The Conflict with Ukraine: Assessments of December 2022." *The Levada Center*, 23 December 2022.

## POLLING SNAPSHOT

- *Russian domestic support for the war dropped from 74% in November to 71% in December.*<sup>5</sup>
- *Russians older than 55 continue to be the most supportive of the war (86%), while those aged 18-24 continue to be the least supportive (59%) age demographic.*<sup>6</sup>
- *Russia popular concern about the war increased to 84% in December from 80% in November.*<sup>7</sup>
- *Russian state-controlled media continues to shape perspectives on the war: 86% of Russians who rely on domestic television for news support the war, while 60% of those who are skeptical of the media support the war.*<sup>8</sup>
- *50% of Russians support peace negotiations, up from 40% in November. 57% of Russians supported peace negotiations in October.*<sup>9</sup>
- *In late December 95% of Ukrainians were confident in victory over Russia, according to the Kyiv International Institute of Sociology.*<sup>b, 10</sup>
- *A November 2022 poll conducted by the Rating Sociological Group found that 75% of Ukrainians are proud of their country, up from 33% in 2021, and most Ukrainians are optimistic about the future of their country.*<sup>c, 11</sup>
- *The International Organization for Migration found that only 7% of Ukrainians “are actively considering leaving their place of residence,” but approximately 67% are not willing to leave their homes despite long-term power outages.*<sup>12</sup>

b The Kyiv International Institute of Sociology interviewed 2,007 people by phone from Dec. 19 to 25, 2022. The sample analysis was derived from all regions of Ukraine, with the exception of the occupied territories of Donbass and Crimea. SOURCE: [https://kiis.com.ua/materials/pr/20230115\\_g/%D0%9F%D1%80%D0%B5%D0%B7%D0%B5%D0%BD%D1%82%D0%B0%D1%86%D1%96%D1%8F%20%D0%BC%D0%BE%D0%BD%D1%96%D1%82%D0%BE%D1%80%D0%B8%D0%B-D%D0%B3%D1%83%2C%202022%20%E2%80%94%D1%84%D0%B8%D0%BD%D0%B0%D0%BB.pdf#page=29](https://kiis.com.ua/materials/pr/20230115_g/%D0%9F%D1%80%D0%B5%D0%B7%D0%B5%D0%BD%D1%82%D0%B0%D1%86%D1%96%D1%8F%20%D0%BC%D0%BE%D0%BD%D1%96%D1%82%D0%BE%D1%80%D0%B8%D0%B-D%D0%B3%D1%83%2C%202022%20%E2%80%94%D1%84%D0%B8%D0%BD%D0%B0%D0%BB.pdf#page=29)

c 19th nationwide poll conducted by the Rating Sociological Group of Ukrainian citizens aged 18 and older from all regions, except for the temporarily occupied territories of Crimea and Donbas, as well as territories where there was no Ukrainian mobile communication, took part in the 19th nationwide poll held on November 20-21, 2022. The study was based on a random sample of mobile phone numbers. The sample is 1,000 respondents. The sampling error with 0.95 confidence: no more than 3.1%. SOURCE: <https://www.ukrinform.net/rubric-society/3660229-threequarters-of-citizens-proud-of-ukraine.html>

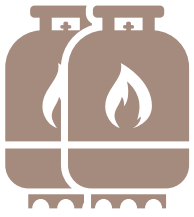
## RUSSIA: LEVERAGING ENERGY TO WEAKEN WESTERN COALITION

***Russia often uses its vast oil and gas resources as leverage to exploit global crises—pandemics, wars, economic meltdowns, energy crises, etc., including those of its own making—to assert, maintain, and grow its regional influence.***

For the past several decades, Moscow has fomented European energy dependence by exploiting the conditions of resource scarcity (oil and gas) and infrastructure deficits (pipelines and refineries) to assert regional dominance and counter American influence in the region.<sup>13, d</sup> Since invading Ukraine and the subsequent global backlash, the Kremlin has used Russia's significant oil and gas advantage as a geopolitical weapon to intimidate Europe and frustrate the growing global alliance

against the invasion.<sup>14</sup> However, despite its significant energy leverage, the country is now characterized by the juxtaposing forces of economic peril alongside substantive efforts to maintain the trajectory of a floundering war. This, in turn, emboldens Ukraine to resist Russia, motivates Europe to divest its reliance on Russian energy, and creates geostrategic and economic anxieties for the Kremlin, forcing it into a more aggressive energy confrontation with Europe.<sup>15</sup>

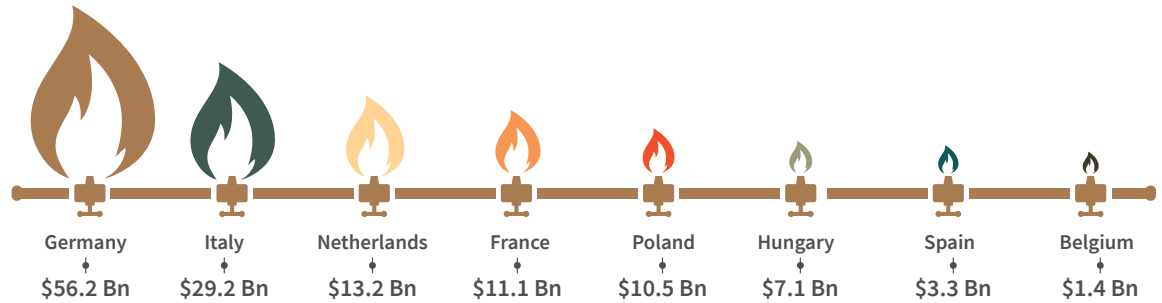
d Russian use of oil and gas to gain and maintain power and influence in Europe over the United States was the subject of *Occupied*, a successful and internationally acclaimed Netflix series from Norway. Source: <https://www.netflix.com/title/80092654?source=35>. For a TRADOC G2 review of *Occupied*, see *Red Diamond* Vol 10, Issue 4, pg 55 <https://community.apan.org/wg/tradoc-g2/operational-environment-and-threat-analysis-directorate/m/documents/312749>



## 2021 Russia's natural gas exports

Countries by billions of cubic meters imported from Russia

**45% of federal budget**



GCKN, Source: BBC; IEA. Estimates for 2021

- Russia has the world's largest natural gas reserves, is the largest natural gas exporter in the world, and is a major crude oil producer. The Russian economy is dependent on oil and gas, which accounted for 45% of its federal budget in 2021.<sup>16</sup> Because of its significant energy wealth, Russia routinely competes with the United States and Saudi Arabia as the top three oil producers in the world, for a dominant share of the market. As Europe's primary and most convenient supplier of gas, Russia uses energy as a lever against Europe, sometimes reducing the supply of natural gas flowing westward, including recently slashing European energy supplies in retaliation for Western sanctions.<sup>17</sup>
- A key factor in Moscow's decision to invade Ukraine was its ability to exploit Europe's energy dependence to keep Europe on the sidelines.<sup>18</sup> Even as the invasion flailed, Moscow banked on leveraging energy during an expected bitter winter. However, Russia did not expect Europe's

pragmatic response of seeking alternative energy supplies and investing billions of dollars in palliatives to cushion the effects of Russian energy cuts. A warmer-than-normal winter further aided Europe.<sup>19</sup>

- Moscow's reliance on its energy superiority to prosecute its Ukrainian invasion is not unexpected or unforeseen. As GCKN argued in its 2020 assessment of Russian exploitation, "Russia will continue to exert pressure and influence on its dependent energy consumers by threatening supply. United States allies and partners, who depend on Russian energy, may be compelled to withhold specific areas of support for key U.S. interests."<sup>20</sup> At the time of the assessment, GCKN did not fully anticipate the European response or how quickly Russia's historical leverage may be challenged within Europe.<sup>21</sup>



**Resource Scarcity:**  
Demand for goods and services is greater than the available supply.

**Infrastructure Deficits:**  
Inadequacy of systems and institutions that facilitate basic services and needs.

GCKN, Source: Exploitable Conditions Framework (ECF)<sup>22</sup>



# RUSSIA: ATTACKS ON ENERGY INFRASTRUCTURE EMBOLDENS ITS ADVERSARY

**Moscow has targeted Ukrainian power generating facilities and networks but is unlikely to break the Ukrainian will to fight.** During the first months of the invasion, fighting in Kyiv, Chernihiv, Sumy, Kharkiv, Lugansk, Donetsk, Zaporizhzhia, Kherson, and Mykolaiv regions resulted in significant damage to Ukraine's gas and electricity networks. Russia also used Ukrainian energy facilities, including the Chernobyl and Zaporizhzhia Nuclear Power Plants, as shields from where it launched attacks against Ukrainian forces and civilian targets, increasing the prospect of a nuclear disaster.<sup>23</sup> In October, following the Ukrainian targeting of the strategic Kerch Strait Bridge, Russia conducted massive attacks against Ukraine's energy sector, damaging thermal power plants in the Lugansk and Donetsk regions and solar and wind power stations in the Zaporizhzhia and Kherson regions.<sup>24</sup>

- In September 2022, Ukrainian President Volodymyr Zelenskyy stated that Russian targeting of Ukrainian energy infrastructure aimed to make the Ukrainian population “suffer,” and predicted a “very difficult” winter.<sup>25</sup> In October, after a series of setbacks in southern and eastern Ukraine, Russia escalated attacks on Ukrainian energy infrastructure, damaging about 50% of the infrastructure and forcing the Ukrainian energy company, Ukrengo, to report a 50% deficit in energy production in December. According to Time magazine, at any given time between two and 10 million Ukrainians were without power, heat, and/or water due to the Russian attacks on Ukrainian energy infrastructure.<sup>26</sup>
- In anticipation of Russia targeting Ukrainian energy infrastructure, mayors and other top government officials began preparing citizens for a harsh winter. Their efforts helped to blunt the effects of the October attacks that damaged about 30% of Ukraine's infrastructure within the first 24 hours,<sup>27</sup> and likely stoked Ukrainian enthusiasm on the prospects of winning the war. A late December survey by the Rating Sociological group showed 95% of Ukrainians were confident of victory over Russia.<sup>e</sup>  
<sup>28</sup> Separate polling of Ukrainian-held territories shows overwhelming support for the Ukrainian war effort and an optimistic view of the future. Hence, Russia's use of energy warfare has not reduced Ukrainian resilience and

will to fight, which may have been aided by warmer than typical winter temperatures.<sup>29</sup>

## WARMER THAN AVERAGE WINTER (SO FAR) REDUCES POTENTIAL EFFECTS ON THE UKRAINIAN POPULATION FROM RUSSIAN TARGETING OF ENERGY INFRASTRUCTURE

According to the World Bank's Climate Change Knowledge portal, Ukraine's mean winter (December–March) temperatures range from 23 to 36 degrees Fahrenheit. December and January are typically the coldest months of the year.<sup>30</sup> Average temperatures in Kyiv during December 2022 ranged between 27 and 35 degrees Fahrenheit and in January 2023 between 27 and 33 degrees Fahrenheit. The lows for both months were several degrees above the historical average.<sup>31</sup> The warmer-than-average temperatures continued in February and the forecast for March are for this trend to continue, with highs mostly above freezing and lows mostly near freezing.<sup>32</sup>

- As the war persists amid Moscow's targeting of critical infrastructure, Ukrainians have become increasingly defiant. Social media posts are scornful of Russia's energy warfare, encourage perseverance, and promise victory for Ukraine.<sup>33</sup> In addition, Moscow's targeting of energy infrastructure has deepened Ukrainian hostility toward Russia, with Ukrainians describing the Russian military as “monsters,” “evil,”<sup>34</sup> “inhuman beasts,” and “orcs.”<sup>35</sup>

<sup>e</sup> Survey conducted by the Kyiv International Institute of Sociology from Dec. 19 to 25, 2022. 2,007 people were interviewed by phone interview in all regions of Ukraine, with the exception of the occupied territories of Donbass and Crimea. SOURCE: [https://kiis.com.ua/materials/pr/20230115\\_g/%D0%9F%D1%80%D0%B5%D0%B7%D0%B5%D0%BD%D1%82%D0%B0%D1%86%D1%96%D1%8F%20%D0%BC%D0%BE%D0%BD%D1%96%D1%82%D0%BE%D1%80%D0%B8%D0%BD%D0%B3%D1%83%2C%202022%20%E2%80%94%20%D1%84%D0%B8%D0%BD%D0%B0%D0%BB.pdf#page=29](https://kiis.com.ua/materials/pr/20230115_g/%D0%9F%D1%80%D0%B5%D0%B7%D0%B5%D0%BD%D1%82%D0%B0%D1%86%D1%96%D1%8F%20%D0%BC%D0%BE%D0%BD%D1%96%D1%82%D0%BE%D1%80%D0%B8%D0%BD%D0%B3%D1%83%2C%202022%20%E2%80%94%20%D1%84%D0%B8%D0%BD%D0%B0%D0%BB.pdf#page=29)



# EUROPEAN DEPENDENCE ON RUSSIAN ENERGY: A KEY FACTOR IN THE KREMLIN'S CALCULUS

**Europe's past failure to invest in resilient energy systems—while restructuring its energy architecture to meet its climate goals—created a vulnerability that Russia exploited to advance its geopolitical interests.** Europe's ambitious environmental commitments under the Kyoto Protocol, despite its growing energy consumption and limited energy resources, increased its dependence on the importation of fossil fuels—particularly oil and natural gas—and primed it for Russian exploitation. The physical, economic, and political risks to Europe's energy security resulting from overdependence on Russian energy have been enormous. It also made Europe leery of pushing Russia too hard, even on issues for which it has consensus.<sup>36</sup>

- Germany's decision to phase out its nuclear reactors following the 2011 Fukushima disaster exerted enormous pressure on Europe's energy supplies.<sup>37</sup> When it eliminated nuclear energy, which does not emit greenhouse gases and had been an efficient and safe energy source in Western Europe, Germany compromised Europe's energy sustainability and forced the region's energy systems to depend on imported natural gas, mostly from Russia.<sup>38</sup>

- The European Union and Germany's approval of the controversial Nord Stream 2 pipeline to carry Russian gas to Europe, despite resistance from the United States and Ukraine, created a monopoly for Gazprom—the Russian gas giant leading the project—and curtailed the amount of other energy available.<sup>39</sup> While Nord Stream 2 made it easier for global suppliers to compete through “spot markets” with tradable contracts and lowered average energy costs, it rendered Europe's natural gas systems vulnerable to Russian manipulation.<sup>40</sup>
- Europe's failure to invest in natural gas storage and pipeline interconnections, which could buffer against crises such as the Ukrainian war, increased their susceptibility to Russian energy exploitation.<sup>41</sup> Storage tanks and interconnecting pipelines are expensive to build but can hold reserve energy and address shortages in parts of the system by temporarily supplying natural gas from unaffected parts.<sup>42</sup> Moscow has exploited Europe's weak reserve base to impose gas embargos it is convinced the EU cannot outlast.



Pipelines Into Europe From Russia, map, OEI; Source: waauch; The Petroleum Economist LTD.

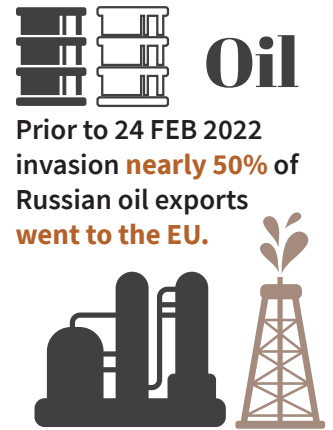
# EUROPE SET TO NEUTRALIZE RUSSIAN ENERGY TYRANNY

**European efforts shift to alternative energy suppliers and invest in measures to mitigate hardships on citizens are rapidly reducing its dependence on Russian energy and probably will replace a cornerstone of its economic architecture.** Moscow's aggression towards Ukraine and reaction to Western sanctions—including cutting energy supplies to several European countries—motivated deep introspection among European countries, leading to their decision to rapidly move away from Russian oil and gas. Over the past several decades Moscow leveraged its regional energy dominance to intimidate Europe and pursue its interests with only piecemeal European opposition but was not prepared for a near-unified European resistance to its invasion of Ukraine. The invasion, overwhelmingly considered to be an unprovoked attack on Ukrainian sovereignty, aided by the EU's sanctions against Russian energy,<sup>43</sup> motivated Europe to break away from its self-imposed and contract-bound energy obligations to Russia.<sup>44</sup> The EU oil ban and price cap are costing Moscow about \$172 million daily, and that cost may rise as additional EU restrictions are implemented.<sup>45</sup> Given the limited indigenous energy resources in most European countries, Europe has a vital interest in intensifying energy dialogue with its closest partners to minimize the physical, economic, and political risks to the security of energy supplies for both importing and exporting countries.

- In 2021, Russia supplied 24.8% of the EU's oil<sup>46</sup> and was by far the largest supplier of oil to several European countries including Slovakia (96%), Hungary (58%), and Germany (35%), according to Eurostat.<sup>47</sup> In the first quarter of 2022, 26% of the EU's oil imports came from Russia,<sup>48</sup> accounting for nearly half of Russia's overall energy exports.<sup>49</sup> Reliance on Russian energy made Europe initially leery of taking a

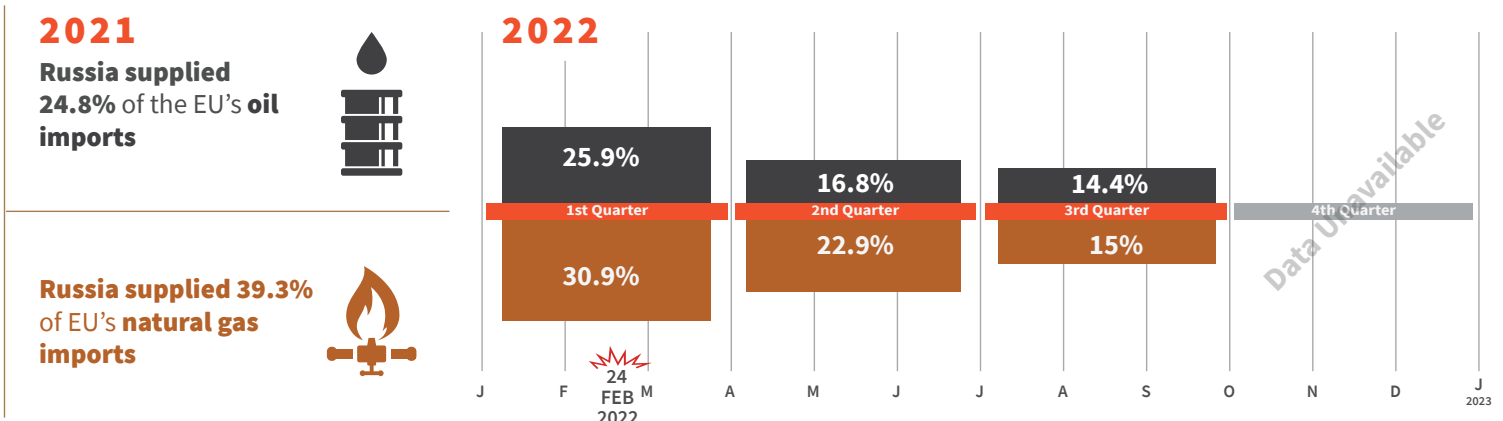
stance against Russia<sup>50</sup>

- In a sign it is moving away from Russian energy, EU oil imports from Russia fell from 26% in the first quarter to about 17% in the second quarter of 2022 and 14% in the third quarter.<sup>51</sup> The EU, G7, and Australian price cap of \$60 on Russian seaborne oil exports and an EU ban on Russia oil imports facilitated the reductions. Oil supplies to Bulgaria, Slovakia, and Hungary—which are heavily dependent on Russian energy and have fewer alternatives—are temporarily exempted from EU sanctions.<sup>52</sup> Although Russia sold over 100 billion Euros worth of oil to the EU between February and September 2022,<sup>53</sup> the overall percentage of Russian oil exports to the EU fell to 27% in November from 50% before the invasion.<sup>54</sup>
- The EU imposed a ban on all direct Russian coal imports on 10 August 2022. The coal ban includes a yet-to-be-enforced provision against EU-owned ships transporting Russian coal to third countries. Turkey and some EU countries have taken advantage of this lack of enforcement, with 2/3 of ships carrying Russian coal to Turkey owned by EU members. With Turkey's intervention, Russia has recouped nearly half of its losses from the EU coal ban.<sup>55</sup>



GCKN, Source: reuters.com

## Russian-Supplied Oil & Gas Imports to EU



GCKN, Source: ec.europa.eu

- Over the last decade, the implementation of the EU’s Green New Deal produced about a 50% reduction in its domestic natural gas production, leading the EU to import 80% of its gas.<sup>56</sup> In 2021, Russia was the EU’s largest supplier of natural gas (39.3%) but following post-invasion EU sanc-

tions, Russian gas supplies to the EU have dropped from 31% in the 1<sup>st</sup> quarter to 23% in the 2<sup>nd</sup> quarter and 15 in the 3<sup>rd</sup> quarter of 2022,<sup>57</sup> a net reduction of 66% compared to an increase of 53% for other partners.<sup>58</sup>

## RUSSIA SEEKS ECONOMIC RESILIENCE AS IT TURNS TO OTHER CUSTOMERS FOR OIL AND GAS

***Russia can likely cover its expenses for several years, but without a captive European energy market, it will need to rely on other customers who have ready alternative suppliers and may use that position to leverage Russia.*** Russia may retain sufficient gold, Chinese yuan, and euros reserves to cover security and social expenditures for several years, despite heavy Western sanctions and growing pariahdom.<sup>59</sup> As oil and gas is the primary source of revenue for Moscow, Russia has sought to compensate for the vast reduction in European and other Western purchases by increasing trade with China, India, and other non-Western countries such as Pakistan and some African nations, using oligarchs and the same shipping networks Iran uses to get around sanctions.<sup>60</sup> The EU embargo and price cap on Russian crude have not yet had an effect as prices remain well below the EU-imposed \$60/barrel limit.<sup>61</sup>

- China and India have their own refineries and are purchasing Russian crude at cheap prices and in some cases are re-exporting marked-up refined oil products. This will force Russia to sell refined fuel to smaller markets but could also result in fewer Russian refined products on the market, driving up global prices.<sup>62</sup>

- Most Russian natural gas is delivered through pipelines, most of which were built to send gas to Europe. Russia has only one gas pipeline to China, and new pipelines and liquified natural gas (LNG) facilities, necessary to deliver gas by ship, take years to build. Moscow approved plans in 2021 to expand its LNG capacity from below 10% to as much as 30% of the world market; it will take time before LNG to eastern markets can replace a significant portion of the gas that has been delivered by pipeline to Europe.<sup>63</sup>
- Domestic energy shortages and increasing prices have generated anxiety among the Russian population. Remote areas of Russia, already impacted by the war through the heavy mobilization of young men, are especially vulnerable, having poor energy infrastructure resulting in a frequent lack of heat, power, and water for millions of citizens during below-freezing winter months, while Moscow is seen spending billions on the “special military operation.”<sup>64</sup>



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