

# THE EU’S ENERGY DIVERSIFICATION FRAMEWORK: CAN THE ROLE OF THE SOUTHERN GAS CORRIDOR EXPAND?

Ali Baydarol

## Executive Summary

The European Union’s recent efforts to diversify its energy supplies away from Russian gas include increasing its reliance on both renewables and alternative natural gas suppliers. This analysis asks a central question in this regard: Can the role of the Southern Gas Corridor in the European Union’s energy diversification strategy expand? This analysis highlights the current infrastructural, temporal, and financial barriers to advancing the role of the Southern Gas Corridor. In light of these barriers, the analysis assesses whether expanding the region’s renewable energy capacity can become a viable alternative to expanding the EU’s natural gas network.



## The EU's Energy Diversification Strategy: Still Not Fully Diversified

The changing dynamics of the international gas trade are reflected in the European Union's (EU) gas markets. Before the outbreak of the war in Ukraine in February 2022, Russia was the EU's primary natural gas supplier. Russian gas constituted 40% of the EU's total gas imports, which amounted to 150 billion cubic meters (bcm) of gas annually.<sup>1</sup> In 2025, the EU reduced Russian gas imports to roughly 35 bcm, representing nearly 13% of its overall gas imports.<sup>2</sup> Although the reduction is significant, the numbers remain high. Ten member states continue to rely on Russian gas imports,<sup>3</sup> with Hungary, Slovakia, France, the Netherlands, Belgium, and Spain as the largest importers.<sup>4</sup>

Given this backdrop, in October 2025, the Council of the EU agreed to fully ban Russian gas imports by 2027 and pursue alternative natural gas supplies. This year, on January 26, 2026, the regulation on "Phasing Out Russian Imports of Both Pipeline and LNG" was officially enacted by all EU member states, thereby converting the REPowerEU roadmap—a strategy to fully phase out oil, gas, and nuclear energy imports from Russia—into EU law.<sup>5</sup> This inevitably raises the question of who will continue to supply the EU's natural gas.

As Azerbaijan is already a major supplier of gas to the EU, increasing gas imports from Azerbaijan has recently been suggested by experts and policymakers as one solution to the EU's gas supply problem.<sup>6</sup> Azerbaijan already supplies 12.8 bcm of gas to the EU and has promised to deliver an additional 7.2 bcm by 2027 (20 bcm in total) under the 2022 Memorandum of Understanding between the EU and Azerbaijan.<sup>7</sup> However, while questions remain around the Southern Gas Corridor's transit capacity, it must first be asked whether Azerbaijan

can even supply this amount of gas to the EU by 2027—much less replace the EU's Russian gas imports. This analysis seeks answers to this question by examining the infrastructural, temporal, and financial dimensions of advancing the Southern Gas Corridor's role within the EU's energy diversification framework, particularly by increasing Azerbaijani gas to Europe. Furthermore, in light of the ongoing war in Iran and its effects on global energy markets, it assesses whether expanding the region's renewable energy capacity is a viable alternative to expanding its natural gas network.

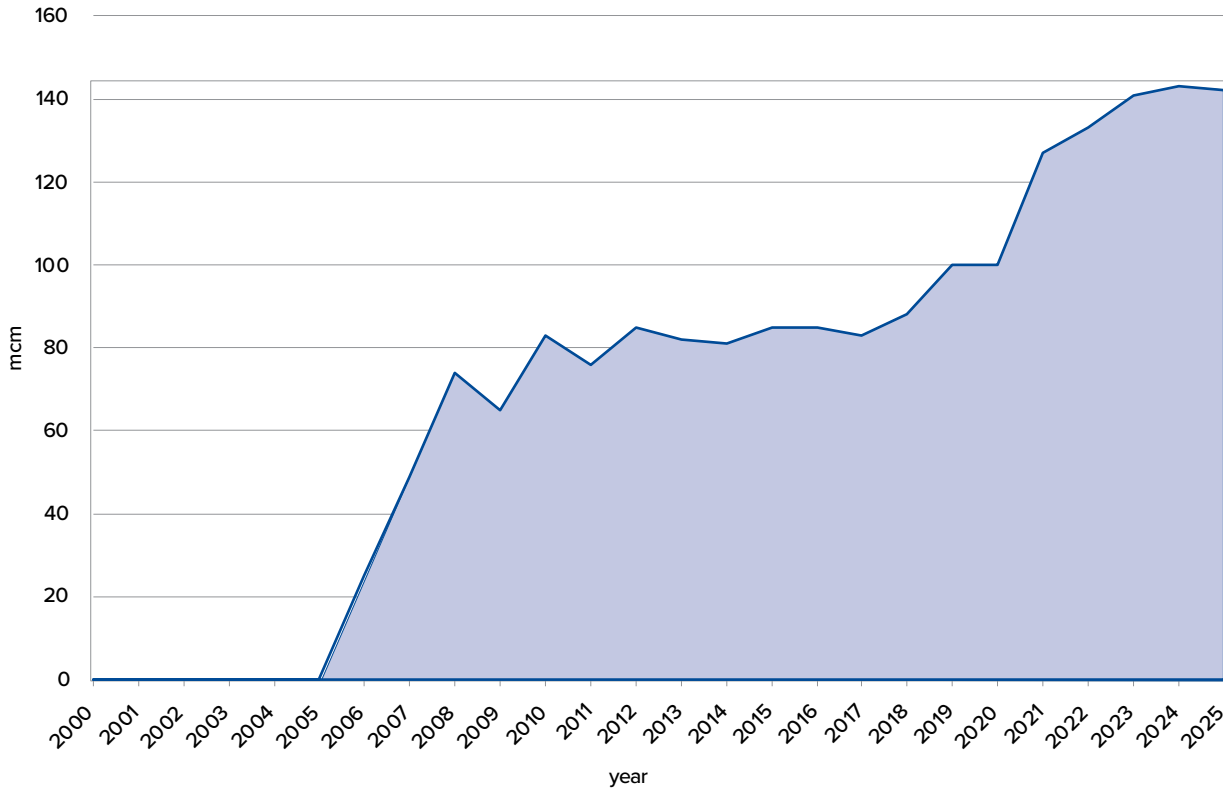
## Can Azerbaijani Gas via the Southern Gas Corridor Become a Short-Term Option for Europe?

The year 1999 represents a significant milestone in Azerbaijan's current role as a gas exporter, when it confirmed the discovery of the large-scale Shah Deniz gas and condensate field in the Caspian Sea. The launch of Shah Deniz Phase I dates back to 2006. This development made it possible for Azerbaijan to become a net natural gas exporter in 2007,<sup>8</sup> with the first gas exports made to Georgia and Türkiye.<sup>9</sup> It further enabled Baku to rapidly increase gas production in the late 2000s to nearly 80 million cubic meters (mcm) per day (see Figure 1), a total of 29.2 bcm per year.<sup>10</sup> As a result, it even began supplying gas to Russia, a major gas exporter, from 2010 onward.<sup>11</sup>

The demand for Azerbaijani gas in international markets rose further over time. As gas pricing disputes between Ukraine and Russia led to several gas crises in the late 2000s, the European Commission initiated the Southern Gas Corridor project in 2009, aimed at delivering Azerbaijani gas to Europe over the next decade.<sup>12</sup> In 2018, Azerbaijan operationalized Shah Deniz Phase II,



**Figure 1: Azerbaijan's Gas Production (Mcm Per Day)**



Source: International Monetary Fund via Federal Reserve Bank of St. Louis, "Gas Production for Azerbaijan," last updated April 19, 2024, <https://fred.stlouisfed.org/series/AZENGDPMG>; The original data was in per day equivalent. The conversion is made by taking 1 barrel as 0.159 million cubic meters.

a key development that doubled Azerbaijan's gas production capacity (see Figure 1). Currently, Azerbaijan exports roughly 25 bcm of natural gas annually.<sup>13</sup> Approximately 12.8 bcm of these exports were delivered to Europe in 2025,<sup>14</sup> with the 2022 Memorandum of Understanding between the EU and Azerbaijan setting an ambitious target of delivering 20 bcm of Azerbaijani gas exports to the EU by 2027.<sup>15</sup> The first gas send-out to Europe began in December 2020. Following this, Azerbaijan once again pushed for advancing gas production in the 2020s and currently produces more than 140 mcm per day (see Figure 1), which corresponds to a total of 52 bcm per year.

Given this backdrop, Azerbaijan has become one of the EU's strategic energy partners, supplying 5% of its annual gas imports.<sup>16</sup> However, when faced with the question of Azerbaijan's role in the EU's diversification efforts, it is not clear how much more Baku can do. On the one hand, increasing Azerbaijan's role in the EU gas trade was one of the defining goals of the aforementioned Memorandum of Understanding signed between the EU and Azerbaijan. As such, European Commission President Ursula von der Leyen declared "the EU has decided to diversify away from Russia [Russian gas] and to turn towards more reliable, trustworthy partners. And I am glad to count Azer-



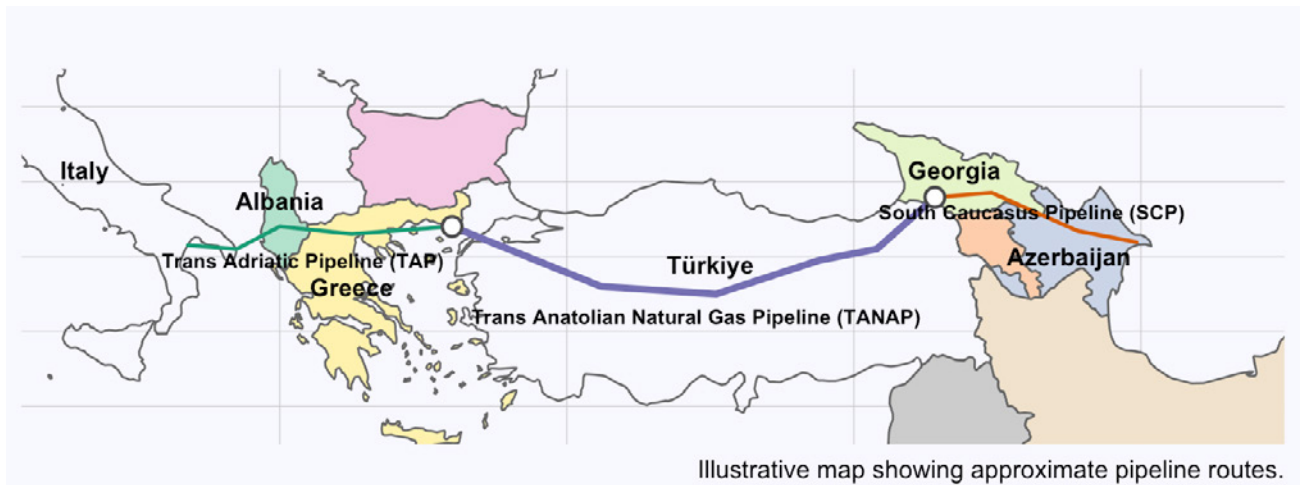
baijan among them... We will double the supply of gas from Azerbaijan to the EU.”<sup>17</sup> Yet, on the other hand, several barriers exist to Azerbaijani gas becoming an alternative to Russian gas, at least in the short run.

First, for Azerbaijan to become a core ally of the EU in the energy arena, it must significantly expand its annual gas production capacity. Azerbaijani officials have shown interest in increasing gas production by an additional eight bcm.<sup>18</sup> However, they require guarantees of long-term European demand for their gas, as well as financial support to advance Azerbaijani gas infrastructure. For instance, in 2025, Azerbaijani President Ilham Aliyev defined the “lack of long-term gas purchase contracts as barriers to expanding exports to the EU.”<sup>19</sup> The

same year, he further mentioned that the Southern Gas Corridor connecting Azerbaijan to Europe, now consisting of the South Caucasus Pipeline, Trans-Anatolian Gas Pipeline (TANAP), and Trans Adriatic Pipeline (TAP) (see Figure 2), is operating at full capacity, and additional funding is necessary for expanding its transmission capacity.<sup>20</sup>

This thereby presents the second barrier to increasing the supply of Azeri gas: the network’s transmission capacity. Azerbaijani gas connects to Southern Europe via TAP. The latter’s annual gas transmission capacity is limited to 10 bcm, with plans to expand it to 20 bcm. Currently, a new compressor unit is nearing installation in Greece, expected to boost TAP’s capacity to 11.2 bcm in 2026.<sup>21</sup> However, the rest of the expansion plan

**Figure 2:** Southern Gas Corridor



Source: The illustration is based on geographic data from Natural Earth. Map produced using R, with technical assistance from ChatGPT in setting the coordinates of pipelines; Natural Earth, “1:50m Cultural Vectors: Admin 0 – Countries,” <https://www.naturalearthdata.com/downloads/50m-cultural-vectors/>.



is unclear on the EU side. Such ambiguities negatively affect progress in deepening energy relations in Baku. This implies the need for the EU to engage in a transparent dialogue with Azerbaijan in which both sides' preferences are clear so that both parties can take corresponding policy steps.

Relatedly, Türkiye is considering advancing the transmission capacity of TANAP, the pipeline that connects Azerbaijani gas to TAP via Türkiye, from 16 to 31 bcm. To reach this goal, Türkiye will likely need to build a parallel pipeline alongside the existing one.<sup>22</sup> However, this is not feasible in the near future—most likely not by 2027—as it often takes several years to set up a parallel line. For example, the construction of the original TANAP line took roughly four years (from 2015 to 2019) and cost around USD 8.5 billion. So far, there has been no decisive investment decision or public announcement that construction work has begun. This, in turn, raises questions about the financing of the expansion plan.

Under these circumstances, the construction of a parallel line would not support the EU's 2027 target of entirely banning Russian gas. The new pipeline would only provide an additional 7.2 bcm to the EU, accounting for only 20% of the 35 bcm needed to replace Russian supplies and conditional on the above-mentioned transmission capacity upgrade and additional gas production in Azerbaijan. Thus, given the current state of the pipelines from Azerbaijan to the EU via Türkiye, physical, financial, and temporal barriers constitute core impediments to Azerbaijani gas taking on a more pivotal role for Europe in the short run, particularly by 2027. In other words, it does not seem to be possible to achieve the central goal highlighted in the 2022 Memorandum of Understanding between Azerbaijan and the EU.

## Barriers to Further Natural Gas Transmission: An Opportunity to Accelerate Renewable Energy Adoption?

Recently, the outbreak of the war in Iran, resulting in the closure of the Strait of Hormuz and a pause in Qatar's sea-based LNG exports as of early March 2026, has caused major spikes in both natural gas and petroleum prices.<sup>23</sup> Historically, the price of fossil fuel-based energy resources, including natural gas and petroleum, is highly dependent on geopolitical reconfigurations. Back in the late 2000s, disputes over gas pricing between Ukraine and Russia led to a halt in Russian gas deliveries to Europe, resulting in upward pressure on prices. In January 2009, Russian gas deliveries to Romania, Bulgaria, Greece, Serbia, and Croatia were suspended at a time when Russia accounted for over one-third of the EU's gas demand.<sup>24</sup> The war in Ukraine had a similar impact on the European gas market in 2022, significantly affecting energy prices across the continent.<sup>25</sup>

Of equal importance is the fact that the EU has recently launched several initiatives to ensure climate neutrality in Europe, most notably the European Green Deal in 2019 and Make the EU Climate-Neutral by 2050 in 2021. These provisions, which focus on the transition away from fossil fuels, inevitably come to the forefront in discussions of deepening the EU's natural gas networks.

To mitigate the risks brought on by these two factors, countries along the Southern Gas Corridor might consider investing in increasing their renewable energy capacity rather than natural gas. While it is well-known that installing new capacity to generate electricity from renewable energy sources is capital-intensive, expanding natural gas networks also comes with significant costs, as



noted above. Furthermore, the short-run costs of adopting eco-friendly technology can turn out to be a long-term investment in not only improving a country's energy infrastructure but also its energy independence. After all, once these technologies are adopted, countries' dependence on natural gas imports, as well as price volatilities in these markets, will inherently decline. Furthermore, advancing renewable technologies can lower electricity prices.<sup>26</sup> These apply not only to the EU but also to Türkiye, both of which have significant solar and wind energy capacity.<sup>27</sup> Specifically, wind and solar power accounts for more than 20% and 30% of Türkiye's and the EU's total electricity production, respectively.<sup>28</sup>

As the International Energy Agency (IEA) highlights, Azerbaijan "has excellent solar and wind resources and significant biomass, geothermal and hydropower prospects."<sup>29</sup> Azerbaijan's recent efforts to accelerate its renewable energy transition—such as the launch of 230 megawatt (MW) Garadagh Solar Power Plant in 2023 and the generation of 1 billion kilowatt-hour (kWh) of electricity<sup>30</sup>—signal a step toward utilizing its renewable energy potential in the future. Equally important, in April 2025, Azerbaijan, Georgia, Türkiye, and Bulgaria signed a Memorandum of Understanding to collaborate on green electricity transmission.<sup>31</sup> The parties discussed the prospects for making use of Azerbaijan's renewable capacity and installing a new green interconnector.<sup>32</sup> It should, however, be mentioned that despite Azerbaijan's renewable energy prospects, the IEA acknowledges that Azerbaijan's practical deployment of renewable energy resources has so far been modest.<sup>33</sup>

In addition to cost barriers, advancing renewable energy technologies will also take some time, especially when considering that replacing natural gas use in industrial manufacturing and transpor-

tation demands further infrastructural investment and technological adoption. Under these circumstances, advancing renewable energy in the short run can contribute to, but cannot fully meet, the EU's goal of phasing out Russian gas by 2027.

In the long run, however, the current geopolitical conditions, rising fossil fuel-based energy costs, and increasing renewable energy capacity provide an opportunity to advance investments in renewable energy rather than natural gas in Azerbaijan, the EU, and Türkiye.<sup>34</sup> Why not move forward with this transition?



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**Ali Baydarol** is a 2025/26 Mercator-IPC Fellow at IPC.

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### Istanbul Policy Center

Bankalar Caddesi Minerva Han No: 2 Kat: 4  
34420 Karaköy-Istanbul  
T +90 212 292 49 39  
ipc@sabanciuniv.edu - ipc.sabanciuniv.edu



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