

Key Messages:

- This brief aims to explore short-term solutions for stabilising the global gas market so that the world can continue to recover amidst the Russia–Ukraine geopolitical crisis.

Six principles need to be considered in elaborating those solutions: the centrality of the energy security issue, the importance of optimising gas infrastructure and securing natural gas supplies, the crucial nature of natural gas investment for gas market stability, the need to intensify energy diplomacy, the importance of a balanced management of energy transition, and the importance of energy access and affordability issues in developing nations, especially in Africa and Asia.

- The proposed short-term solutions consist of:
 - 1) Across-the-board ramping up of natural gas and LNG production;
 - 2) Supporting countries with idle capacities or delayed gas projects in regaining their capacity to produce and export gas, especially to the most-needed regions;
 - 3) An emergency plan initiated by the G20 group to 'reroute' LNG cargoes to the world's most-needed regions with low purchasing power;
 - 4) Optimising LNG cargo destinations by taking advantage of specific contractual agreements;
 - 5) Issuing statements that can help stabilise the short-term gas market;
 - 6) Intensifying discussions on formulating potential short-term measures to mitigate excessive volatility in prices; and
 - 7) Urgently establishing a universally accessible, real-time information platform on natural gas trade.

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Exploring Short-term Solutions to the Global Gas Crisis*

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This brief explores short-term solutions for stabilising the global gas market so that the world can continue to recover amidst the Russia–Ukraine geopolitical crisis. The proposed solutions consist of (i) across-the-board ramping up of natural gas and liquefied natural gas (LNG) production; (ii) supporting countries with idle capacities or delayed gas projects in regaining their capacity to produce and export gas, especially to the regions most in need; (iii) an emergency plan initiated by the G20 group to 'reroute' LNG cargoes to the world's regions most in need with low purchasing power; (iv) optimising LNG cargo destinations by taking advantage of specific contractual agreements; (v) issuing statements that can help stabilise the short-term gas market; (vi) intensifying discussions on formulating potential short-term measures to mitigate excessive volatility in prices; and (vii) urgently establishing a universally accessible, real-time information platform on natural gas trade.

Natural Gas Market Tightness due to Mid-term Underinvestment, Rapid but Uneven Post-COVID-19 Recovery, and the Current Russia–Ukraine Conflict

The world is going through a complex energy crisis, and natural gas is just a single dimension of it. Energy trade is now on a global level and is more interrelated and intertwined than ever before. Therefore, the consequences of the energy crisis are being felt across countries and industries in more acute ways.

First, natural gas markets had already been tight before the outbreak of the Russia–Ukraine conflict on 24 February 2022 due to underinvestment since 2015, the coronavirus disease (COVID-19) pandemic that started in 2020, the rapid but uneven post-COVID-19 recovery, and disrupted supply chains, primarily commodity supply chains. As a result, the supply of energy was not able to catch up with the robust, resilient demand during the recovery. There is an ongoing mismatch of supply and continuous, more responsive, and elastic energy demand.

* Disclaimer: This policy brief was written based on the results and findings of the G20 ETWG hybrid parallel event organised jointly by ERIA and the Ministry of Energy and Mineral Resources, Republic of Indonesia, on 29 August 2022 in Bali, entitled 'Exploring Short-term Solutions to the Global Gas Crisis.'

Second, afterwards, the situation was exacerbated by further elevated energy price levels and volatility due to the disruption in the natural gas supply following the Russia–Ukraine conflict.

European Countries' Responses to the Gas Crisis and the Damaging Effects on Developing Economies

The decline in natural gas supply from Russia has had a significant impact on the world's natural gas supply chain and led to unprecedented soaring natural gas spot prices. Countries in Europe are struggling to secure a sufficient natural gas supply as they head into the winter season. On 20 July 2022, the European Commission launched its 'Save Gas for a Safe Winter' proposal to reduce natural gas demand, and this should stay in effect until the end of the northern hemisphere's winter in 2023. The proposal was made as a measure to complement other measures, i.e. the increase in the European Union's non-Russian liquefied natural gas (LNG) imports by 21 billion cubic metres (bcm) in the first half of 2022 compared to the same period last year and their non-Russian pipeline 14 bcm import growth from Norway, Azerbaijan, the United Kingdom, and North Africa.

Gas supply in other parts of the world, especially Africa, could be significantly impacted by European countries' efforts to procure a natural gas supply in the short run, and this situation clearly creates a threat to energy security in the continent. African gas- and LNG-producing countries, such as Angola, the Republic of Congo, Senegal, Nigeria, Equatorial Guinea, and countries with significant potential, such as Tanzania and Mozambique, risk seeing increasing gas or LNG export deals and soaring foreign investment in their gas sectors whilst domestic access to energy and power, a key element in improving countries' economic conditions, has not been yet secured.

The International Energy Agency's Africa Energy Outlook 2022, published in June 2022, states that the current Russia–Ukraine crisis has sent food, energy, and other commodity prices soaring, increasing the strain on African economies, which have already been hit hard by the COVID-19 pandemic. These overlapping crises have affected many parts of Africa's energy systems, including reversing positive trends in improving access to modern energy, with 25 million more people in Africa living without electricity today than before the pandemic.

Asian countries have also started to experience serious impacts from the gas crisis. Global LNG flows are being redirected to Europe, where utilities are willing to pay more than in emerging markets. Thailand and India, amongst others, have been curbing LNG purchases

due to the high prices. Pakistan has failed to complete an LNG purchase tender for the fourth time in roughly a month. The relatively poor country, which already experiences frequent power blackouts, is reliant on energy imports, meaning it has been hit especially hard by the rising prices.

Consideration of Energy Security, the Optimisation of Gas Infrastructure and Storage Capacities, the Importance of Upstream to Downstream Investment, Energy Diplomacy, a Balanced Energy Transition, Energy Access, and Affordability

This brief suggests short-term solutions for stabilising the global gas market so that the world can continue to recover amidst the geopolitical crisis. Six principles need to be considered in elaborating these solutions:

1. Energy security is central to the global energy and natural gas market agenda. Consideration of long-term measures is important when formulating short-term measures to tackle the issues in the natural gas industry.
2. Optimisation of gas infrastructure and particularly storage capacities globally, and securing natural gas supplies, might assist consumers and producers in coming to agreeable terms in the next 6 months. Policies should raise the flexibility and robustness of natural gas supply value chains through the development of natural gas/LNG storage – underground storage or LNG storage tanks across the entire natural gas value chain – and the deployment of floating storage and regasification units.
3. Investment in natural gas from upstream to downstream is crucial for the stability of gas markets. It should be encouraged through adequate policies, and its financing should be facilitated.
4. Russia is one of the world's largest oil producers, together with the United States and Saudi Arabia. The country also has the world's largest gas reserves and is the world's largest gas exporter. Despite the current European energy crisis, energy diplomacy must be intensified, as a diplomatic solution is the only possibility.
5. Energy transition should be managed in a balanced way to ensure a robust and secure energy mix to meet current and future global energy demand. Whilst ramping up the deployment of solar, wind, and biofuels on one side, investment in hydrocarbons – more specifically in natural gas – with extensive use of carbon capture, utilisation, and storage is also required to ensure a smooth, secure, and just energy transition. The focus should be not

on the complete phase-out of hydrocarbons but their gradual replacement in favour of the cleanest possible hydrocarbons – natural gas with carbon capture, utilisation, and storage, for example.

6. Energy access and affordability are at the heart of the issue of economic and energy poverty in Africa and developing Asia. Developing nations must be given the opportunity to scale up cheaper and cleaner sources of energy to enable their sustainable, inclusive, and equitable economic development and social progress. For instance, Africa emits less than 3% of the world's energy-related CO₂ emissions currently and has the lowest emissions per capita compared to other regions. Its historical emissions are even lower. In the case of natural gas, it is crucial to help the low-income countries failing to procure LNG cargoes. A compensation mechanism or financial incentives are needed.

Natural gas, therefore, plays an essential role in achieving world recovery as it contributes to ensuring the fulfilment of basic energy needs, accelerating the energy transition process by switching from coal, complementing the flexible basic load needed by renewable electricity, and co-firing with hydrogen and ammonia.

Nevertheless, the current natural gas supply shortage and price hikes are alarming. These could seriously affect not only world energy security but also world energy transition progress as countries might opt to increase their use of coal considering it as a cheaper fossil fuel, a clear step back in the energy transition progress.

Seven Proposed Short-term Solutions for the Current Gas Crisis

1. Across-the-board ramping up of natural gas and LNG production.

World natural gas producing and exporting countries need to coordinate to ramp up their production in the short term based on the carefully calculated demand, which needs to be matched by the carefully assigned gas fields. The timely ramping up and procurement of LNG can be facilitated by enhanced dialogue with LNG exporters and other importers, increased transparency, and the efficient use of capacities at LNG regasification terminals.

Amongst the important projects that will enter into operation in 2022 are those in Iran. Between April 2022 and early 2023, the country should be able to bring onstream 130 million cubic metres/day of additional gas production capacity, which includes production from the long-delayed South Pars Gas Field Phase 11.

It is important however to stay vigilant regarding this solution. Due to the full-capacity operation of LNG facilities and the lead time for new investment, an across-the-board production increase may not be a short-term solution but a mid-term solution.

2. Supporting countries with idle capacities or delayed upstream and midstream gas projects in regaining their capacity to produce and export gas, especially to the regions most in need.

Some gas producing and exporting countries are facing economic and political constraints to finishing their upstream and midstream gas projects or simply producing and exporting at their optimal capacity. Helping countries lift these constraints should significantly contribute to filling some gas demand and supply gaps, therefore contributing to reducing gas prices and stabilising the market.

3. An emergency plan initiated by the G20 group to 'reroute' LNG cargoes to the world's regions most in need with low purchasing power.

The emergency plan aims to reroute the LNG cargoes currently swarming to Europe to world regions where demand is high but affordability is low, especially to South Asia, such as Pakistan, Bangladesh, and other countries. Recently, LNG cargoes have been flocking to Europe, but the lack of regasification facilities in Europe has hindered the direct transport of these cargoes to the European storage facilities, therefore creating an LNG oversupply situation in Europe.

One of the ways to facilitate this rerouting in the very short run is to issue and implement a short-term emergency plan involving gas traders (Shell, Total Energies, BP, etc.) that have the capacity to stock LNG supply from long-term contracts and resell them in the spot market in the regions in need at a more affordable price.

Incentives and/or compensation for the involved traders should be agreed upon and included in the emergency plan.

The plan should include not only traders but also countries that act as LNG buyers. Some buyers/countries might be in a situation where the gas crisis is less severe than in the developing economic regions, or where their countries have other energy resource alternatives, such as more developed renewable energy sources and technologies.

In the longer term, this temporary short-term emergency plan should help create more balanced shares of spot markets and long-term contracts.

4. Optimising LNG cargo destinations by taking advantage of specific contractual agreements.

Together with the rerouting of LNG cargoes from oversupplied regions, increasing the number of available LNG cargoes is crucial in the near term. Exporting countries, especially those that have some contractual freedom over the destinations, and competition for this supply with other importers, notably in Asia, must be the ones who take the initiative to optimise the operation of their LNG vessels and terminals/ports.

5. Issuing statements that can help stabilise the short-term gas market.

The European Union made an important announcement (on proposed taxonomy) on 2 February 2022 by designating natural gas as a sustainable source of energy. This sort of statement issuance needs to be followed by other international organisations and bodies, particularly with the objectives of putting a stop to negative perceptions of natural gas and encouraging investors and countries to restart investing in upstream and midstream gas infrastructures. These statements might have short-term impacts in terms of improving sentiments and, therefore, can stabilise gas markets by giving confidence and more security to investors.

6. Initiating and intensifying discussions on formulating potential short-term measures to mitigate excessive volatility in prices.

The G20 group must initiate and intensify discussions to formulate short-term measures to mitigate excessive volatility in prices. The goal of these measures is not necessarily to regulate the international LNG market, as market intervention would create more uncertainty. However, by suggesting the possibility of a coordinated investigation by competition authorities in the member countries in case of suspected price manipulations, unnecessarily high price offers may be avoided.

7. Urgently establishing a universally accessible, real-time information platform on natural gas trade.

Through cooperation with the different international institutions and bodies that hold gas market and trade data, the G20 group must initiate the creation of a real-time information platform that is accessible to all countries and market players. Such a platform would significantly increase the transparency and accessibility of the gas market, which will discourage dishonest market practices and unfair imbalances in the market situation.

Energy security is an important condition that should be ensured to allow all countries to continue with their economic recovery from the COVID-19 pandemic and make progress with their energy transition plans for achieving net zero emissions by mid-century.

We need to adhere to the reality that investment in upstream natural gas infrastructure is needed and is not a step back from our ambitious climate objectives if we continue investing in clean energy technology in more cooperative and inclusive ways internationally. No country can be left behind.

Discussions on the above points could serve as valuable inputs for elaborating implementable policy measures to be deployed soon to cope with the gas crisis. The short-term solutions discussed today are not silver bullets. Some of them would involve practical challenges. We must admit that there is no magic wand for alleviating the current crisis at once.

Nevertheless, given that the gas crisis could continue for longer and have negative impacts on global energy security and decarbonisation efforts, the G20, with its strong influence on both gas supply and demand, should consider all the available means for ameliorating the situation in collaboration with the relevant international organisations, such as the International Energy Agency, International Energy Forum, and Gas Exporting Countries Forum.

The willingness of all concerned stakeholders is imperative for bringing the gas crisis to an end.

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