

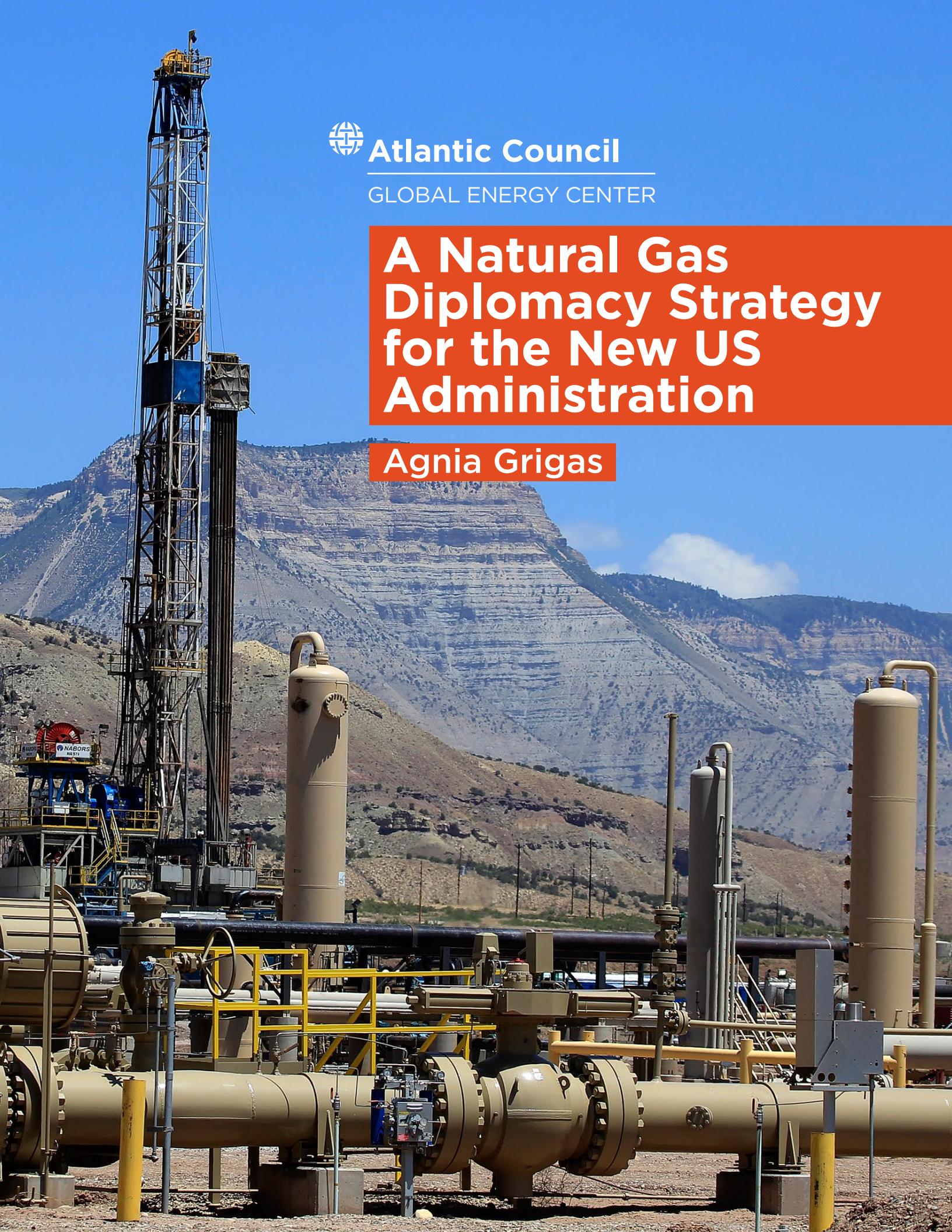


Atlantic Council

GLOBAL ENERGY CENTER

A Natural Gas Diplomacy Strategy for the New US Administration

Agnia Grigas



A Natural Gas Diplomacy Strategy for the New US Administration

Agnia Grigas

Energy Diplomacy Initiative

The **Energy Diplomacy Initiative** (EDI), as part of the Atlantic Council's **Global Energy Center**, aims to drive a global conversation on critical climate and energy security challenges, with the objective to prevent conflict and build bridges through energy ties, provide everyone with access to reliable, affordable, sustainable, and modern energy, and galvanize communities for climate action around a more stable, secure, and prosperous world.

Cover photo credit: REUTERS/George Frey. A natural gas drilling rig operates as natural gas piping rises from underground outside Rifle, Colorado, June 6, 2012.

ISBN: 978-1-61977-456-8

This report is written and published in accordance with the Atlantic Council Policy on Intellectual Independence. The author is solely responsible for its analysis and recommendations. The Atlantic Council and its donors do not determine, nor do they necessarily endorse or advocate for, any of this report's conclusions.

January 2017

Table of Contents

Executive Summary 9

Introduction..... 10

Natural Gas Markets in Transition 12

The United States in the Geopolitics of Natural Gas 14

Policy Recommendations 18

Conclusion 20

About the Author..... 20

Executive Summary

The new US presidential administration of Donald J. Trump and the newly elected Congress will have an opportunity to reassess the country's domestic natural gas policies and its natural gas diplomacy strategy in the face of transformed global natural gas markets. Natural gas is on the verge of becoming a global commodity, a development that has been spearheaded by a boom in US shale gas production, the growth of the global liquefied natural gas (LNG) trade, and a buildup of gas transport infrastructure worldwide.

As a result of the shale boom, the United States has emerged as the world's greatest producer of natural gas and is rising to become a leading exporter of LNG. In 2016, the first US LNG deliveries made their way to Latin America, Europe, Asia, and the Gulf. The United States has also been instrumental in changing the conventional practices of the international gas trade: away from a reliance on long-term contracts to the introduction of spot trading, and away from gas prices that are linked to oil to those that are linked to "Henry Hub," the foremost US natural gas trading hub. These practices are gaining wider acceptance.

As an emerging energy superpower, the United States should take on a leadership role in the global natural gas markets to support its allies in Europe, contain its adversaries, and reshape relations with rising Asian powers. Already, Russia's energy influence is waning in its historic markets in Europe, its old backyards of the Caucasus and Central Asia, and Asia where it hopes to gain new markets. By leveraging its energy influence and formulating a gas diplomacy strategy, Washington can favorably realign strategic relations between the world powers.

Continued political support for easing regulations on LNG exports, improved pipeline infrastructure in the United States, and new trade agreements would support the United States' breakout position in the global gas markets. By strengthening its cooperation with NATO countries and other allies over energy security—including by exporting technology and expertise and providing investment or funding on shale development and LNG trade—the United States would cement its leadership position in the new geopolitics of gas.

Introduction

As Donald J. Trump takes office as the forty-fifth president of the United States on January 20, 2017, his administration will have an opportunity to reassess US energy policy, specifically, its natural gas policy. This reassessment will not only be a by-product of a change in leadership in Washington, but is necessitated by the fundamental transformation of the world's natural gas markets since President Barack Obama took office eight years ago. In 2011, the International Energy Agency proclaimed that the world energy markets were entering "the golden age of gas."¹ Since then, the natural gas markets have seen an influx of new gas sources, greater liquidity, a growing liquefied natural gas (LNG) trade, a buildup of gas transport infrastructure, and an increased appetite for natural gas as a cleaner fossil fuel alternative to oil or coal. The boom in US shale gas development, which also irreversibly altered America's natural gas industry, spearheaded many of these worldwide changes. The United States emerged as the world's leading gas producer in 2011 and as an LNG exporter in 2016, with US inaugural deliveries to Brazil, India, United Arab Emirates, Argentina, Portugal, Kuwait, Chile, Spain, China, Jordan, the Dominican Republic, and Mexico. In the coming years, the United States stands to become one of the world's leading LNG exporters.

The budding US role as an energy superpower offers a number of opportunities for the new administration and the American natural gas industry. At the same time, the United States faces a number of challenges: a resurgent Russia, a vulnerable and potentially fracturing Europe, and an unstable Middle East. How can Washington leverage its natural gas endowment for diplomatic aims under these circumstances? How should the United States lead in the international gas markets given the new geopolitics of natural gas?

The geopolitics of natural gas is already undergoing a significant shift. The emergence of new gas resources and the growth of LNG trade are challenging the

half-century-long status quo of global gas relations. Traditional gas suppliers like Russia are seeing their influence wane, while gas-importing states have more flexibility and optionality in their import sources. US LNG exports add greater liquidity to the global natural gas markets and thus can help secure and diversify Europe's supplies. Direct deliveries are also possible as per US early exports to Spain and Portugal. Moreover, US LNG can contain the influence of Russian gas behemoth Gazprom and Moscow's use of gas supplies as a foreign policy tool. It can also court energy-hungry Asian powers like China, which has been trying to secure its natural gas imports and has looked to Russia as a potential supplier. If properly leveraged, America's newfound energy prowess can be an invaluable tool of

diplomacy and help ensure that US and allied leadership continues to guide the twenty-first century.

While over the past few years, US energy policy has seen divisive partisan debate over energy production, exports, and how to address climate change, the benefits of the United States' natural gas boom offer room for bipartisan agreement. The economic, climatic, security, and geopolitical gains awarded by the rise of US domestic energy production offer many benefits for the next US administration. While some would prefer to see more environmental regulation

in domestic gas production, especially in regards to fracking, and others would prefer to boost production to maximize economic and energy security benefits, at this point neither the Democrats nor the Republicans would seek to block US LNG exports or hinder the American natural gas industry. Moreover, in light of climate change concerns, many regard gas as a cleaner fossil fuel that can serve as a bridge to renewables, potentially reducing carbon dioxide emissions.

Nonetheless, President Trump's administration will undoubtedly face unexpected developments and potentially new challenges in the energy markets. Markets are fickle and cyclical. It is uncertain how long the current cycle of low oil and gas prices and tempered energy demand will last. In contrast, if low gas prices

The budding US role as an energy superpower offers a number of opportunities for the new administration and the American natural gas industry.

¹ International Energy Agency, *Are We Entering a Golden Age of Gas? World Energy Outlook 2011, Special Report 2011*, http://www.worldenergyoutlook.org/media/weowebbsite/2011/WEO2011_GoldenAgeofGasReport.pdf.



persist, will worldwide investment in LNG import and export infrastructure continue? For now, the US gas industry has demonstrated an incredible aptitude for raising efficiency and reducing costs in the low-price environment. New technological breakthroughs—for instance, in renewable energy resources—can also offer game-changing opportunities and alter the status quo. The gas market previously experienced a turnabout when the US shale boom effectively terminated earlier plans for US LNG import projects and instead launched US LNG exports.

This report sets out the realities of the transforming global gas sector, which will shape the prospects and

constraints for the next administration's domestic and international natural gas policies. In many instances, these realities present opportunities for US leadership in the newly emergent global gas markets and the new geopolitics of natural gas. These developments will be outlined region by region with a focus on the geopolitical gas triangle between Washington, Brussels, and Moscow. Additionally, the report presents a number of strategies and policy recommendations to leverage US leadership and make the most of the new opportunities in an increasingly interconnected global energy market.

Natural Gas Markets in Transition

Over the last decade, the global gas sector has witnessed changes that have no real precedent in recent history. The shale gas revolution in the United States, the growing global LNG trade, and a buildup of pipeline interconnectors and gas transport infrastructure are making gas a global commodity. Recent technological achievements and various market factors have made this transformation of the natural gas industry possible. Most evidently, in the US shale boom, long-term policy planning and changing political and economic considerations have played an important role. The shale gas revolution originated from government-led research programs of the 1970s to 1990s, which paved the way for shale formations mapping, hydraulic fracturing, and horizontal drilling technologies. In later years, bold entrepreneurship and market forces ensured success. Geopolitical considerations also played a part. For example, the United States' acute dependency on energy resources from the Middle East, and the ensuing oil shocks of the 1970s, taught Washington the important lesson that it cannot fully rely on anyone but itself.

These newly improved technologies that have allowed the United States to fully harness its unconventional gas reserves have fundamentally altered the country's gas production capabilities. They nearly doubled the former total proven reserves of natural gas from 5.8 trillion cubic meters (tm³) at the end of 2005 to 10.4 tm³ in 2015. Simultaneously, gas production rates were boosted 50 percent, from 511.1 billion cubic meters (bm³) in 2005 to 767.3 bm³ in 2015.² As a result, after a hard fought competition that lasted for over thirty years, in 2011 the United States managed to surpass Russia as the world's largest producer of natural gas.³ Most of this breakthrough came from shale gas, which quickly increased its share in US gas production: from barely 1 percent in 2000 to more than 20 percent in 2010, and then to over 50 percent in 2016.⁴ Looking forward, the future is even brighter for the American gas industry. The United States is poised to become a sizable exporter, because according to estimates, by 2020, it will add the equivalent of approximately 20

percent of total LNG volumes traded globally in 2014 into the international gas market.⁵

Growing LNG trade has also facilitated the development of a new and increasingly global gas market. It has turned gas—a previously localized and difficult-to-transport resource—into an increasingly liquid global commodity. The history of LNG trade goes all the way back to the late 1950s and 1960s when it became a commercial endeavor in the United States, North Africa, and the Middle East. However, the last decade has seen a surge in LNG trade. For example, by the end of 2015, global LNG trade surpassed the former all-time high of 241.5 million tons (mt) of 2011 and grew to a record 244.8 mt. This growth was driven by a steady increase in LNG-exporting states, which currently number at least seventeen. The leading LNG exporters include Qatar, Australia, Malaysia, Nigeria, and Indonesia. At the same time, there is a constant growth in demand. There are at least thirty-three LNG importing countries, with two newcomers, Colombia and Ghana, entering the market in late 2016 and 2017 respectively.⁶

Today, the demand for American LNG abroad chiefly depends on commercial considerations like pricing and shipping costs as well as seasonal fluctuations of demand; factors like financing opportunities and infrastructure availability also come into play. LNG demand may also be driven by political considerations, particularly in states and regions where gas import diversification is important for energy security. As a matter of fact, politics played a profound role in the early years of the LNG industry. In 1959, the first American LNG exports went to the United States' closest ally, the United Kingdom, and in the 1970s and 1980s, the United States exported to Japan—also a close ally. More recently, commercial and political considerations prompted Northern and Eastern European countries like Lithuania and Poland to

2 BP, *BP Statistical Review of World Energy June 2016*, Pureprint Group, 2016, 20, 22.

3 "How Much Shale Gas Is Produced in the United States?" Frequently Asked Questions, US Energy Information Administration (EIA), June 14, 2016, <http://www.eia.gov/tools/faqs/faq.cfm?id=907&t=8>.

4 EIA, "Annual Energy Outlook 2016 with projections to 2040," August 2016, [http://www.eia.gov/forecasts/aeo/pdf/0383\(2016\).pdf](http://www.eia.gov/forecasts/aeo/pdf/0383(2016).pdf).

5 "International Energy Statistics," EIA; "Shale in the United States," EIA, October 22, 2015, http://www.eia.gov/energy_in_brief/article/shale_in_the_united_states.cfm; *World LNG Report-2015 Edition*, International Gas Union, June 2015, 6, 30, http://www.igu.org/sites/default/files/node-page-field_file/IGU-World%20LNG%20Report-2015%20Edition.pdf.

6 *World LNG Report-2015 Edition*, 6-11; *2016 World LNG Report*, 4, 6-9, 45; Lynn Doan, "Mitsui to Supply Colombia Its First Liquefied Natural Gas Cargo," *Bloomberg*, May 27, 2016, www.bloomberg.com/news/articles/2016-05-27/mitsui-to-supply-colombia-its-first-liquefied-natural-gas-cargo; "Ghana sees first LNG imports landing in early 2017," Reuters, June 6, 2016, af.reuters.com/article/ghanaNews/idAFL8N18Y2PP.

acquire LNG-importing capabilities to diversify away from Russian gas.

The current surge of new gas pipelines and other gas transport and interconnecting infrastructures both in Europe and in Asia serves as yet another example of the significant political and market forces at play. The construction of the Nord Stream pipeline and the controversial plans for Nord Stream II were by and large initiated by Russia due to its political interest in removing Ukraine from its gas transit role in Europe, and its commercial interest of satisfying Western Europe's gas demand. The Turk Stream pipeline and its earlier iterations have been shelved and revived numerous times over the years, because of the tumultuous political relationship between Europe, Russia, and Turkey and the latter's rising gas demand.

At the same time, Russia's abuse of its monopolistic standing in the European gas markets has incentivized the European Union (EU) not only to pursue an antitrust case against Gazprom but also to seek alternative gas supply routes. As a result, the EU embarked on a largely political quest to establish the Southern Gas Corridor in order to bring Caspian gas from Azerbaijan and beyond. Moscow's increasingly aggressive foreign policy in both Ukraine and Syria provided additional impetus for Brussels to seek alternatives to Russian natural resources. Finally, Moscow's politicized use of gas exports in its relationship with Ukraine—one of the main gas transit countries to Europe—galvanized the EU's political ambitions of building a network of gas interconnectors that could potentially buffer Europe from unstable Russian gas flows.

Political forces and market dynamics have also been driving gas infrastructure projects in Asia, Central Asia, and the Caucasus. China's growing demand for energy is increasingly satisfied by gas from Central

Asia, which became possible after new pipelines were built in the late 2000s. These infrastructural projects also weakened Moscow's influence in the region and brought countries like Turkmenistan and China closer together. However, the pace of gas infrastructure development in places like China, India, and Southeast Asia is nowhere near that of Europe or North America.

Another feature of the rapid transformation of the global gas market is that factors like shale, LNG, and the development of new infrastructure have started to alter how gas is priced and contracts are made. US energy company Cheniere's LNG exports are increasing the prevalence of linking gas prices to US Henry Hub levels—based on the United States' best-known natural gas trading hub—and, therefore, traditional gas price indexation to oil is being challenged. Moreover, the abundance of new oil and gas resources in the markets has driven down energy prices, creating more optionality and flexibility for gas importers. Contract “destination clauses,” which forbid wholesalers in an import market from reselling gas outside the countries where they are established and which have been Gazprom's favored tools, are not used by US exporters. In addition, the EU has put regulatory pressure on gas suppliers, including Gazprom, to increase gas flow flexibility by annulling such destination clauses. Likewise spot trading rather than

Another feature of the rapid transformation of the global gas market is that factors like shale, LNG, and the development of new infrastructure have started to alter how gas is priced and contracts are made.

solely relying on long-term contracts for gas supplies is becoming more popular in the global gas markets. These trends challenge traditional relations between exporting and importing states, which are bound to witness a monumental change. New gas deals are likely to spur cooperation between new sets of states, form new alliances, and establish new patterns of trade in regions like Europe, Asia, Latin America, and the Middle East.

The United States in the Geopolitics of Natural Gas

What are the immediate implications of the rapidly changing global gas market for the geopolitics of gas? For one, it means that the role of politics will diminish and that gas markets will have the upper hand in the gas trade. Factors like increased competition and greater market pressure will force new and traditional gas suppliers to abandon the old ways of bringing gas to consumers. As a result, it will become increasingly difficult for monopolists to maintain captive or near-captive markets. Granted, this does not mean that long-term gas supply relationships will suddenly become irrelevant; rather, the increase of diverse producers and gas transport options will pave the way for diversification of supplies and growth of short-term relationships and spot trading. Also, new technology such as floating LNG, compressed natural gas, and other innovations are slowly but steadily challenging the age of costly large-scale gas supply infrastructure. Improved logistical capabilities are another significant development. The enlargement of the Suez Canal in 2015 and the expansion of the Panama Canal in 2016, specifically to accommodate gargantuan LNG tankers like the Q-Max, serve as prime examples. As a result, in the summer of 2016, China was able to receive its first US LNG shipment from Sabine Pass that sailed through the Panama Canal.

This multitude of changes will allow gas-importing states to select their suppliers and forms of gas imports on a much more flexible basis. Imports may include piped gas or LNG, and volumes may be adjusted according to seasonal swings in demand, economic performance, or political calculations. Another key feature of this new globalizing gas market is that it provides greater flexibility for re-exporting unwanted gas volumes. Consequently, this allows for a more efficient way of mitigating various crises and gas shortages across the globe.

The growing interconnectedness and trade in the global gas markets will enhance stability of gas supplies for importing countries and will depoliticize such imports.

In earlier times, when there were fewer gas suppliers and less export and import infrastructure available, liquidity and optionality were almost nonexistent for many importers. Thus, gas relations were long-term arrangements between two states and often had an even more politicized and strategic calculus than that of oil. Nowadays, however, trade dynamics have changed so that importers and exporters no longer interact simply on a bilateral basis, but are subject to the forces of the global natural gas markets. This diversification of supply dynamics has brought unprecedented interconnectedness to regional gas markets, which historically were often stuck in vulnerable and unbalanced dependences vis-à-vis the exporting state.

Factors like increased competition and greater market pressure will force new and traditional gas suppliers to abandon the old ways of bringing gas to consumers.

Still, regardless of the increasingly diffused nature of the supply-demand dynamics, political considerations are unlikely to disappear in the new geopolitics of gas. This is largely because interconnection and liquidity are likely to tilt the power balance from the exporters to the importers, who will now have much greater diversification capabilities to satisfy their demand. Furthermore, in the years to come, the change in the balance of power between gas

exporters and importers will have other implications. For instance, US partners like the EU will have the potential to reduce their dependence on Russian gas and thus be more willing to resort to using energy sanctions vis-à-vis Moscow in conflicts, such as Ukraine. In sum, this dawn of the new geopolitics of gas is likely to alter the importer's standing from a bargaining position of weakness into a position of strength.

Given the vast potential of its LNG exports, the United States is on the verge of becoming an energy superpower. As a result, the question of how the United States will shape the new energy order naturally emerges. The age-old debate in Washington of whether the country should keep its vast energy resources for domestic consumption and thus ensure energy independence or be open to exports seems to



be withering away. However, the debate is far from over. For instance, the White House, Senate, Department of Energy, and the State Department, among other government agencies, have differed in opinion about the ideal approach. There is some likelihood that the change in administration and a rise in energy prices might reignite the debate. If, however, the current policy line is not abandoned, and the United States remains firmly rooted in its support for open markets, it will be well-placed to emerge as a dominant LNG, and perhaps even oil, exporter.

Even though the State Department has noted it will not use American energy exports for coercive purposes, this does not mean that the United States should not pursue gas diplomacy to gain influence globally.⁷ As the world's last superpower, the United States has interests well beyond its borders and, therefore, it has not shied away from demonstrating leadership in even the most remote corners of the planet. Hence, the United States should use its newfound energy prominence to support allies, contain foes, and reign in rivals. From Cuba to Iran to the Soviet Union, and most recently to Russia, the United States has a long and successful history of using sanctions against revisionist powers. Thus, it is more likely than not that

strategic use of these newfound energy resources—in the form of denied or enabled access to them—could become an effective instrument in the foreign policy toolkit that Washington employs. Potential uses of this resource policy could vary from coordinated efforts with allies to enact sanctions against energy exports of hostile powers to creating energy blockades vis-à-vis targeted states or relieving allies, who are cut-off from energy supplies by rival states.

Overall, the recent shale revolution has provided the United States with the power to take a leadership position in the global gas sector and the geopolitics of gas. Given the country's long-standing history in support of open markets, Washington is well positioned to stand tall as the champion of global gas trade and the de-politicization of gas.

EUROPE

The emergence of a new order of gas will possibly have the greatest impact on the European continent and the post-Soviet region. The developments in the European gas markets will be favorable for US interests, because Russia will slowly but steadily lose its strategic chokehold as the dominant natural gas supplier. This will become particularly evident if the EU manages to accomplish all of its planned interconnective gas infrastructure and succeeds in diversifying its natural gas supply routes. The

⁷ John Kerry, "Remarks at the US-EU Energy Council Meeting," Brussels, Belgium, April 2, 2014, <http://www.state.gov/secretary/remarks/2014/04/224287.htm>.

United States has long advocated for European energy diversification and now Europe has become a viable market for US LNG exports. While it is more difficult for US LNG to compete with Russian piped gas in a low-price environment and even if US LNG is not exported in significant volumes to all parts of Europe, the fact that the US can now meet its own gas demand with domestic production rather than imports frees up other sources of gas and puts downward pressure on gas prices for the benefit of European gas importing states. Indeed, the European market will most likely be a spot market for US LNG, while long-term contracts will likely be signed with customers in Asia. Nonetheless, in some European markets like Spain or the United Kingdom, which are further away from Russian pipelines, US LNG is expected to take a significant share of the market. The changing rules of the gas trade in addition to liquidity and low prices may force Gazprom to play by the rules and if they do, it will not matter as much for European security or energy markets even if Europeans continue to buy significant amounts of gas from Russia.

The EU's energy security would also be strengthened if the bloc finally manages to establish an effective energy union, allowing it to negotiate gas deals with one voice. Simultaneously, its policy agenda of prioritizing the use of renewable energy sources and increasing energy efficiency, while cutting its reliance on fossil fuels, will likely mitigate the importance of natural gas on the continent. However, these developments are likely only if the EU manages to sustain its structural integrity and the UK's Brexit remains an isolated case. Aside from that, the EU still is facing a myriad of problems: The Syrian refugee crisis, growing populism and far-right movements, and the difficulties of maintaining a firm policy line vis-à-vis Russia are all likely to add pressure on the unity of the bloc.

In Eastern Europe, countries like Ukraine and Belarus are likely to lose some of their significance as transit countries for Russian gas in the longer term because European access to Caspian gas, reverse gas flows, and LNG imports will reduce their importance to the EU. If Moscow succeeds in building alternative pipelines to Europe, the role of Ukraine in particular will also decrease from the vantage point of Russia. For the US, it is important to realize that, although this development will cost the Ukraine revenue and the country may require additional economic assistance,

in the long term it will reduce Moscow's influence in the region.

RUSSIA

Of all major energy producers, Russia will likely lose the most in this new order of natural gas markets. While this does not necessarily mean it will lose export markets or be forced to reduce its export volumes, it will, however, experience greater competition both in Europe and Asia. This trend is already evident in the post-Soviet region, where, thanks to new pipelines from the Caucasus and Central Asia, countries have been gradually liberating themselves from Moscow's monopolistic grip over their gas markets and infrastructure. Europe's liberalizing efforts have also been one of the main impetuses for Russia's interest in China and other countries in the East as alternative gas consumers. However, given China's colossal market size, diversification strategy, and geopolitical weight, Beijing—not Moscow—will dictate the terms on which any future gas deals will be made including

the forthcoming Power of Siberia pipeline that will bring Russian gas to China. In general, Gazprom will increasingly face more competition from other natural gas exporters, most notably the United States. As a result, it will be forced to refrain from insisting on long-term contracts, oil-linked gas pricing, and destination clauses that for decades have been the staple of its business approach.

Russia's weakening grip on the post-Soviet region in the natural gas markets has other implications than just reducing the likelihood of Moscow using the so called "energy weapon" against energy-poor countries. In particular, corruption, behind-the-scenes political scheming, and vicious cycles of rents in both the post-Soviet region and the EU can be expected to decrease when Russian gas (and accompanying Russian gas interests) lose market share. Given that half of Russia's state budget income is from energy exports, Gazprom will work hard to maintain its current clients and attract new ones. These exports, along with the gas relationships, provide a revanchist Moscow with both influence and power. In such circumstances, the United States should support its allies as they seek to improve their energy security and diversify from Russian gas, while keeping in mind that a dramatic loss of revenues from energy imports would spell instability not only for the Russian economy but also for its political system.

Of all major energy producers, Russia will likely lose the most in this new order of natural gas markets.

ASIA

In the past, the United States' interest in the geopolitics of gas mainly revolved around the relationship between Russia and Europe, however, the globalizing gas market highlights the growing importance of Asia. Europe's tempered demand for gas, the emergence of the United States as an LNG exporter, and Russia's bid to find new customers makes Asia possibly the most important market for gas exports. By 2035, the Asia-Pacific region's share of the world's energy demand is expected to rise to 47 percent, making it two times greater than the second-largest energy-consuming region, comprising Europe, Russia, and the post-Soviet countries, whose share is expected to be 18 percent of global demand.⁸

China's role is particularly important in this equation because the countries that supply it with gas will doubtlessly gain revenues and influence. For the time being, this opportunity is still largely open. Central Asian countries, specifically Turkmenistan, Kazakhstan, and Uzbekistan have been exporting gas to China since the 2000s, and in recent years Russia has sought to build two gas pipelines—the Power of Siberia and the Altai—to deliver its resources. Given the new conditions of the global gas markets and Beijing's preference for diversification of energy imports, there will be more than one or two suppliers to satisfy China's vast appetite for gas. As a result, the United States, with its LNG exporting capabilities, is particularly suited for this task. However, Washington

will be facing considerable competition from countries like Australia, Qatar, and Indonesia, as well as Russian piped gas, though Russian LNG export capabilities are still lagging.

If China succeeds in ramping up its domestic gas production, including its shale gas reserves, Beijing will be an even fiercer negotiator with potential gas suppliers. Beijing's current policy toward shale gas production is linked with its worries of colossal future energy needs, and growing pressures from the public to tackle chronic pollution that has plagued many of the country's cities and regions. To date, China's efforts of recovering unconventional gas resources in the Sichuan Basin have been mostly driven by political considerations—though tremendous investments have resulted in only meager volumes of output. For example, by the end of 2014, Beijing had drilled four hundred wells and invested well over US \$3 billion, yet this led to the production of a mere 1.25 bm^3 of natural gas. In 2015, its shale output reached a total of 4.47 bm^3 , an improvement but still an underwhelming amount.⁹ In general, China's strategy will focus on domestic production and the diversification of energy imports, allowing Beijing to emerge in a position of strength rather than weakness in the negotiations to come. In the event that China eventually manages to experience a similar shale gas boom to that of United States, the global natural gas markets would be bound for further change.

⁸ *BP Energy Outlook 2035: Country and Regional Insights—Asia Pacific*, BP, 2015, http://www.bp.com/content/dam/bp/pdf/energy-economics/energy-outlook-2015/Regional_insights_Asia_Pacific.pdf.

⁹ “New Shale Gas Discovery in South-West China Adds to Already Prolific Fueling Field,” *Shale Gas International*, July 12, 2016, <http://www.shalegas.international/2016/07/12/new-shale-gas-discovery-in-south-west-china-adds-to-already-prolific-fueling-field/>.

Policy Recommendations

The ability of the United States to fully capitalize on the globalizing gas market and the shale revolution both at home and abroad depends on domestic political currents. President Trump and the new Republican-dominated Congress have the capacity to shape the energy and foreign policy priorities of the world's leading gas producer and consumer. They are likely to favor increased natural gas and coal production and reduced environmental and industry regulation. Democrats in Congress will likely continue to prioritize greater regulation of the gas industry, particularly when it comes to fracking, as well as to boost the profile of renewables in the country's energy market. Given the economic and geopolitical benefits of US LNG exports, the new administration should not restrict natural gas exports. It would be wise to leverage the newfound gas resources both for the benefit of the United States and to help shape a new world of gas diplomacy and trade.

The United States, together with its allies, can pursue a number of both short- and long-term strategies to assist the emergence of a truly global gas market. Doing so would not only support the creation of a de-politicized gas industry, but would also directly benefit Washington, Brussels, and others. Though US energy matters are chiefly driven by the markets and private companies, policy makers can also play a role.

More attention should be awarded to pipeline projects that would connect gas-producing regions—like the Bakken Formation in Montana and North Dakota (as well as parts of Canada)—with export infrastructure to market this gas beyond the country's borders. In addition, the government could focus on placing a lid on both environmentally and economically harmful practices, like gas flaring, by providing incentives for companies to build additional infrastructure that would gather, process, and transport excessive gas volumes to consumers or export terminals.

The success of LNG exports and their terminals also depends on the continued timely permitting and licensing by the Department of Energy, Federal

Regulatory Energy Commission (FERC), the US Maritime Administration, and the Coast Guard. At this point there is little more that Congress and the government can do to improve such regulation. Even reducing permitting time to thirty days would, in the greater scheme of things, have little impact. Thus, the most important policy recommendation is for the new administration to maintain a steady course, which would allow the country to capitalize on its shale gas revolution and consolidate the country's standing as the leader in global gas markets.

Since free trade agreements (FTAs) like the Trans-Pacific Partnership (TPP) with the Pacific Rim countries and the Transatlantic Trade Investment Partnership (TTIP) with the EU are unlikely to find much support within the new Trump administration, it is worthwhile for policy planners to consider what other agreements or arrangements could be made to bolster US energy exports well beyond the twenty countries that currently have signed FTAs with Washington.

Another agenda item for the new administration should be to broaden Washington's energy cooperation with its allies. In recent years, Washington and other allied capitals have observed NATO's increased focus on energy security. Although NATO has yet to formulate a coherent strategic-level approach to energy, it already plays a role on the operational level by analyzing how potential disruption of energy supplies could affect both societal functions and NATO missions. These tasks are among the primary objectives of the NATO Energy Security Centre of Excellence in Vilnius, Lithuania, which opened in 2012. Although the center needs to broaden the scope of its activities to include issues like Europe's energy security, it has the potential to become a hub where policy makers and technical experts can come up with new and innovative ways of tackling cutting-edge energy security issues. Given that the United States is by far the greatest energy producer in NATO, it should be on the vanguard of formulating the Alliance's energy agenda. Also, both

President Trump and the new Republican-dominated Congress have the capacity to shape the energy and foreign policy priorities of the world's leading gas producer and consumer.

the United States and Norway are the linchpins of NATO's energy security as they have the capacity to provide alternative supplies in case hostile powers cut-off gas deliveries to Alliance members.

US leadership and greater NATO cooperation are also needed because Moscow employs an active "divide and rule" stratagem when planning its new pipelines. NATO member Turkey, for example, despite the diplomatic spat that followed the downing of the Russian fighter jet in 2015, has been the prime target. Turkey will play an increasingly significant role in Europe's energy security and stability in the Middle East, as a result, no matter how its energy deals with Russia turn out, cooperation between Washington and Ankara will remain of the utmost importance. Although Turkey does not currently permit the shipment of LNG through the Bosphorus strait, due to concerns over safety and shipping lane congestion, this remains the only way American and other LNG shipments could potentially reach the shores of Ukraine and other countries in the Black Sea region.

Another way the United States could support energy-vulnerable states in Europe, Asia, and beyond is by sharing its know-how or financing feasibility studies for pipeline infrastructure, gas storage caverns, and LNG terminals. For example, Washington funded the initial feasibility study for Lithuania's new LNG terminal in

Klaipėda. Furthermore, relevant government agencies and the gas industry could support allies keen on developing their own domestic natural gas resources by either sharing experiences, selling technologies, or, in the case of private companies, providing investment.

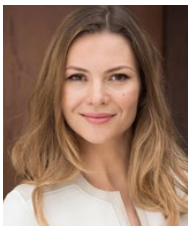
Still, it is important to note that Washington is not omnipotent and there are clear limits to the tools at its disposal. Unlike the EU, which has the capacity to fund hard assets and has great sway over energy companies within its borders, the United States government lacks these structural instruments. As a result, both Brussels and Washington could achieve the greatest results by strengthening transatlantic cooperation. Thanks to its Third Energy Directive, the EU has the capacity to provide funding not only for electricity distribution networks and pipeline interconnectors, but also for LNG import facilities. Although the EU has already made considerable progress in this direction, it still has a lot more to accomplish. However, given the fragmented nature of the decision-making apparatus in Brussels, which prevents it from speaking with a single voice, the United States has to pick up the mantle of leadership. It is up to Washington to forge a long-term strategic vision, capitalize on the opportunities afforded by its new position in the natural gas markets, and reduce the risks for itself and its allies in this new era of geopolitics of gas.

Conclusion

The recent transformative developments in the United States gas sector and the global gas markets warrant a reassessment of the role natural gas can play in the Trump administration's energy policy and international diplomacy. While the country has emerged as the greatest producer of natural gas and is on track to becoming a significant LNG exporter, which has positive implications for the United States and its allies, a number of opportunities and potential risks merit the administration's attention. The United States needs to cement its position as a leading player in the global gas

markets and promote open, secure, and de-politicized flows of natural gas. The incoming administration should also embrace its newfound energy prowess to forge a distinct gas diplomacy strategy to support its allies, contain its foes, and engage its potential rivals. This approach would leverage economic and political gains for the nation and help mitigate the inevitable risks and changes that will emerge in the energy markets and the international political system during the term of the new administration and beyond.

About the Author



Dr. Agnia Grigas is a Nonresident Senior Fellow with the Atlantic Council's Dinu Patriciu Eurasia Center. She speaks and publishes on energy; security; and foreign policy regarding the United States, Europe, the post-Soviet space, Russia, and the Baltic states.

She is the author of three books: *The New Geopolitics of Natural Gas* (Harvard UP, forthcoming 2017), *Beyond Crimea: The New Russian Empire* (Yale UP, 2016) and *The Politics of Energy and Memory Between the Baltic States and Russia* (Ashgate, 2013).

In the private sector, Dr. Grigas has more than a decade of experience as an adviser to corporations and government institutions. Her clients have included the likes of Barclays Bank, where she led its international growth initiatives including opening a global strategic engineering center in Lithuania. Previously, she worked as an Associate with leading global consultancy Eurasia Group, where she advised on emerging markets for its multinational clients. She began her career as a Financial Analyst at JP Morgan, where she worked on Eurobond issuance for corporations and governments.

Dr. Grigas also served as adviser on energy security and the economy for the Lithuanian Minister of Foreign Affairs (2008-2009), focusing on regional gas diversification solutions and foreign direct investment.

She has held various fellowships including the Truman National Security Fellowship (2015-2016), and since 2014 she has been a Nonresident Senior Fellow at the McKinnon Center for Global Affairs at Occidental College. She collaborates with prominent American and European research institutions and has published studies for the Oxford Institute for Energy Studies, The Royal Institute of International Affairs (Chatham House), and Notre Europe Jacques Delors Institute, among others.

An experienced communicator on screen, in print, and in person, she is an official contributor to *The Hill* and a frequent media commentator in outlets including CNN, *Forbes*, *Newsweek*, *Bloomberg*, and *Reuters*.

Dr. Grigas earned her master's and doctorate in international relations from the University of Oxford and graduated cum laude with a BA in politics and economics from Columbia University. She resides in Washington, DC.

Atlantic Council Board of Directors

CHAIRMAN

*Jon M. Huntsman, Jr.

CHAIRMAN EMERITUS, INTERNATIONAL ADVISORY BOARD

Brent Scowcroft

PRESIDENT AND CEO

*Frederick Kempe

EXECUTIVE VICE CHAIRS

*Adrienne Arsht

*Stephen J. Hadley

VICE CHAIRS

*Robert J. Abernethy

*Richard Edelman

*C. Boyden Gray

*George Lund

*Virginia A. Mulberger

*W. DeVier Pierson

*John Studzinski

TREASURER

*Brian C. McK. Henderson

SECRETARY

*Walter B. Slocombe

DIRECTORS

Stéphane Abrial

Odeh Aburdene

*Peter Ackerman

Timothy D. Adams

Bertrand-Marc Allen

John R. Allen

*Michael Andersson

Michael S. Ansari

Richard L. Armitage

David D. Aufhauser

Elizabeth F. Bagley

Peter Bass

*Rafic A. Bizri

Dennis C. Blair

*Thomas L. Blair

Philip M. Breedlove

Reuben E. Brigety II

Myron Brilliant

*Esther Brimmer

R. Nicholas Burns

*Richard R. Burt

Michael Calvey

John E. Chapoton

Ahmed Charai

Sandra Charles

Melanie Chen

George Chopivsky

Wesley K. Clark

David W. Craig

*Ralph D. Crosby, Jr.

Nelson W. Cunningham

Ivo H. Daalder

Ankit N. Desai

*Paula J. Dobriansky

Christopher J. Dodd

Conrado Dornier

Thomas J. Egan, Jr.

*Stuart E. Eizenstat

Thomas R. Eldridge

Julie Finley

Lawrence P. Fisher, II

*Alan H. Fleischmann

*Ronald M. Freeman

Laurie S. Fulton

Courtney Geduldig

*Robert S. Gelbard

Thomas H. Glocer

Sherri W. Goodman

Mikael Hagström

Ian Hague

Amir A. Handjani

John D. Harris, II

Frank Haun

Michael V. Hayden

Annette Heuser

Ed Holland

*Karl V. Hopkins

Robert D. Hormats

Miroslav Hornak

*Mary L. Howell

Wolfgang F. Ischinger

Reuben Jeffery, III

Joia M. Johnson

*James L. Jones, Jr.

Lawrence S. Kanarek

Stephen R. Kappes

*Maria Pica Karp

Sean Kevelighan

*Zalmay M. Khalilzad

Robert M. Kimmitt

Henry A. Kissinger

Franklin D. Kramer

Richard L. Lawson

*Jan M. Lodal

*Jane Holl Lute

William J. Lynn

Izzat Majeed

Wendy W. Makins

Zaza Mamulaishvili

Mian M. Mansha

Gerardo Mato

William E. Mayer

T. Allan McArtor

John M. McHugh

Eric D.K. Melby

Franklin C. Miller

James N. Miller

Judith A. Miller

*Alexander V. Mirtchev

Susan Molinari

Michael J. Morell

Georgette Mosbacher

Thomas R. Nides

Franco Nuschese

Joseph S. Nye

Hilda Ochoa-Brillembourg

Sean C. O'Keefe

Ahmet M. Oren

*Ana I. Palacio

Carlos Pascual

Alan Pellegrini

David H. Petraeus

Thomas R. Pickering

Daniel B. Poneman

Daniel M. Price

Arnold L. Punaro

Robert Rangel

Thomas J. Ridge

Charles O. Rossotti

Robert O. Rowland

Harry Sachinis

Brent Scowcroft

Rajiv Shah

Stephen Shapiro

James G. Stavridis

Richard J.A. Steele

Paula Stern

Robert J. Stevens

John S. Tanner

*Ellen O. Tauscher

Nathan D. Tibbits

Frances M. Townsend

Clyde C. Tuggle

Paul Twomey

Melanne Verveer

Enzo Viscusi

Charles F. Wald

Michael F. Walsh

Mark R. Warner

Maciej Witucki

Neal S. Wolin

Mary C. Yates

Dov S. Zakheim

HONORARY DIRECTORS

David C. Acheson

Madeleine K. Albright

James A. Baker, III

Harold Brown

Frank C. Carlucci, III

Robert M. Gates

Michael G. Mullen

Leon E. Panetta

William J. Perry

Colin L. Powell

Condoleezza Rice

Edward L. Rowny

George P. Shultz

Horst Teltschik

John W. Warner

William H. Webster

*Executive Committee Members

List as of January 10, 2017



The Atlantic Council is a nonpartisan organization that promotes constructive US leadership and engagement in international affairs based on the central role of the Atlantic community in meeting today's global challenges.

© 2017 The Atlantic Council of the United States. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means without permission in writing from the Atlantic Council, except in the case of brief quotations in news articles, critical articles, or reviews. Please direct inquiries to:

Atlantic Council

1030 15th Street, NW, 12th Floor,
Washington, DC 20005

(202) 463-7226, www.AtlanticCouncil.org