

# HEAVY FUEL

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Gal Luft

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By any yardstick, Russia is an energy superpower. The country has the world's largest conventional reserves of natural gas (23.7 percent of the world's total) and the seventh-largest proven oil reserves. It also has gigantic coal reserves, second only to those of the United States. Large unexplored areas in Eastern Siberia and the Arctic would no doubt add a great deal of hydrocarbons to Russia's reserve base. Russia's production level is in accordance with its reserves; in 2009, Russia accounted for 17 percent of the world's gas production and 13 percent of its oil output, surpassing even Saudi Arabia.<sup>1</sup> With a declining population and sluggish economic growth, oil and gas revenues are an important part of Russia's economy.

But for the Kremlin, energy is far more than simply a source of income. In fact, hydrocarbon revenues make up only 17 percent of Russia's GDP, and that figure is projected to fall to 13 percent by 2020.<sup>2</sup> Rather, for Russia, energy is first and foremost an instrument of foreign policy. In recent years, Russia has showed no compunction about using its energy resources as a tool of coercion and intimidation against its central and east European neighbors, including Belarus, Poland, the Czech Republic, Georgia and, most notably, Ukraine. Russia has done its utmost to maintain its dominance over Europe's energy markets, controlling existing energy corridors and downstream facilities while disrupting European efforts to construct alternative supply routes through divide-and-conquer tactics.



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Russia's energy shenanigans have become a source of anxiety in Europe, and in their effort to weaken Moscow's grip some European countries have tried to convince successive U.S. administrations that Europe's strategic dependence on Russia threatens U.S. vital interests. In response, they argue, the United States should throw its weight behind pipeline projects aimed at circumventing Russia's territory. Over time, these efforts have created a near-consensus in Washington that America has a vested interest in Europe's energy security, and that Europe and the United States should work together to mitigate the adverse effects of Europe's energy dependency on Russia. Some experts have proposed that the United States work with European governments to apply anti-monopoly legislation to Russian government-owned companies if Moscow continues to deny upstream access to Western companies.<sup>3</sup> Others have gone even further, calling on NATO to invoke its mutual defense clause against Russia in the event of an energy supply cutoff.<sup>4</sup>

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Yet, while Russia is certainly a challenge for Europe's energy security, Moscow's energy strategy is not necessarily entirely detrimental to U.S. vital interests. Europe's dependence on Russian gas is largely self-

inflicted, and can therefore resolve itself through different choices in the EU's energy policy. The strong Trans-Atlantic relations between Europe and the United States should not dictate blind American support for the EU's energy security interests. Neither should they mask the benefits and opportunities that some of the components of Russia's strategy hold for Washington.

### **The method to Moscow's madness**

Contrary to popular belief, Russia is much more of an oil exporter than a gas exporter. In 2009, Russia produced 10 million barrels per day (mbd) of oil, while consuming only 2.7mbd. This means that 73 percent of its crude production was exported or processed into petroleum products, half of which were sent abroad.<sup>5</sup> By contrast, when it comes to gas, most of Russia's production remains at home. In 2009, Russia consumed 390 billion cubic meters (bcm) of the 475 bcm it produced, leaving only 12 percent of total production for exports.<sup>6</sup> To free more natural gas for exports, Russia aspires to buy gas from its neighbors and has implemented since 2006 a new energy strategy to augment domestic power generation with coal.<sup>7</sup>

Despite all that, Russia's geopolitical power is derived much more from exporting gas than oil. The reason so much attention is paid to gas is that it is far less fungible a commodity than oil. Oil can be exported via tankers all over the world and suppliers can be shifted at will, so that no one supplier can hold too much power over any given consumer. The gas trade, on the other hand, is tied to long-term contracts and expensive pipeline infrastructure or the availability of liquefied natural gas (LNG) terminals. Once a consumer enters

a long-term contract with a supplier and billions of dollars are invested in infrastructure, the relations become almost unbreakable. And while oil prices are determined in the global market, gas prices are decided in direct negotiations between producers and consumers, allowing exporters to strong-arm their clients.

Another reason why, in Europe, gas is perceived as more of a problem than oil is that gas contributes to Europe's electricity supply, while oil doesn't. Only two percent of OECD-Europe's electricity is generated from oil. Western Europe's aversion to nuclear power on the one hand—France and Sweden being notable exceptions—and its reluctance to expand coal-fired generation due to concerns about global warming on the other have caused the EU to increase the share of natural gas for power generation in its fuel mix significantly: from nine percent in 1990 to roughly 20 percent today. (A few exceptions, like Belarus and Moldova, are 100 percent dependent.) Due to Europe's insufficient domestic gas supply, today about half of EU gas is imported either by pipelines or as LNG. This figure is projected to grow to more than 70 percent by 2030.<sup>8</sup>

Of all the countries that supply gas to the EU, Russia stands the tallest, supplying roughly one-third of EU imports. Some EU members, like Finland and Estonia, are 100 percent reliant on Russia for their gas imports, while others—like Germany, Poland and Italy—are dependent on Russia for between a third and full half of their imports.

In turn, Europe's dependence on Russian gas is the strongest geopolitical card the Kremlin owns. Gas exports allow Russia to retain some of the prestige and sway it has lost since the demise of the Soviet Union. It is a

card that Moscow cannot be expected to relinquish easily. Indeed, Russia is doing all it can to strengthen its stranglehold over Europe's energy market.

At the core of Russia's energy strategy is the effort to lock in supply by controlling the transnational pipeline infrastructure. Throughout the 1990s, Moscow opposed the Baku-Tbilisi-Ceyhan (BTC) pipeline which today allows Caspian oil to flow to the southeastern Mediterranean coast of Turkey, as well the Odessa-Brody oil pipeline designed to bypass Russia, connecting the Black Sea to European consumers. Russia is also opposed to (and works to undermine) the Nabucco project, which aims to bring Caspian gas to the heart of Europe from Turkey via Bulgaria, Romania and Hungary. It also opposes other proposals for a "southern corridor," as well as the idea of the Trans-Caspian gas pipeline that would run under the Caspian Sea from Turkmenistan's Caspian coast to the Sangachal Terminal in Azerbaijan, where it would connect with the existing pipeline to Erzurum in Turkey (which in turn could be connected to Nabucco).

Instead, Russia works to promote projects that aim to maintain its hegemony over gas supply to Europe. Among them are the Nord Stream Pipeline which is planned to supply Germany by crossing the Baltic Sea, bypassing Ukraine, Belarus and Poland and the already-operational Blue Stream Pipeline stretching from Russia's North Caucasus coast to Turkey. But Russia's flagship project, and Nabucco's main rival, is the planned South Stream Pipeline running from Russian territory across the Black Sea to Bulgaria, bypassing both Ukraine and Turkey, and from there to northern Italy.

Russia also recognizes the importance of the former Soviet Cen-

tral Asian republics as key energy exporters, and works to ensure that Central Asian producers—especially Kazakhstan, Turkmenistan and Uzbekistan—do not develop independent energy relations with the European market. To limit Eurasia's direct exposure to Europe, to attain a stronger position in price negotiations with the West and to retain more of its own gas for future generations, Russia seeks to acquire a significant portion of Central Asia's exported gas. Hence, Moscow supports the idea of connecting the Caspian Sea to the Black Sea, either by expanding the existing Volga-Don Canal or through a project called the Eurasia Canal, a canal four times longer than the Suez Canal that would traverse the Russian regions of Dagestan, Kalmykia, Stavropol and Rostov. The latter project could have far-reaching geopolitical ramifications. It would allow landlocked countries in the Caspian region, like Kazakhstan, Turkmenistan and Azerbaijan, to become maritime powers while ensuring that Russia is the prime conduit for their energy exports. It would also contribute to the economic development of Russia's southern regions and the Caucasus. Perhaps most important, it would open the door for expanded transit of cargo from China into the Black Sea and from there to Europe.

Which brings us to China. Russia has long been concerned with security of demand emanating from Europe. Moscow is aware of Europe's attempts to not only reduce its dependence on Russia's hydrocarbons specifically but also dependence on fossil fuels in general, due to global warming considerations. Even within the gas sector, Russian gas faces new challenges not only from LNG and gas piped from North Africa (and potentially from Nigeria, if the Nige-

ria-Algeria Trans-Saharan Pipeline is constructed) but also from recently-developed technologies to extract unconventional gas from shale, a resource with which Europe is well-endowed. If shale truly becomes the game changer many believe it to be, this would have long-term implications for European gas markets and energy security. The emergence of this new resource would allow transition toward new pricing structures and could create disincentives for investment in the infrastructure projects that Russia is promoting.

The Chinese market, on the other hand, promises impressive growth and multiple new opportunities. China is already the world's largest auto market and its oil imports are projected to double by 2030. Only eight percent of China's electricity is generated from natural gas, compared to eighty percent from coal. China has recently become a net coal importer and has recognized the health and environmental costs of high levels of coal consumption. Its energy strategy prescribes a gradual shift to nuclear power, renewables and natural gas. All this ensures stronger energy relations with its giant northern neighbor. Hence, in 2014, Russia and China are slated to complete the 3,000-mile East Siberian-Pacific Ocean (ESPO) pipeline, which could transport Russian crude from Siberia not only to Daqing, a major oil production base in northeastern China, but also to other Asian destinations—and potentially to the U.S. market as well. Moscow and Beijing are also in discussions about plans to supply Russian gas to China. In total, according to Russia's energy strategy, by 2030 Asian markets, led by China, are expected to boost their share of Russian gas exports to twenty percent from practically zero in 2008.<sup>9</sup>

## **The U.S. response**

Since the 1990s, Washington's position toward the Russian-European energy dilemma has been highly sympathetic to the Europeans, particularly as it pertains to its new Central and East European allies. Considering the fact that the European Commission and many Western European governments have shied away from ruffling Russia's feathers by being overly supportive of the energy concerns of Central and East European states, one could argue that the United States has been more European than the Europeans in its response to Russia's aforementioned energy strategy. The United States was a staunch supporter of the BTC pipeline from the time it was first proposed by Turkey in 1992 until its completion in 2005. This position was based on the assumption that U.S. interests would be well-served if the Central Asian states achieved a greater degree of economic and political independence from post-Communist Russia. A similar rationale has spurred the United States to support two projects currently being erected to bypass Russia, the Odessa-Brody oil pipeline and the Nabucco gas pipeline.

Even if there was a unified European position on these projects, it does not mean there is a complete overlap between European and U.S. interests. Nor does it dictate that Washington is compelled to side with Europe in curbing Russian control over Europe's energy market. U.S. interests are wider and more global than those of Europe, and one should consider how taking Europe's side—and no doubt upsetting Moscow in the process—would impact America's overall economic and geopolitical interests.

## **The devil we know**

Washington should ponder the following question: if Europe were to reduce its dependence on Russia, who would fill the gap? When it comes to gas, Central Asian and North African exporters could certainly play a growing role in displacing Russia's energy, but only one country has the magnitude of gas reserves that can be piped to Europe and fill Russia's shoes. That country is Iran, home to the world's second-largest reserves of natural gas. Iran's geographical location allows it to connect to almost any pipeline project originating in Central Asia, Turkey or the Persian Gulf. Internationally isolated, Iran has a strategic interest in making Europe dependent on its gas. Such dependency would provide diplomatic immunity for the clerical regime in Tehran.

Iran is already promoting the Persian Pipeline project to bring gas from its South Pars field to the heart of Europe through Turkey and onward to Greece and Italy. If constructed, this pipeline is expected to deliver 20.4 bcm per year. Obviously, the United States would oppose such a project, which would give Iran access to the European market. And under the current international sanctions regime, it is highly unlikely that the Islamic Republic could secure the funds to build it. A more realistic outlet for Iran's gas, therefore, is Nabucco. U.S. support for the project comes with the caveat that no Iranian gas should supply the pipeline. But in reality, once Nabucco is constructed, it will be only a matter of time before Iranian gas becomes a sought-after commodity.

Another issue regarding Nabucco that Washington should consider is the role of Turkmenistan. European proponents of the project have courted Turkmenistan, Central Asia's biggest reserve holder, as a potential supplier



for the pipeline. This has provoked feverish Russian diplomacy to keep Moscow's grip over Turkmen gas intact. But despite Russia's opposition, in November 2010 Turkmenistan offered to deliver 40 bcm of gas annually to Europe through Nabucco, putting wind into the sails of the project. Turkmenistan has also endorsed the Trans-Caspian Pipeline, which would connect its gas to Nabucco.

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On its face, therefore, it seems that Ashgabat's announcement puts to rest concerns among Nabucco skeptics that there would not be sufficient gas to fill the pipeline. But while American cheerleaders of Nabucco applauded Ashgabat's move, directing Turkmenistan's gas to Europe does not necessarily serve U.S. interests. Washington would be better served if that gas was instead directed south to the 1,000-mile Turkmenistan-Afghanistan-Pakistan-India Pipeline (TAPI), which would extend from the Dauletabad gas field in Turkmenistan along the highway through Herat, Helmand and Kandahar in Afghanistan, to Quetta and Multan in Pakistan, and on to the Indian border town of Fazlika. If built, TAPI would contribute to the economies of all four countries, and particularly to the Afghan economy, which the United

States is desperately trying to boost. TAPI's most important attribute is that it would essentially block Iran's effort to connect its gas fields to the Indian market.

For the same reason, Iran wishes to supply Europe it also eyes the vast Indian market and hopes to make hundreds of millions of energy-poor Indians dependent on its gas. For years, Iran has been pushing for a pipeline that would connect Iran, Pakistan and India (the IPI Pipeline), and in March 2010 Iran and Pakistan signed a historic deal to begin construction of the route. Both Pakistan and Iran, each for its own reasons, would like the pipeline to extend to India. For now, however, India is unwilling to extend the pipeline into its territory. But with 400 million Indians currently lacking access to basic electricity, and an economy growing at ten percent per year, the temptation of joining the project is likely to be too difficult to resist indefinitely.

During the years of the Bush administration, the United States brought heavy pressure on New Delhi and Islamabad to spurn the IPI pipeline project. But by supporting Nabucco and by giving a nod to Turkmenistan to divert its gas to Europe, the United States not only compromises its relations with Russia but also facilitates the creation of not one but two new economic lifelines for Iran: one to Europe and the other to South Asia. This is inconsistent with Washington's declared foreign policy of improving relations with Moscow while isolating Tehran. Alternatively, by joining forces with Russia, which has expressed its interest in financing TAPI,<sup>10</sup> the United States can help shape the geopolitics of energy in South Asia in a way that helps economic development of its allies in the region while undermining Iran.

### **Feeding our habit**

Additionally, before doing Europe's bidding by embarking on policies that undermine Russia's interests, Washington should consider what Russia could mean for its own energy security. If one looks at the geopolitics of energy, there are reasons to believe that the United States is likely to be more reliant on Russian hydrocarbons, particularly oil, than it is today. Other than Canada, America's top oil suppliers are all facing great uncertainties. Oil production in Mexico, America's second-largest supplier, is in steep decline and within a few years the country could cease exporting oil. The third, Nigeria, is struggling with division, political violence, and an inhospitable investment climate, and its production is in decline. Down the list, Saudi Arabia, with its ailing monarchs and a rising Iranian rival, is facing political uncertainty; Venezuela's oil industry is bruised from abuse and mishandling by its president, Hugo Chávez, and the country's production is likewise in decline. Compared to all of those suppliers, Russia seems like a paragon of stability.

Despite the fact that the United States and Russia are respectively the world's number one oil importer and exporter, for most of the years since the Second World War geography has set them apart when it comes to energy trade. This is now changing rapidly. Until 1994, U.S. crude imports from Russia stood at zero. Today, Russia is already America's 6th-largest supplier of crude and petroleum products, shipping to the United States, depending on the month, between 500,000 and 800,000 barrels per day. As the world's politics change, so does its geography. The opening of the northern sea route will allow for growing imports of Russian oil across

the Arctic Ocean to Alaska and on to the contiguous 48 states. If the United States is to tighten its energy relations with Russia, Washington should consider carefully to what end and to what degree it is willing to upset Russia's energy interests in Europe at a time when its own reliance on Russian energy is growing.

### **Scramble for the Arctic**

In pondering its approach toward Russia, Washington should also keep its eyes on the 21st century's big prize: the energy potential of the Arctic. According to U.S. government figures, the Arctic holds as much as 90bn barrels of undiscovered oil, and has as much undiscovered gas as all the reserves known to exist in Russia.<sup>11</sup> The Arctic, however, should be viewed not only as an energy-rich region but also as a new conduit for U.S.-Russia trade relations. The melting ice permits navigation several months a year not only along the Northern Sea Route but also along the northern coasts of North America (the Northwest Passage).

Russia fully recognizes the strategic importance of the region. Several milestone events demonstrate that, for Moscow, the scramble for the Arctic has already begun. In 2007, in a symbolic move, a Russian submarine planted a flag on the Arctic seabed more than two-and-a-half miles beneath the North Pole. In May 2008, Russia announced plans to build eight floating nuclear power stations to supply energy for Arctic oil and gas operations. Then, in September 2010, the first commercial supertanker sailed from Murmansk in Russia to Ningbo in China through the forbidding waters of Russia's Arctic passage. The new navigation route would cut by half the traditional route, which passes through the Suez Canal.

The future of the Arctic is uncertain. This is mostly because the Arctic powers—Canada, the United States, Russia and the Nordic countries of Norway and Denmark—have not finalized their strategic concepts regarding the region. The UN Law of the Sea Convention (UNCLOS), to which all countries involved but the United States are parties, determines that countries can lay claim to their Exclusive Economic Zone (EEZ) of 200 miles from their continental shelves. But Russia's continental shelf is still not delineated, as it is not yet clear how far its landmass reaches. As the Arctic region becomes less forbidding, several countries have made moves to claim or reinforce pre-existing claims to the waters or seabed of the Arctic, and the United States and the Nordic countries will likely soon find themselves in an increasingly assertive race against Russia to exploit the Arctic's energy bonanza.

Despite the significant geopolitical and geo-economic interests the United States has in the Arctic, Washington has treated the region with insufficient resources and even less policy attention. Russia, meanwhile, is pursuing a path of aggressiveness and unilateralism. The number of icebreakers essential for safe navigation in the Arctic is one measure of American neglect of the region. The United States has only two, compared to Russia's fleet of twenty-nine, seven of which are nuclear. Neglecting the Arctic could be a costly mistake. The time to address the issue is now, when the global energy markets are well supplied, rather than later, when the cost of energy is higher and resources are scarcer.

### **Rethinking the equation**

None of the above means that the United States cannot be helpful

in strengthening Europe's energy security in ways that do not openly challenge Russia's interests or that empower America's enemies. For example: the United States could help Europe alleviate the need for Russian gas imports through LNG exports to European terminals and by cooperating with European governments in the commercialization of shale gas recovery technologies. Shale gas is already transforming the energy scene in North America; with some regulatory changes and investments it can do the same in Europe.

The United States should also realize that Europe's predicament is to a large extent self-inflicted, stemming from Europe's fixation with climate change coupled with its traditional anti-nuclear posture. Europe has today 163 nuclear power plants in operation. But many of those are aging, and new plants are not on the horizon. Of the 86 nuclear reactors that will be put into operation worldwide by 2017, only eight will be in Europe (Ukraine, Bulgaria, France, Finland and Slovakia).<sup>12</sup> Countries like Germany, Belgium, Poland, Austria, Italy and Hungary, all under the Russian boot, have neglected their nuclear sector. The UK, for example, has 19 reactors generating about 18 percent of its electricity, and all but one of these will be retired by 2023. Yet nuclear power has proven itself as a clean and safe source of electricity. If the environmentally conscientious EU wishes to be less dependent on imported Russian gas, nuclear power is the only realistic recourse. As the world's largest producer of nuclear power, accounting for more than 30 percent of worldwide nuclear generation of electricity, the United States can collaborate with Europe in the development of new nuclear fuel cycles and in other policies that



pave the way for significant growth in nuclear capacity on the Continent.

For the United States, Russia's energy strategy is a mixed bag. On the one hand, it is characterized by heavy-handedness, coercion, unilateralism and anti-competitive behavior, all of which are abhorred by the United States and should not be condoned by any administration. On the other hand, some elements of Russia's conduct, unsavory as they may be, actually serve U.S. interests. In more than one way, Russia's energy strategy keeps Iran from extending its tentacles into major energy markets—and hence helps contain Iran's role as a growing power. Russia's growing role in Asia's energy markets also serves U.S. interests insofar as it helps reduce China's dependence on the increasingly-unstable Middle East, thereby reducing the risk of future U.S.-China conflict over access to the Persian Gulf. Russia is also the most important non-OPEC oil exporter, and as such it could serve as a counterweight to the oil cartel which the United States aims to weaken.

Unfortunately, current U.S. policy toward Russia fails to recognize all of those potential benefits. Instead, the United States adheres to Cold War – era policies aimed at undercutting and alienating Russia rather than focusing on areas where the two powers can collaborate. The United States must be realistic about its ability to influence energy policies in Europe, Russia, and Central Asia. As Ambassador Keith Smith observed: “The speed and agility on the part of Russia's planners make it difficult or even impossible for the U.S. to mobilize sufficient European opposition to Moscow's maneuvers, particularly when faced with EU lethargy.”<sup>13</sup>

Under such conditions, for the United States to erode its relations with Russia would be anything but smart. For decades, America has fought Europe's

wars; the battle for Europe's energy security should not be one of them.



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