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UNITED STATES SENATE,
COMMITTEE ON FOREIGN RELATIONS,
Washington, DC, December 12, 2012.

DEAR COLLEAGUES: For years, I have pressed for greater U.S. diplomatic engagement to realize the immense strategic and economic benefits of opening an oil and natural gas Southern Corridor from Central Asia and the Caucasus to European and global energy markets. I asked my Foreign Relations Committee professional staff members, Neil Brown and Marik String, to travel to Azerbaijan, Turkey, and Turkmenistan to assess progress on the next installment of the Southern Corridor to bring Caspian basin natural gas to Europe. This strategic U.S. initiative would advance U.S. interests by alleviating Russian gas-fueled pressure against NATO allies, bolstering bilateral relations in the Caspian Sea region, and further isolating Iran.

After years of infighting between energy companies involved in the project, the Southern Corridor for gas to Europe appears within reach. This result likely would not have occurred absent U.S. energy diplomacy over the last decade. Revitalized U.S. leadership is needed to fully realize strategic benefits for the United States.

This SFRC Minority Staff report provides background analysis and recommendations that will advance U.S. national security and economic interests. I would highlight three recommendations for Congressional consideration. First, the State Department should restore the dedicated, high-level position of U.S. Envoy for Eurasian Energy Security to ensure that U.S. interests are advanced at the highest levels of government in the Caspian region where energy decisions are made. Indications that the Envoy position will be subsumed, as opposed to better coordinated, within the State Department's new Energy Bureau threaten to undermine confidence in U.S. resolve regarding energy security and our broader commitment to the region.

Second, the United States must make clear that our strategic interest lies in Caspian gas reaching our NATO allies in Turkey, Central and Southeastern Europe, and beyond, who are in acute need of energy diversification due to vulnerability to Russian energy cutoffs. If the gas instead arrives at destinations in Western Europe with multiple supply options, Congress should reexamine the merits of a statutory exemption from Iran-related financial sanctions for the further development of Azerbaijan's Shah Deniz gas field, the source for initial stages of the gas corridor.

Finally, Congress should swiftly pass the Liquefied Natural Gas (LNG) for NATO Act. My legislation would place NATO allies on equal footing with free trade partners under U.S. law in providing for automatic licenses for U.S. LNG exports. Unlike in past years, U.S. domestic shale natural gas production affords us the opportunity to directly alleviate the dependency of our NATO allies in the Baltics, Central and Southeastern Europe, and Turkey on Russian supplies, and further isolate Iran, while benefiting the U.S. economy by opening new markets.

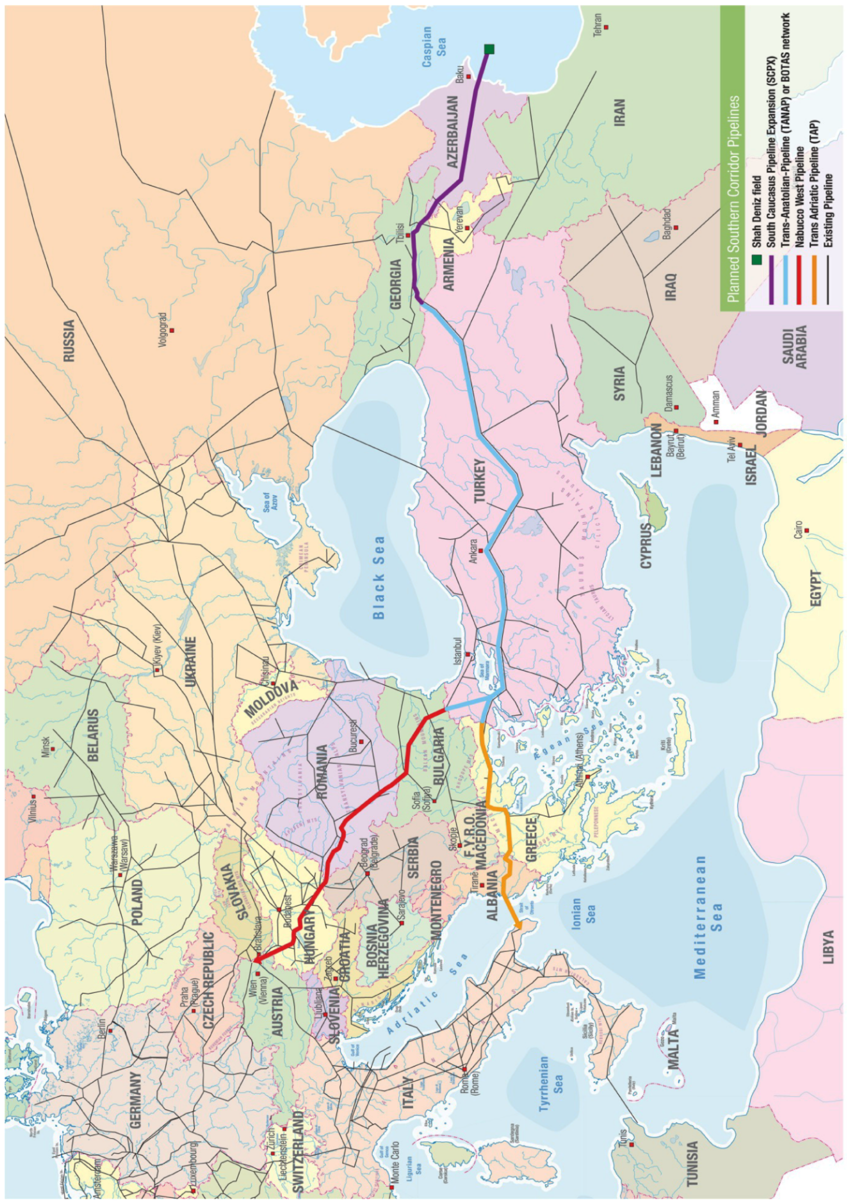
This staff report provides further background on the Southern Corridor. I welcome any comments you may have.

Sincerely,

RICHARD G. LUGAR,
Ranking Member.

MAPS

EXISTING AND PROPOSED NATURAL GAS INFRASTRUCTURE IN THE CASPIAN REGION



THE SOUTHERN CORRIDOR FOR NATURAL GAS

ENERGY AND SECURITY FROM THE CASPIAN TO EUROPE

As Chairman and Ranking Member of the Senate Foreign Relations Committee, Senator Richard G. Lugar has prioritized energy diplomacy as a major element in meeting current and future challenges to U.S. national security. This has spurred both policy and structural change within the U.S. diplomatic apparatus to elevate energy security to be a central component of American foreign policy.

As a continuation of efforts to link European NATO allies and friends to the Caspian oil and gas basin, Senator Lugar directed Senate Foreign Relations Committee professional staff members Neil Brown and Marik String to undertake a mission in October 2012 to Azerbaijan, Turkey, and Turkmenistan to assess the status of the Southern Corridor to Europe and related U.S. diplomatic efforts. Staff met with State Department officials in Washington and overseas, host government national security and energy officials, representatives from international and state-owned energy companies, third-country embassy officials, independent experts, as well as foreign embassy officials in Washington, D.C. Specifically, the purpose of the visit was to:

- Investigate the impact of the Obama Administration's decision to effectively eliminate the position of U.S. Envoy for Eurasian Energy Security;
- Assess the status of competing pipeline proposals to carry gas from the Caspian basin to Europe as part of the Southern Corridor;
- Examine the prospect of including gas from Turkmenistan, Iraq, Kazakhstan or the Eastern Mediterranean in the Southern Corridor; and
- Evaluate what opportunities the United States has to increase the effectiveness of its policy on the Southern Corridor;

This trip was timely for several reasons. First, the State Department has signaled that it is unlikely to appoint a new Envoy for Eurasian Energy Security, calling into question whether a part-time or lower-level appointment will carry sufficient weight with regional leaders. Second, growing concern that the Obama Administration is being too risk-averse in support of specific export routes for natural gas makes that staffing decision even more potentially problematic. Third, the world's evolving natural gas markets invite a reassessment of the Southern Corridor's strategic benefit and commercial viability. Fourth, with the coming departure of Senator Lugar from Congress, it will be important that new Members of Congress champion the Southern Energy Corridor project from the legislative branch. Finally, Congress is set to re-assess the scope of Iran sanctions, and it is useful to evaluate whether a continued sanctions exemption for the Shah Deniz project (with its minority Iranian stakeholder) is warranted.

EXECUTIVE SUMMARY

U.S. strategic interests in linking the nations of the Caspian Sea region with European and global markets have long been recognized and supported on a bipartisan basis. Energy is the economic lifeblood of many NATO allies and partners in the Europe and Eurasia region, and dependence on Russia and Iran for energy imports or exports remains a central detriment to those nations' sovereign independence in policymaking, economic development, and security. When U.S. allies and partners are made vulnerable in this way, it undermines our own bilateral relationships and weakens our multilateral diplomatic and military efforts.

Development of a Southern Corridor to link the Caspian to Europe with oil and natural gas pipelines was an early element of a U.S. strategy to end that dependence. The first stage was achieved with the completion of the Baku-Tblisi-Ceyhan (BTC) oil pipeline from Azerbaijan to a Turkish Mediterranean port and the South Caucasus Gas Pipeline (SCP) from Azerbaijan to Turkey.

This report examines the next stage of Southern Corridor development. Utilizing expanded production of natural gas in Azerbaijan as a supply anchor, this stage envisions the expansion of the South Caucasus Pipeline, a new pipeline route across Turkey, and construction of one or more pipelines from the Turkish border further into Europe. The United States and our allies have also pressed for additional gas from Turkmenistan and Iraq to supply the Southern Corridor.

The next phase of the Southern Corridor would advance several U.S. and NATO foreign policy objectives: it would further isolate Iran, assist in cultivating partners in the Caucasus and Central Asia and bolster their sovereign independence, and perhaps most importantly, curtail Russia's energy leverage over European NATO allies. Among EU countries, Austria, Bulgaria, the Czech Republic, Estonia, Finland, Latvia, Lithuania, Poland, and Slovakia all depend on Russia for over 60 percent of their gas imports; EU aspirants such as Moldova, Turkey, and Ukraine rely on Russia for over 65 percent of their imports. Instead of allowing the market to produce a windfall for the Russian economy, the Kremlin has undertaken a series of astonishingly antagonistic policies. Russian energy cutoffs in the cold of winter, energy contract coercion, and use of the Nord Stream and South Stream pipelines to further isolate certain European markets have underscored the need for an alternative gas corridor to Europe.

Natural gas imports are likely to occupy an increasingly central role in Europe's energy portfolio, necessitating multiple alternatives such as a new Southern Corridor. Europe's reliance on natural gas imports has been exacerbated by a steep decline in natural gas production within Europe, Germany's decision to phase out nuclear power (France, too, is considering a scaling back of nuclear energy), and opposition to shale gas in several EU countries. Although Europe's unconventional shale gas resources could impact Central European energy markets in the future, the results of exploration have been uneven, and significant production is not expected in the near term. Numerous European nations are also ramping up capacity to import liquefied natural gas (LNG).

Turkey's rapidly growing domestic energy demand has been a central dynamic to the Southern Corridor and merits more priority in the U.S.-Turkey bilateral relationship. In particular, its willingness to allow transit of significant amounts of natural gas to Europe, even when its own domestic market could easily consume the gas, has bolstered the prospects for the Southern Corridor. The small amount of Turkish trade in Iranian gas is a growing area of concern as sanctions are further tightened. However, Turkey currently has no capacity to fully replace Iranian natural gas imports, which would require both new supplies and new domestic pipeline capacity to move gas between regions.

Azerbaijan is the pivotal supplier for the Southern Corridor and is positioned to be a long-term transit hub for potential trans-Caspian supplies from Turkmenistan and Kazakhstan. For the past two decades, Azerbaijan's leadership has made the strategic calculation to use new pipelines to forge closer ties with the West. BP is the largest foreign investor and principal operator of Azerbaijan's oil and natural gas projects, including the major offshore field, Shah Deniz. The Shah Deniz consortium is scheduled to make a final investment decision for expansion (Shah Deniz II) by late 2013, gas from which will be the anchor for expanding the Southern Corridor to Europe.

With its 2009 Intergovernmental Agreement, the Nabucco Pipeline had once been envisioned to be the onward Southern Corridor route to Central Europe from SCP's Turkish terminal. Though its original concept has faced subsequent delays, the Nabucco pact was momentous symbolically because, for the first time, Turkey, other transit nations (Bulgaria, Romania, Hungary, and Austria), and the EU demonstrated a willingness to assert their common political interest in natural gas supply diversification.

In 2011, the Turkish and Azerbaijani Governments seized the initiative to put forward their own government-backed proposal, the Trans-Anatolian Pipeline (TANAP), the most significant development for the Southern Corridor since 2009. TANAP would replace the portion of the Nabucco Pipeline concept through Turkey, delivering 10 bcm of Shah Deniz II gas to the Turkish-EU border and leaving 6 bcm for consumption in the Turkish market. TANAP's management structure is far simpler than Nabucco with only two governments driving initial strategic decisions, and Azerbaijan will invest the majority of capital required. However, TANAP's terms also have potentially worrying implications. SOCAR's controlling 51 percent stake raises concern that Azerbaijani gas may receive priority in TANAP, potentially precluding westward throughput capacity for additional trans-Caspian gas from Turkmenistan or Iraq.

From TANAP's terminal at the EU border, a decision must still be made on the final westward route of this stage of the Southern Corridor, determining the project's ultimate strategic value. Two options remain: the Trans-Adriatic Pipeline (TAP) from Turkey through Greece and Albania and under the Adriatic Sea to Italy; and the Nabucco West Pipeline, a scaled-back proposal that follows Nabucco's original route through the EU, transiting Bulgaria, Romania, Hungary, and delivering gas to the distribution hub in Austria.

Nabucco West would most clearly advance U.S. foreign policy interests, directly providing energy to those countries in Central and Southeastern Europe in greatest need of diversification away from Russian supply. Specifically, Nabucco West would introduce international competition in the region that would improve negotiating posture with Russia, reduce the potency of potential supply disruptions, and bolster the political and economic sovereignty of NATO allies and partners. By contrast, the strategic benefit that the EU and United States would derive from facilitating a TAP pipeline would be exceedingly narrow, resulting principally in a gas glut in Italy. As the pipelines are currently proposed, Nabucco West is clearly superior to TAP for U.S. foreign policy interests in the region.

Thus far, the United States Congress has granted a narrow exemption for the Shah Deniz consortium from financial sanctions, which have been considered due to the 10 percent share in Shah Deniz held by the National Iranian Oil Company as a "passive investor." Congressional support for sanctions exemptions is based on compelling benefits for U.S. national security interests, and these interests will be advanced by an expansion of the Southern Energy Corridor, irrespective of whether the Shah Deniz consortium selects TAP or Nabucco West. However, Iran sanctions will inevitably be reviewed and tightened in the coming months, and the standards for sanctions exemptions will become increasingly stringent. Selection of TAP as currently proposed would weaken the argument that Shah Deniz II and its ancillary projects are of such immense benefit to U.S. security interests that they should trump further sanctions against Iran.

Beyond Shah Deniz II gas, securing additional supplies for the Southern Corridor is crucial. Turkmenistan's conventional natural gas supply, the world's fourth largest, has high potential for being joined to the Southern Corridor by constructing a Trans-Caspian Pipeline from Turkmenistan to Azerbaijan's energy infrastructure. However, a combination of inscrutable leadership, geopolitical pressure by Russia, and an investment climate unfriendly to energy majors has hampered progress, and the window for Turkmenistan's participation in the Southern Corridor may be closing. Most critically, the President of Turkmenistan must be willing to assert his nation's political independence from Russia by executing the necessary reforms that will make increased production and trans-Caspian transit a reality.

The need to embolden former Soviet states in making strategic energy decisions is not unfamiliar. The United States, Turkey, and the European Union have a key role to play in building an international political and commercial coalition in favor of trans-Caspian natural gas flows. An intriguing near-term possibility would be for Turkey to purchase Turkmen gas, possibly through small sub-Caspian Sea connections to Azerbaijan, which would increase confidence and help meet Turkey's domestic needs. Concurrently, the United States and the EU should press ahead on facilitating a longer-term multilateral Caspian gas transit agreement. Russia could also be invited to play a constructive role in these talks.

Iraqi gas could also reach Europe through the Southern Corridor. In 2009, Iraqi Prime Minister Nouri al-Maliki suggested that Iraq could contribute up to 15 bcm to the Southern Corridor, but little progress has been made towards this goal due to deep internal Iraqi disagreements on energy revenue sharing and flagging progress on domestic electrification within Iraq. U.S. policy should be under constant review to ensure that internal political disputes are not unduly hindering projects beneficial for Iraq, regional stability, and U.S. private investment.

Elsewhere, Kazakhstan already participates in the Southern Corridor by exporting oil trans-Caspian and then through the Baku-Tblisi-Ceyhan pipeline, but its 1.9 tcm of natural gas reserves remain relatively underdeveloped. In the Eastern Mediterranean, discussions on Southern Corridor linkages should also begin with Israel, given its abundant reserves, ready access to capital, and strong rule-of-law protections.

The United States, too, has an opportunity to directly address the energy insecurity of our NATO allies in Europe. U.S. shale gas reserves have already transformed European gas markets since LNG previously destined for the United States has now been made available for Europe. The United States can do much more to allow LNG trade with NATO allies in need of supply diversification and, in doing so, to promote economic growth in the United States. The LNG for NATO Act, introduced by Senator Lugar, would achieve this objective by placing NATO allies on an equal footing with other free trade partners with respect to access to U.S. natural gas trade.

Extension of the Southern Corridor is particularly advantageous now. Some critics may argue that the Southern Corridor should be a lower priority: U.S. shale gas and global LNG trade is producing more market liquidity, thus tending to lower prices and improve Europe's negotiating position with Russia. Russia's Gazprom has been forced to change its domestic strategy, including abandoning its flagship Shtokman project in the Arctic, and it has had to contend with plummeting market value and a new EU antitrust investigation. These trends may or may not last, but their existence today gives the United States an unprecedented opportunity to advance broad natural gas diversification and break Russia's control over European gas markets. The Southern Corridor and approval of U.S. LNG exports are vital for achieving these strategic objectives in Central and Southeastern Europe and Turkey.

These many dynamics to the Southern Corridor and Eurasian energy security will require constant attention by the United States. Thus, the preliminary State Department decision to discontinue the dedicated position of U.S. Special Envoy for Eurasian Energy Security, with direct reporting authority to the Secretary of State, is particularly disappointing and threatens to undermine U.S. engagement. Indeed, the need for continuing the Special Envoy position was roundly supported in staff's discussions with NATO allies and partners throughout the region. The State Department should restore the dedicated Special Envoy position to ensure that U.S. energy diplomacy can reach the senior levels of government in the Caspian region and within the U.S. bureaucracy. Much is expected of U.S. leadership, and exceeding those expectations comes at little cost but offers great gains.

U.S. INTERESTS IN THE SOUTHERN ENERGY CORRIDOR

U.S. strategic interests in linking the nations of the Caspian Sea region with European and global markets have long been recognized and supported on a bipartisan basis. Energy is the economic lifeblood of many NATO allies and partners in the Europe and Eurasia region, and dependency on Russia for energy imports or exports remains a central detriment to those nations' sovereign independence in policymaking, economic development, and security.

Development of a Southern Corridor to link the Caspian to Europe with oil and natural gas pipelines was an early element of U.S. strategy. The first stage was achieved with the completion of the Baku-Tblisi-Ceyhan (BTC) oil pipeline and the South Caucasus Pipeline (SCP) for natural gas. Both pipelines carry energy resources from Azerbaijan's offshore fields to Georgia and onward to Turkish markets for natural gas and to global markets for oil. The BTC pipeline has also served as the first non-Russian energy bridge across the Caspian, providing market access for trans-Caspian tankers carrying Kazakh oil.

This report examines the second stage of Southern Corridor development. Utilizing expanded production of natural gas in Azerbaijan as a supply anchor, this stage envisions the expansion of the South Caucasus Pipeline, a new pipeline route across Turkey, and construction of one or more pipelines from the Turkish border further into Europe. The United States and our allies have also pressed for additional gas to supply the Southern Corridor from Turkmenistan and Iraq.

The United States, regional NATO allies, and other production and transit states have all reaped benefits from the first stage of the Southern Corridor, and those benefits would be enhanced significantly with successful expansion of natural gas trade.

First, regional energy diplomacy has opened a new venue for U.S. engagement in the region. The Southern Corridor has strengthened ties, in particular, with Azerbaijan, a secular majority-Shi'a Muslim nation that borders Iran, and has bolstered the foundation for cooperation on non-proliferation through Nunn-Lugar Global and counter-terrorism, even as Azerbaijan must still make progress on civil society and governance issues. Moreover, the entrance of numerous multinational energy companies has exposed the governments in the Caspian region to the importance of rule-of-law and investment climate issues.

Second, the Southern Corridor has provided post-Soviet nations with internal strength to assert their independence from Russia. Additional states not currently connected to the Southern Corridor remain vulnerable. Several NATO allies have been susceptible to energy supply cutoffs and political manipulation from their over-reliance on Russia, and the Southern Corridor, along with a broader diversification and energy efficiency strategy, will alleviate this dependence. For energy producing nations in the Caspian basin, the Southern Corridor offers export diversity and stable consumer markets in Europe to ameliorate the effect of the whims of Russian energy policy.

Third, the Southern Corridor could, somewhat paradoxically, encourage the Russian energy sector to assume a more market-oriented trajectory. Even as the Kremlin strengthens control over its state-dominated energy industry and uses the Nord Stream and proposed South Stream pipelines to tighten its grip on Europe, if energy becomes less effective as a tool of political coercion, the Russian energy market will have a stronger chance of reorientation towards market dynamics. This development would be beneficial to the United States, Europe, and Russia since market-led Russian economic growth will encourage stability. With respect to the Southern Corridor, Russia could even be granted the chance to be a constructive partner by bidding its natural gas in competition for excess pipeline capacity.

Fourth, the Southern Corridor will further isolate Iran. While Iran's natural gas exports are relatively small compared to oil (the latter is currently subject to U.S. sanctions), gas sales nonetheless provide economic receipts and political leverage, particularly in relation to Turkey in winter.

Fifth, future pipelines linking the Middle East to the Southern Corridor could foster cooperation and stability. In the future, gas from Iraq, Egypt, and Israel, and perhaps other Eastern Mediterranean countries could all be linked to Europe, creating mutual dependence and creating new export routes beyond the Persian Gulf.

Extension of the Southern Corridor is particularly advantageous now. Some critics may argue that the Southern Corridor should be a lower priority: U.S. shale gas and global LNG trade is producing more market liquidity, thus tending to lower prices and improve Europe's negotiating position with Russia. Russia's Gazprom has been forced to change its domestic strategy, including abandoning its flagship Shtokman project in the Arctic, and it has had to contend with plummeting market value and a new EU antitrust investigation. These trends may or may not last, but their existence today gives the United States an unprecedented opportunity to advance broad natural gas diversification and break Russia's control over European gas markets. The Southern Corridor and approval of U.S. LNG exports are vital for achieving these strategic objectives in Central and Southeastern Europe and Turkey.

The U.S. Special Envoy for Eurasian Energy Security

Regrettably, following completion of the first stage of the Southern Corridor, U.S. energy diplomacy in the follow-on stages lost priority. While a few talented U.S. diplomats kept the project moving forward with suppliers in the Caspian and consumer nations in Europe, a diminishment of high-level attention was incongruous with the key U.S. national interests at stake and ignored the reality that energy decisions in the Caspian region are made at the most senior levels of government.

In 2006, Senator Lugar, as committee Chairman, authored and led broad bipartisan support for the Energy Diplomacy and Security Act, a bill designed to invigorate diplomatic engagement on energy issues throughout U.S. foreign policy around the world. In December 2007, portions of that bill became law, leading to the creation of the post of International Energy Coordinator and eventually precipitating a 2011 State Department reorganization to establish a Bureau of Energy Resources (ENR), which is ably led by Ambassador Carlos Pascual.

Even as these measures enhanced U.S. energy diplomacy broadly, Senator Lugar pushed for breakout progress on high priority areas, including the Southern Corridor. He led Congressional Delegations focusing on energy to Azerbaijan, Brussels, France, Georgia, Germany, Romania, Russia, Kazakhstan, Turkey, Turkmenistan, and Ukraine (see Appendix I) and called for energy security to be incorporated into NATO's Article Five mutual defense commitment (see Appendix II). In partnership with then-Senator Joseph Biden, Senator Lugar encouraged the Bush Administration to re-establish high-level U.S. engagement on Eurasian energy security (see Appendix III). In response, Secretary of State Condoleezza Rice named Ambassador C. Boyden Gray as Special Envoy for Eurasian Energy Affairs. Secretary of State Hillary Clinton continued and enhanced this position by appointing a close confidant, Ambassador Richard Morningstar, whose outstanding work led to major breakthroughs in recent years, including the 2009 Nabucco Intergovernmental Agreement.

The Office of the Special Envoy assured governments in the region, and the U.S. Congress, that the United States was engaged on Eurasian energy security at the most senior levels with direct reporting authority to the Secretary of State. Beyond the Caspian region, the Special Envoy played a critical role in advocating for internal energy reform in Europe, as well as encouraging the EU's external energy diplomacy. The Special Envoy position also benefitted from the ability to take ad hoc trips to specific capitals when additional prodding was needed, as opposed to being permanently based in one capital as with bilateral U.S. ambassadors.

Regrettably, the State Department has recently indicated that it will not retain the dedicated Special Envoy position but that the Assistant Secretary for ENR will be dual-hatted as Special Envoy. The ENR Bureau serves critical roles in ensuring that energy security is systematically prioritized across U.S. foreign policy and bolstering needed energy-related expertise to meet U.S. security and economic interests. Yet, it is a small bureau with global responsibilities.

The preliminary State Department decision to not re-appoint a Special Envoy for Eurasian Energy threatens to undermine recent progress on the Southern Corridor and could be interpreted as an attempt by the United States to retrench from many years of strong engagement. Indeed, the need for high-level U.S. engagement was roundly supported in discussions throughout the region. As one foreign official said, "There is a perception that U.S. engagement is fading away, so not having a Special Envoy would confirm this view." Another foreign official noted that Secretary Clinton and Ambassador Morningstar were perceived to be carrying the entire energy security portfolio for the U.S. Government, with scant engagement from the White House: "With the Obama Administration, we don't have the leadership we had under President Clinton for energy in this region," one official remarked. Another European official noted that the European Union cannot replace the United States on these energy issues, given that the EU's energy policy is fragmented and backed only by soft power, underscoring the need for U.S. energy engagement in Brussels and European capitals. Much is expected of U.S. leadership, and exceeding those expectations comes at little cost but offers great gains.

Although it does seem logical to house the Office of the Special Envoy in the new ENR Bureau, this aspect of the reorganization must meet at least three criteria to be successful. First, high-level representation is essential to access the decision-making levels of government in the region. If a U.S. energy envoy is not speaking directly with presidents or prime ministers on a regular basis, then the mission will fail. Second, continuing the U.S. role as key arbiter in the region requires shuttle diplomacy and constant on-the-ground care in order to cut through misinformation and misperceptions between capitals. The Assistant Secretary for ENR will be busy tending to a demanding global portfolio, and our bilateral U.S. ambassadors have a full-range of bilateral issues on their agendas and lack the mandate for this type of diplomacy. Finally, the Special Envoy must be able to ensure the Southern Corridor remains on the agenda at highest levels of the State Department, which is assisted by direct reporting authority to the Secretary.

> **Recommendation:** Restore the dedicated position in the State Department for U.S. Envoy for Eurasian Energy Security. While no doubt led capably by an Assistant Secretary, the ENR Bureau will face myriad challenges, detracting from the high-level and consistent attention required to facilitate the conclusion of the Southern Corridor and secure additional sources of gas from Turkmenistan, Iraq, and beyond. Energy decisions in the Caspian region are made by the senior national leadership, making it all the more important to have an interlocutor from the United States with ambassadorial rank who reports directly to the Secretary of State. Finally, an Envoy based outside of the region possesses a better ability to objectively assess progress and avenues for U.S. advocacy compared to U.S. ambassadors in the region, who, despite their competence, will necessarily be focused on a wide array of bilateral issues.

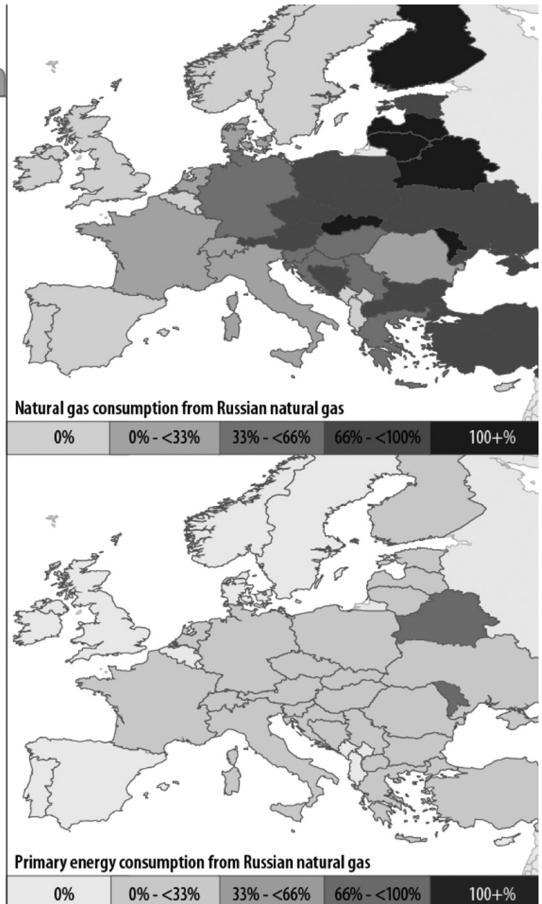
CONNECTING THE CASPIAN AND EUROPE[1]

European Natural Gas Vulnerability

The European Union (EU) is the world's largest importer of energy,[2] and its overall energy and climate strategy has exacerbated its reliance on natural gas imports. Due to ambitious carbon reduction goals, EU member states are shifting consumption away from oil and coal. Increased dependence on natural gas imports has been furthered by declining indigenous gas production as well as certain national decisions, such as Germany's decision to phase out nuclear power by 2020. European shale gas may offer a domestic alternative in the future, but progress has been uneven and faces political headwinds exemplified by French and Bulgarian prohibitions.[3] Meanwhile, national capitals have historically encumbered EU efforts to unbundle natural gas markets, thereby reducing pricing and supply benefits of competition. For example, lack of price competition in Italy is partly driving rivalry on the future destination of Caspian gas (discussed below).

European & Other Consumption of Russian Natural Gas (%)

	Natural Gas	Primary Energy
Albania	0%	0%
Austria	67%	12%
Belarus	100%	72%
Belgium	0%	0%
Bosnia & Herz.	76%	4%
Bulgaria	89%	13%
Croatia	42%	12%
Cyprus	0%	0%
Czech Republic	92%	15%
Denmark	1%	0%
Estonia	76%	11%
Finland	100%	10%
France	21%	3%
Germany	48%	9%
Greece	46%	8%
Hungary	57%	23%
Ireland	0%	0%
Italy	24%	8%
Kosovo	0%	0%
Latvia	100%	26%
Lithuania	100%	29%
Luxembourg	0%	0%
Macedonia	76%	3%
Malta	0%	0%
Moldova	100%	83%
Montenegro	0%	0%
Netherlands	12%	4%
Norway	0%	0%
Poland	71%	9%
Portugal	0%	0%
Romania	23%	6%
Serbia	60%	7%
Slovakia	100%	27%
Slovenia	50%	5%
Spain	0%	0%
Sweden	0%	0%
Switzerland	9%	1%
Turkey	71%	20%
Ukraine	68%	26%
U.K.	0%	0%
TOTAL	36%	8%



Source: Consumption data from PIRA Energy; boundary data from ESRI, 2005.
Graphic created by CRS.
Borders are not necessarily authoritative.

EUROPEAN AND OTHER CONSUMPTION OF RUSSIAN NATURAL GAS (PERCENTAGE)

Natural gas is generally traded in regional markets under long-term contracts linked to global oil prices, with European Union import supplies dominated by Russia, Norway, and Algeria. However, European markets are slowly evolving with the rise of spot markets, which are breaking traditional natural gas pricing linkages to oil prices. A major factor in this dynamic is the rise of shale gas in the United States. Liquefied natural gas once destined for U.S. markets is now seeking new consumers, and Europe is attractive for shipments via tanker from diverse locations in Africa and the Middle East. Even Gazprom has been forced to begin renegotiating rates in selected European markets. Yet, the European market is not fully integrated for pricing or trade, so many nations, particularly Central and Southeastern European countries, face the cold reality of ongoing over-dependence on Russia.

Among EU countries, Austria, Bulgaria, the Czech Republic, Estonia, Finland, Latvia, Lithuania, Poland, and Slovakia all depend on Russia for over 60 percent of their gas imports; EU aspirants such as Moldova, Turkey, and Ukraine rely on Russia for over 65 percent of their imports. But instead of quietly capitalizing on its position as supplier of 36 percent of the European Union's gas, Russia has undertaken a series of astonishingly antagonistic policies, which produce a compelling case for Europe and the United States to take far-reaching steps to reverse Europe's reliance on Russian gas.

For many years, Russia exploited its ability, quite literally, to freeze a nation's population and economy. Between 1998 and 2004, Russia curtailed or cut off energy supplies nearly a dozen times to influence the sale of Lithuanian and Latvian energy infrastructure to Russian companies. In 2006, Russia undertook a barrage of energy intimidation against nearly every one of its neighbors. After Lithuania declined to sell certain oil facilities to a Russian company in favor of a Polish one, Russian energy supplies were cut due to "technical difficulties." Moldova and Georgia faced an ominous Russian demand that same year: pay double the price or have your gas cut off in the cold of winter; Moldova would not initially accede and had its gas cut temporarily.

Most infamously in 2006 and 2009, Russia cut gas supplies to Ukraine in the middle of winter following a dispute over gas prices, debts, and broader political disagreements (and threatened to take similar action in other years). As a major transit country, cutting off gas to Ukraine had ripple effects throughout Central and Western Europe. In 2008, Russia cut supplies to the Czech Republic the day after Prague agreed to host a U.S. missile defense radar on its territory. In 2010, Russia halted gas flows to Belarus amid a purported pricing dispute, affecting gas supplies to Poland, Germany, and Lithuania and then bought Beltransgaz in late 2011, giving Gazprom control of major Belarusian pipelines. Also in 2010, Russia coerced a 32-year lease extension for its Black Sea Fleet in Crimea in exchange for a $40 billion discount to Ukraine on gas over 10 years. Several European nations, including Bulgaria, Moldova, Hungary, Croatia, Greece, and the Czech Republic, face a unique window of vulnerability given that they will all experience an expiration of certain long-term contracts with Gazprom in the next five years (before political diversification would occur through the Southern Corridor in 2017) and may be forced to again be locked into long-term contracts with Russia.

Across Europe, Russia has sought to expand its monopolistic position by seeking to purchase distribution and storage infrastructure. Gazprom has also developed business linkages with many major European oil and gas companies. Although this is expected (and can have certain benefits) due to Russia's massive oil and natural gas reserves, policymakers should recognize that these arrangements inevitably create internal pressures on those companies to avoid projects outside of Russia that might not be viewed favorably by the Kremlin. Furthermore, Gazprom's insistence on long-term contracts with rates indexed to oil prices has created acrimony with European consumers as prices on the spot gas markets across Europe have fallen well below global oil prices.

Meanwhile, Russia's planned South Stream pipeline across the Black Sea to Bulgaria is widely seen as an attempt to stymie Europe's efforts at energy diversification towards Caspian and Middle Eastern gas. The principal rival to the Southern Corridor for natural gas, South Stream is a technologically complex and massively expensive proposal (costing an estimated $21 billion) that has the personal backing of Russian President Vladimir Putin, who presided over its ground-breaking on December 8, 2012. South Stream would stretch from Russia under the Black Sea to Bulgaria with northward connectors to Serbia, Hungary and Austria; and southward connectors to Greece and Italy. Few interlocutors possessed concrete details on South Stream, but it appears that South Stream would by no means preclude the Southern Corridor and itself faces several major economic and regulatory obstacles.[4] South Stream comes on the heels of Nord Stream's direct sub-Baltic Sea connection of Russia and Germany, which was viewed by some in the region as a move to isolate Poland and others.

Policy Response by the Euro-Atlantic Community

Russian provocations in the mid-2000s exposed that the European Union and United States had few tools to come to the energy aid of allies and partners in the region. In recent years, however, the Euro-Atlantic community has begun to take more concerted action.

The EU has deployed an increasingly robust internal policy toward energy security reform and strengthened its resolve to respond to Russia's energy intimidation. In 2011, the EU took a decision that would force energy companies operating in Europe to unbundle their pipeline operations from their downstream sales companies, which may force Gazprom to sell equity in many distribution networks; last year, the EU invalidated Gazprom's acquisition of a 50 percent stake of Central European Gas Hub in Baumgarten, Austria (the very hub at which Southern Corridor gas may arrive). The EU has also sought to fully liberalize the internal European energy market by 2014, to connect all EU states to a common grid by 2015, and to build a series of gas interconnectors (with progress particularly in Hungary) to create fluid regional markets instead of isolated national spot markets dependent on one supplier. The European Commission also recently opened an investigation into Gazprom's anti-competitive practices in Europe, including allegations of having "divided gas markets by hindering the free flow of gas across member states" and "prevented the diversification of supply of gas."

U.S. energy policy can also address Europe's gas vulnerability through the export of U.S. liquefied natural gas (LNG) to countries in need (discussed at length below). Europe relied on LNG for about 26 percent of its gas imports in 2011, but this is expected to increase as additional LNG import terminals and interconnections are being built throughout Europe. Although LNG remains a relatively more expensive solution than gas delivered via pipeline, it is becoming increasingly economic and oftentimes more reliable than pipelines, whose taps can easily be switched off. With a view toward trans-national planning, strategically placed LNG terminals in the Baltics, Poland, Croatia, and Bulgaria, along with expanded storage capacity and pipeline network recalibration, would be particularly useful.

The United States and the European Commission have also worked cooperatively on various elements of the Southern Corridor for oil and natural gas as means of diversification. The first major success was opening of the Baku-Tbilisi-Ceyhan (BTC) pipeline. The EU and United States also joined in encouraging the 2009 signing of the Nabucco Intergovernmental Agreement between Turkey, Bulgaria, Romania, Hungary, and Austria, solidifying the political foundation for a natural gas corridor. Furthermore, in September 2011, the EU Council provided a mandate for the European Union to facilitate an agreement on trans-Caspian energy shipments.

Some skeptics of the Southern Corridor refer to "marginal downstream economics." Under this reasoning, high transport costs associated with a lengthy pipeline, the forced renegotiation of Gazprom's long-term oil-indexed contracts in Europe, global LNG trade, and the potential for shale gas in Europe all suggest falling gas prices in the coming years, potentially washing out any margins for Caspian gas. However, for the foreseeable future, pipeline transit remains more economical than LNG, and shale gas in or near European markets is not likely to be produced in quantities ready for export for, potentially, over 20 years.[5] In light of the EU's carbon emissions decisions, investment in natural gas infrastructure for Europe appears to be a safe bet for decades to come.

Azerbaijan: The Southern Corridor's Supply Anchor

Fully committed to energy trade with the West, Azerbaijan is the pivotal supplier for the Southern Corridor and is positioned to be a long-term transit hub for potential trans-Caspian supplies from Turkmenistan and Kazakhstan. For the past two decades, Azerbaijan's leadership has made the strategic calculation to use new pipelines to forge closer ties with the West, a decision that was by no means inevitable given the substantial cost of vast new pipeline infrastructure and geopolitical pressures from neighboring Iran and Russia.[6] However, Azerbaijan's main alternative to westward trade would be with Russia, which is not an attractive prospect: as one senior official said, "gas is a matter of survival for our country" because of the independence it provides.

Azerbaijan has developed close ties with BP, which has become its largest foreign investor and operates several key offshore fields, terminals, and pipelines from Baku. Most importantly for the Southern Corridor under examination here, BP operates the Shah Deniz[7] offshore gas field and the South Caucasus Pipeline (SCP), which has carried natural gas since 2006 from Baku, through Georgia, to the Erzurum terminal in Turkish Anatolia. In addition to Shah Deniz' current 9 bcm gas production capacity, the Shah Deniz Consortium is scheduled to make a final investment decision of approximately $23 billion (upstream) for the expansion of Shah Deniz field development (known as Shah Deniz Phase II) by late 2013, although several interlocutors foresaw likely delays until the end of 2013. That investment is expected to produce an additional 16 bcm by 2017 that will be transported to Turkey (6 bcm) and onward to other European nations (10 bcm). Although technically a decision for the entire Shah Deniz consortium, Azerbaijan's State Oil Company (SOCAR) and BP will play a central role in selecting the pipeline routes that will take gas to Europe.

Azerbaijan is also expected to experience additional natural gas production in new offshore fields, strengthening its position as the Southern Corridor linchpin for perhaps several decades. France's Total has announced discovery of 300 bcm of gas in the Absheron offshore field, which is expected to begin producing in 2020. Azerbaijan may soon tender a new production sharing agreement for deepwater segments of the Azeri, Chirag, and Gunashli fields ("ACG Deep"). By 2030, analysts estimate Azerbaijan alone could produce 30–50 billion cubic meters annually.[8]

Some interlocutors noted that the presence of new international oil company entrants into Azerbaijani production may bring helpful competition and temper several increasingly acrimonious disputes between the Azerbaijani Government and BP. In October 2012, Azerbaijani President Ilham Aliyev took the major step of publicly rebuking BP for its "numerous mistakes" resulting in underperforming oil extraction, which is essential to Azerbaijan's finances (as the Azerbaijani saying goes, oil is about money and natural gas is about politics).[9] Although much of the rhetoric on both sides of the argument is political positioning, the uncertainty may ricochet to Shah Deniz II (if investors lose confidence) and to trans-Caspian trade (if the Turkmenistan Government sees mostly tumult in the Azerbaijani energy sector).

Indeed, this dispute is emblematic of the increasingly tense relationship between the Government of Azerbaijan, SOCAR, and BP. At the time of the Staffdel visit to Baku, a similarly acrimonious dispute was underway between BP and SOCAR on the engineering options available to upgrade the South Caucasus Pipeline (SCP) that will be necessary to accomodate Shah Deniz II gas supply.[10] Although the SCP dispute has reportedly been resolved, the fact that a technical dispute could so easily flare into a crisis between BP and SOCAR is cause for concern with the myriad investment decisions currently pending.

> **Recommendation:** Encourage SOCAR to participate more fully in technical and operational discussions in Shah Deniz and other field development to minimize future miscommunications.

Beyond Azerbaijani natural gas (1.3 trillion cubic meters, or tcm, of reserves), other regional powers, beginning with Turkmenistan (24.3 tcm) and possibly including Kazakhstan (1.9 tcm) and Uzbekistan (1.6 tcm), could transform Azerbaijan into a key gas transit hub as well.[11] However, Azerbaijan has yet to fully embrace this prospect and has sent mixed signals on its willingness to allow other nations' natural gas to compete with its own in the Southern Corridor. Without guaranteed transit access, a trans-Caspian pipeline (discussed further below) is a non-starter.

In light of the key role for Azerbaijan in the Southern Corridor over the coming decades, as well as regional security concerns, the United States has dedicated substantial resources to critical energy infrastructure protection and interdiction of illicit materials. For example, the Nunn-Lugar Global and other Defense and State Department programs have provided radars to monitor offshore activities near Caspian energy platforms, bolstered Azerbaijani Coast Guard assets, and assisted in the construction of a maritime command-and-control center and a naval port.[12] Although no overtly hostile activity has occurred in the Caspian in recent years, the Caspian littoral nations have yet to delimit the Caspian's waters, leading to several energy exploration-related disputes and military exercises.[13]

> **Recommendation:** The United States should ensure that the Ambassadorial post in Baku does not remain absent for extended periods of time. The U.S.-Azerbaijan relationship benefits from a solid anchor based on energy, non-proliferation, and counter-terrorism cooperation, as well as skilled Ambassadors such as Ambassador Richard Morningstar and his predecessor Ambassador Matthew Bryza. However, the ambassadorial post has previously been vacant for extended periods of time, which has caused confidence in the relationship to suffer and undermined U.S. interests in the region.

TANAP Overtakes Nabucco

The June 2012 signing of the Trans-Anatolian Pipeline (TANAP) Intergovernmental Agreement by the Governments of Azerbaijan and Turkey has been the most significant development for the Southern Corridor since 2009.

Signing of the 2009 Nabucco Intergovernmental Agreement was a tremendous step forward for the Southern Corridor concept that transcended the benefits of any particularly transit route, including the proposed Nabucco Pipeline itself.[14] First, by agreeing to allow substantial amounts of natural gas to simply transit its territory, Turkey set aside the policy that required either the purchase of all of the gas for its own onward resale or for Turkey's own domestic consumption. Second, the Nabucco Agreement demonstrated that European nations were finally willing to assert their common political interest in natural gas supply diversification.

Despite the unprecedented political support enjoyed by the Nabucco Consortium,[15] culminating in the 2009 Intergovernmental Agreement, the project has proven vulnerable to infighting among the consortium members (each previously wielding veto authority); disputes with the BP-led Shah Deniz consortium; and divide-and-rule tactics employed by the Kremlin. As one interlocutor said, "all they [Nabucco] do is fight with each other." The situation was not helped by Turkey and Azerbaijan going rounds on pricing terms. Some level of uncertainty has been justified given that the Shah Deniz II full field development is expected to produce only 16 bcm during its initial stages beginning in 2017, while Nabucco itself was originally envisioned to have a 31 bcm capacity. While supplies of natural gas from Turkmenistan (whose President had indicated willingness to participate) and Iraq (whose Prime Minister pledged to deliver 15 bcm to the Southern Corridor) could potentially fill the extra capacity, insufficient tangible progress was made to secure those additional sources.

As the Nabucco "classic" original proposal stalled, the Governments of Turkey and Azerbaijan began negotiations themselves on two alternatives to the Nabucco trunk line across Turkey: an upgrade of existing infrastructure operated by the Turkish Petroleum Pipeline Corporation (BOTAS) or a new pipeline called TANAP. Given the limited capacity of the BOTAS system, the two governments in June 2012 selected TANAP, which will initially carry 16 bcm and will be scalable up to 60 bcm over the coming decades as additional Azeri gas and other sources become available. Of the 16 bcm available initially from Shah Deniz II, Turkey will purchase 6 bcm for domestic consumption, leaving 10 bcm for onward supply to Europe. Compared to the Nabucco "classic" proposal, TANAP's management structure is far simpler with only two governments driving initial strategic decisions and Azerbaijan investing the majority of capital required.

The next steps for TANAP will be the ratification of the Intergovernmental Agreement by the Turkish parliament (Azerbaijan ratified the agreement in November 2012) and finalization of equity sales. Initially, TANAP's equity is split between SOCAR (with an 80 percent share) and BOTAS and Turkish Petroleum (TPAO) dividing a 20 percent share. It is expected that Shah Deniz consortium members BP, Statoil, and Total will purchase part of SOCAR's stake, leaving the Azerbaijani state company a controlling 51 percent stake in TANAP.

Shah Deniz consortium members have expressed several concerns about TANAP. One member contended that it will not make a final investment decision in Shah Deniz II unless it will be guaranteed use of existing BOTAS pipelines in case TANAP is not completed in time for Shah Deniz II gas to come online in 2017.[16] Given previous delays by Turkey and Azerbaijan in finalizing natural gas agreements (combined with the possibility of a reorganization of BOTAS), concerns about delays are reasonable. However, absent substantial additional capital, the BOTAS system itself is not a viable option, and it is unlikely that Shah Deniz consortium members would be willing to pay, even on a temporary basis, the exceptionally high tariff rates required to finance those upgrades.

> **Recommendation:** Turkey should plan, as a contingency, to upgrade the existing BOTAS system to transport Shah Deniz gas in 2017, in case TANAP is not completed on time.

Some Shah Deniz members complain that they have been kept in the dark about the likely tariffs and technical engineering of TANAP, which should be disclosed and analyzed by the end of 2012 if a timely final investment decision in Shah Deniz II is to occur. Indeed, the Shah Deniz consortium members, as potential equity partners of TANAP, must also be able to agree to all of TANAP's terms, and private entities will often require more ambitious returns on investment than state-backed companies. This could remain a critical point of contention, as other officials involved in TANAP have insisted that tariff negotiations will not occur until SOCAR sells its TANAP equity shares to fellow Shah Deniz consortium members in early 2013.

TANAP's terms also have potentially worrying implications for future gas supplies for the Southern Corridor. Given that Azerbaijan's SOCAR will retain a controlling 51 percent stake in TANAP, several interlocutors expressed concern that SOCAR will exercise a right of first call on TANAP's capacity for Azerbaijani gas. In other words, all Azerbaijani gas may receive priority in TANAP, potentially precluding westward throughput capacity for additional trans-Caspian gas from Turkmenistan or from Iraq and raising concerns in Europe about lack of supply price competition. Absent a guarantee from Azerbaijan that Turkmen gas would have access, trans-Caspian flows are a non-starter, which also will weaken Azerbaijan's long-term economic and geopolitical position vis-a-vis energy supplies. Securing such a guarantee from Azerbaijan should be a top priority for U.S. diplomats.

Recommendation: Azerbaijan should guarantee that Turkmen gas, as well as additional future trans-Caspian and Iraqi sources, would have access to capacity in the TANAP and SCP pipelines. Some portion of pipeline capacity should be open to competitive bidding.

Turkish Domestic Energy Dynamics

Turkey's domestic energy situation remains a central consideration in the development of the Southern Corridor and warrants a higher priority in the bilateral relationship. Turkey's willingness to allow transit of significant amounts of natural gas to Europe, even as its own domestic market could easily consume the gas, has been a key to progress in the Southern Corridor. Turkey is expected to consume approximately 48 bcm of gas in 2012, but demand is expected to exceed 60 bcm within ten years. With few known indigenous oil and natural gas resources, Turkey relies on imports for 90 percent of its oil and nearly 100 percent of its gas demand. Meanwhile, Turkey has little natural gas storage capacity, which weakens its ability to manage supply disruptions and suggests that it will continue to need slack in its LNG import capacity to compensate for unexpected disruptions.

Turkey is eager to secure additional sources of gas from Turkmenistan, Iraq, and others and would have readily purchased all 16 bcm of Shah Deniz II gas that will be available in 2017 instead of agreeing with SOCAR to send 10 bcm onward to Europe. Currently, Turkey imports most of its gas from Russia, arriving either via Bulgaria and Romania (16 bcm) or across the Black Sea in the Blue Stream pipeline (10 bcm). In the past, Russia has stepped in to assist Turkey with additional gas flows in times of shortage. Turkey also takes 7 bcm of gas from Azerbaijan via the South Caucasus Pipeline, and it imports through a single LNG terminal connected to the Mediterranean for Algerian and Nigerian gas. BOTAS has announced the development of three additional LNG projects to increase its import capacity in 3–4 years.

Turkey imports the remaining 20 percent of its gas from Iran pursuant to a 1996 long-term contract that ends in 2026. Due to the exorbitant rate, poor quality gas, and unreliability of Iran (Iran has cut supplies in times of its own domestic need during winter), Turkey has on several occasions sought to re-negotiate the contract, which Iran has rejected. The parties are currently in international dispute resolution over price renegotiation.

As the international community seeks to put more pressure on Iran's nuclear weapons ambitions, Turkish trade in Iranian gas is a growing area of concern in Ankara—and should be in Washington. The Council of the European Union took a decision in October 2012 to apply further financial sanctions against Iran and noted in its directive that "the purchase, import or transport of natural gas from Iran should be prohibited," which could potentially lead to sanctions against those who "provide, directly or indirectly, financing or financial assistance ... related to the import, purchase or transport of Iranian natural gas."[17] Apart from complicating Turkey's bid to join the EU, this provision could draw Turkey itself directly into the EU's sanctions regime if Turkey cannot certify that no Iranian gas is commingled with the Southern Corridor supply.

The United States Congress is also likely to continue pressing for strengthened sanctions against Iran. While the amount paid by Turkey for Iranian gas is meager (compared to Iran's oil revenues paid partly by several other U.S. allies), natural gas sanctions will likely be part of future Congressional debate. However, Turkey currently has no capacity to fully replace Iranian natural gas, which would require both new supplies and new domestic pipeline capacity to move gas between regions. In any case, contract terms may require Turkey to pay for the Iranian gas even if it does not accept delivery. Unfortunately, efforts begun under the Bush Administration to jumpstart alternative energy investments in Turkey have atrophied.

> **Recommendation:** Turkey should expand its LNG import capacity, upgrade internal pipeline connections, import gas from Turkmenistan (see below), and invest in alternative energy supplies to alleviate its high dependence on Iranian gas, which could soon be subjected to international financial sanctions. The United States should reinvigorate technical assistance and commercial support for investment in these projects, and facilitate financing through actions of the U.S. Trade and Development Agency, Overseas Private Investment Corporation, and international financial institutions.

Security for European Allies: Nabucco West vs. Trans Adriatic Pipeline

At the western end of the Southern Corridor, a final decision must still be made on the initial route of natural gas (sourced in the Caspian, transiting the SCP, most likely transiting TANAP) onward from the Turkish-EU border. By June 2013, the BP-led Shah Deniz consortium is scheduled to decide between two alternative pipeline proposals that will determine the ultimate destination of Caspian gas and, thus, the overall strategic value of the Southern Corridor.

One option is the Trans-Adriatic Pipeline (TAP), stretching from Turkey through Greece and Albania and under the Adriatic Sea to Italy. A second option is the Nabucco West pipeline, a scaled-back proposal following Nabucco's original route through the EU, transiting Bulgaria, Romania, Hungary, and delivering to the gas distribution hub in Austria. These two options remain after the

Shah Deniz consortium eliminated two pipeline options, the Interconnector Turkey-Greece-Italy (ITGI)[18] and the Southeastern Europe Pipeline (SEEP)[19] in February 2012 and June 2012, respectively.

Without doubt, TAP has advantages. With an initial capacity of 10 bcm, it is likely to be less costly: it is shorter than Nabucco West and most of its length will lie under the Adriatic, requiring less complex engineering. Compared to Nabucco West, TAP also benefits from a less unwieldy management structure of only three energy companies, Swiss EGL, German E.ON, and Norwegian Statoil (a Shah Deniz partner). TAP could help diversify Albanian energy supplies, and further connections to other Balkan nations in need of diversification would be technically feasible;[20] however, these additional regional connections are not part of TAP's current proposal and have no ready sources of financing. TAP could also encourage competition in the Italian market, prodding sorely needed regulatory reforms. Although TAP has suffered from a relative lack of political clout, this was partly remedied by the signing of a tripartite Ministerial Agreement on September 28, 2012 between Albania, Italy, and Greece. Due in large part to these attributes, some Shah Deniz Consortium members assert, without providing specific details, that TAP is commercially preferable absent a cost revision in the Nabucco West proposal.

However, the strategic benefit that the EU and United States would derive from facilitating a TAP pipeline would be exceedingly narrow, resulting principally in a gas glut in Italy. In fact, some supporters of TAP argue that the principal benefit would be the promotion of price competition in Italy and enabling more (likely Russian) gas supply to flow to Western European markets. However, genuine price competition depends on structural reforms in Italy's internal market, not simply additional supply, and Western Europe (particularly Italy) already benefits from supply diversification, as well as the build-out of renewable energy. Albania, Greece, and Italy all rely on Russia for less than 46 percent of their gas (Albania does not purchase any Russian gas currently). By virtue of geography, Western Europe will have ready access to new supplies of North African gas following Arab Spring reforms, as well as unconventional gas potential in Algeria. With a change of political leadership in Italy, it is also worth re-examining whether the Government will be more independent from Russian energy policy, and whether any such changes affect the cozy relationship between Italian and Russian energy and finance companies.

Nabucco West would trace the same route of Nabucco "classic" from the Bulgarian-Turkish border and have a 10 bcm capacity, scalable to 23 bcm pending further gas supplies. In contrast to TAP, Nabucco West would offer direct and immediate diversification to those countries in Central and Southeastern Europe in need of diversification away from Russia, particularly Bulgaria (89 percent dependent on Gazprom), Hungary (57 percent), Romania (23 percent) and Austria (67 percent). Short- and medium-distance interconnectors could reach NATO and EU Members and aspirants in Central Europe who are in even more need of diversification, particularly Slovakia and the Czech Republic (see energy diversification map on page 10). However, as with TAP, those potential interconnections are still theoretical and lack developed financing proposals. Most critically, Nabucco West would introduce international competition in the region that would improve negotiating posture with Russia, reduce the potency of supply disruption threats, and bolster internal stability of NATO allies and friends.

Due to those energy realities, Nabucco West still benefits from the accumulation of political support in Washington and Brussels, including the 2009 Intergovernmental Agreement that remains in force. In order to address a debilitating management structure requiring unanimity among consortium members, Nabucco West shareholders met in late September and agreed to shift to a majority voting rule and offered BP an equity stake in the consortium.[21]

The United States should not be in the business of choosing winners in what are ultimately commercial matters. For this reason, the routing decision made by the Shah Deniz consortium (which will no doubt be influenced by the Government of Azerbaijan) must be commercially attractive to gain financing. Despite claims of marginal economics from some Shah Deniz Consortium members, both pipeline projects can certainly meet that requirement. However, the U.S. Government frequently intervenes in the market when national security interests are at stake, as with anti-terrorism and counter-proliferation sanctions and the vetting of foreign investment through the Committee on Foreign Investment in the United States. Given that no U.S. energy company has a direct stake in Southern Corridor gas supply or pipelines, one of the underappreciated realities is that the principal reason the United States has even become involved in Southern Corridor negotiations is because of U.S. foreign policy, not commercial, interests.

As the two pipelines are currently proposed, Nabucco West is clearly superior to TAP for U.S. foreign policy interests in the region. Although the U.S. interest does not lie with the completion of the Nabucco West pipeline per se, Nabucco West offers the most meaningful advance in two key objectives: prompt delivery of gas to multiple allies in desperate need of diversification and scalability to accommodate larger gas supplies to the region in the future. Without doubt, other allies would benefit from the TAP pipeline but the coercive energy pressures brought by Russia against allies in Central and Southeastern Europe are of an order of magnitude greater. The United States owes it to these allies to speak clearly for that shared interest.

> **Recommendation:** The United States should advocate that Nabucco West be selected as the downstream route of the Southern Corridor, as opposed to wavering between available options. Nabucco West is strategically superior in that it will directly and immediately transport gas to nations in East and Southeast Europe who are most vulnerable to Russian energy coercion and in need of diversification. Although opportunities to use TAP to reach several vulnerable Balkan states exist, those proposals are not part of TAP's current planning or financing.

Supply decisions for the Southern Corridor will be of continued interest to Congress. Thus far, Congress has exempted the Shah Deniz Phase I project from financial sanctions, which have been considered due to the 10 percent share in Shah Deniz held by the

National Iranian Oil Company as a "passive investor," under a narrow statutory exception.[22] However, continuing Congressional support for sanctions exemptions, particularly for Shah Deniz Phase II and ancillary projects, will be based on compelling benefits for U.S. national security interests.

Congress has already indicated its preference that natural gas projects must substantially contribute to Europe's energy security (rather than producing a gas glut in Western Europe) in order to receive an exemption. The 2012 Iran Threat Reduction and Syria Human Rights Act explained that natural gas development projects will be exempted only if they provide Turkey and "other countries in Europe energy security and energy independence from the Government of the Russian Federation."[23] While Shah Deniz Phase II itself may fall under the exemption created for Shah Deniz Phase I, it is unclear whether other infrastructure projects ancillary to Shah Deniz (including pipelines carrying that gas) would be exempt under current law given the potential financial benefit to Iran.

In any case, Congress will inevitably reconsider sanctions in the future, and the standards for exemptions are likely to become more stringent. Thus, although expansion of the Southern Energy Corridor to Europe will advance U.S. interests regardless of whether the Shah Deniz consortium selects TAP or Nabucco West, that benefit will be weighed against the detriment of allowing the project to benefit Iran's state budget. In this respect, it is clear that of the two pipeline proposals currently being discussed, Nabucco West offers the most compelling case for continued exemptions from U.S. financial sanctions because it would directly address the energy insecurity of several NATO allies and provide much-needed competition in Eastern European markets.

> **Recommendation:** The United States should reconsider sanctions against the National Iranian Oil Company's 10 percent share in the Shah Deniz Consortium. Although Shah Deniz Phase I remains exempt, the merits of an exemption for Shah Deniz II gas (and ancillary projects) will, in part, depend on its ultimate destination. In this respect, Nabucco West, or a similarly conceived pipeline, would provide the most compelling case for an exemption of Shah Deniz II gas and related pipelines. By contrast, selection of TAP would weaken the argument that Shah Deniz II and its ancillary projects are of such immense benefit to U.S. security interests that they should trump further sanctions against Iran.

> **Recommendation:** Shah Deniz Consortium members, with the political backing of their home governments, should seek ways to exclude the National Iranian Oil Company's 10 percent share of Shah Deniz. As financial sanctions continue to tighten around Iran, the consortium will be faced with increasing pressure for sanctions due to this Iranian stake, however minor and "passive" Iran's role is in the consortium.

FUTURE GAS SUPPLIES

Turkmenistan, the Trans-Caspian Pipeline, and the "Take our gas at the border" Policy

With the fourth largest conventional natural gas reserves in the world, Turkmenistan could become a major supplier to the Southern Corridor, but a combination of inscrutable leadership, geopolitical pressures, an unattractive investment climate, and distance from consumer markets has hampered progress.

Since taking power in 2006, President Gerbanguly Berdymukhamedov has disappointed many observers who expected him to open up Turkmen society and to more sharply dispense with the eccentricities of his predecessor, Saparmurat Niyazov. However, Turkmenistan has successfully pursued a foreign policy of "positive neutrality," leaving it with almost no political disputes with neighbors in an otherwise tumultuous region, even if this entails keeping foreign diplomats, visitors, and businessmen at arm's length.

The United States has been able to cooperate on important humanitarian and former security related issues with the Turkmenistan Government, and Special Envoy for Eurasian Energy Security Richard Morningstar made substantial headway in building confidence on energy cooperation. However, the basics of broad bilateral diplomatic interchange are still lacking, and more high-level civilian official visits from the United States will be needed to bolster efforts of our diplomats and complement the substantial U.S. military engagement in the region due to Afghanistan. Given Turkmenistan's economic dependence on natural gas and its need for diversification of export markets, energy remains the centerpiece of non-military engagement.

The Turkmen Government operates in a reclusive manner on oil and natural gas issues, which, as nearly every interlocutor agreed, will have to be reformed if Turkmenistan is to achieve its production goals and open new export markets, particularly through the Southern Corridor. With current production capacity of approximately 70 bcm of gas annually, Turkmenistan aims to increase production to 120 bcm by 2015 and 250 bcm by 2030. However, there is wide skepticism that the Government seriously desires to significantly increase production. As one longtime observer wryly noted, "The Turkmen aren't in a hurry to do anything."

Onshore, Turkmenistan possesses vast conventional gas reserves. The Dauletabad field in the southeast has long been under production. Recently documented as the world's second largest conventional gas field, the Galkynysh (formerly known as South Yolatan) field is expected to be the focus of new production. Galkynysh is a high-pressure, high-sulfur, and high-temperature field, ranking among the most challenging in the world.

For capital-intensive new production projects (as would be the case in Turkmenistan), the international oil company (IOC) majors are generally interested in negotiating production sharing (PSA) or joint venture agreements that result in ownership of a share of the gas. The energy majors generally avoid basic service contracts except where they expect future PSAs.[24]

However, Turkmenistan is deeply suspicious of the energy majors and has been steadfast in refusing production sharing agreements or other licensing arrangements that would allow major IOCs to own onshore gas. Instead, the Turkmenistan Government has informed the IOCs to "take our gas at the border," if they want to participate in gas exports. Thus far, optimism for future gas ownership has been insufficient among IOCs, and none operate in Turkmenistan under service contracts.[25] This investment climate will be particularly problematic to the construction of future pipelines from Turkmenistan (discussed further below).

Instead, natural gas production onshore is conducted by nationally-owned Turkmengaz, which engages American and other international companies for expertise and technology under service contracts but retains ownership of all gas for the Turkmenistan Government. The exception is the arrangement offered to the China National Petroleum Company (CNPC) for onshore gas development, reportedly under a 35-year turnkey arrangement, whereby CNPC will build the facilities, commence production, ship gas to China, and then turn operations over to Turkmengaz. This deal is reportedly linked to China's agreement to finance and construct the Central Asia-China gas pipeline to carry gas to China.

Analysts diverge in their opinion as to whether CNPC and Turkmengaz can develop Galkynysh by relying almost exclusively on the assistance of service contractors and eschewing the expertise, technology, and production scale offered by IOCs.[26] Some small- and medium-sized service companies operating in Turkmenistan have indicated that operations in Galkynysh are producing results, although detailed information, particularly from CNPC operations, were confidential.

Whether Turkmenistan reforms its investment climate for onshore natural gas production depends on its actual ambitions for ramping up production. If reports are correct that progress in Galkynysh is occurring (even at a slow pace), that may well suit the modest ambitions of the Turkmenistan Government.[27] Given a long enough time horizon, Turkmengaz will likely be able to acquire the expertise necessary for ongoing yet modest production increases. On the other hand, such a strategy would take longer than the lifespan of the current leadership. Reforms to the investment climate that would allow IOC investment alongside Turkmengaz would not only boost production but would also accelerate domestic expertise gains.

Offshore, Turkmenistan's terms have been closer to international norms, but the reserves have not been sufficiently lucrative to attract IOCs. Only a handful of companies, including RWE (Germany), Dragon Oil (UAE), Petronas (Malaysia), Buried Hill (Canada), Itera (Russia) and Wintershall (Germany), have pursued these offshore arrangements, in some cases to keep a toehold in the Turkmenistan market should the investment climate change.[28] Several other companies have departed due to disappointing offshore discoveries, a frustrating regulatory environment, or a lack of profitable export markets, which, by one account, results in 8–9 bcm of offshore gas being flared annually.

> **Recommendation:** The Government of Turkmenistan should reform domestic energy laws to enable major investments by energy majors in natural gas exploration, production, and transport. The energy majors not only

have advanced technology and expertise to more capably develop Turkmenistan's challenging gas fields, but an energy major's ownership of part of the gas through production sharing agreements will be necessary to make advance sales to privately finance the Trans-Caspian and Turkmenistan-Afghanistan-Pakistan-India (TAPI) pipelines (discussed below).

Recommendation: The Government of Turkmenistan should work with the State Department's Energy Governance and Capacity Initiative, the World Bank, and the Extractive Industries Transparency Initiative, to promote good governance in management of energy resources and revenues. Doing so will help build needed domestic capacity, promote a positive investment climate in Turkmenistan, and will help address suspicion of IOCs.

Turkmenistan has also considered several new export destinations. Historically, Turkmenistan has been highly dependent on Russia as a purchaser of its natural gas through the Central Asian Center pipeline system, giving Moscow potent leverage over Ashgabat. Following a mysterious 2009 pipeline explosion, as well as declining demand in Europe for Russian gas, Russia substantially curtailed imports to 10–11 bcm. Still, Russia reportedly makes payments of approximately $330 million per month to the Turkmenistan Government, a relatively inflated price that Russia retains for political leverage with Turkmenistan.

China has also undertaken concerted energy diplomacy in Ashgabat and imports gas through three pipelines, with a fourth under discussion via Afghanistan. By 2013, Turkmen gas exports to China are expected to reach 30 bcm and 65 bcm in the following years. Iran also imports 12–15 bcm via the Korpezhe-Kurt Kui and Dauletabad-Khangiran pipelines but reportedly pays mostly in goods, not hard currency, due to sanctions. In the near term, trade with Russia is most vital for Ashgabat because it provides hard currency. By contrast, gas sales to China are used largely to pay off loans.

The United States and European allies are currently advocating two major pipeline proposals in Turkmenistan: the Turkmenistan-Afghanistan-Pakistan-India (TAPI) and the Trans-Caspian Pipeline. Despite several substantial challenges, TAPI has important merits and has been a key element of the U.S. Government's "New Silk Road" strategy in South Asia, with the hope that, with pipelines come peace and economic development. Commercially, TAPI offers a link into the growing Indian gas market. The Asian Development Bank (ADB) has been appointed as financial advisor although it has little experience in projects of this magnitude (estimated to exceed $7.6 billion). Turkmenistan has offered 32 bcm for TAPI (5 bcm for Afghanistan; the rest split equally between India and Pakistan), and all TAPI countries except for India have agreed to take equity in the TAPI pipeline. However, Turkmenistan's tariff rates have apparently priced out Afghanistan as a consumer via TAPI, and key players in the discussions seem to lack awareness that employment along the pipeline route will be limited after construction is complete.

Perhaps most critically, pipeline security will remain a monumental challenge. Pakistan and Afghanistan have offered to deploy thousands of security forces dedicated solely to pipeline protection, which would leave forces exposed over hundreds of miles.[29] According to one somewhat fanciful proposal, the Taliban would also be relied upon to contribute its own forces. With strong backing from the U.S. Government, the ADB and the TAPI nations have undertaken a series of roadshows to drum up financing for the project. Several oil majors have been involved in preliminary talks but interest has been uneven following the recent road show. The next step for TAPI will be a Steering Committee meeting to clarify India's equity stake and to discuss tariffs.

Furthermore, Turkmenistan's "take our gas at the border" policy could further hinder progress on TAPI (and the Trans-Caspian Pipeline, discussed below) because it is incongruous with how pipeline projects are privately financed. Leaving aside the question of whether Turkmenistan's modest production can even fill massive new export routes, pipelines constructed by the IOCs (who possess the expertise and capacity) are financed by contracting for advance sales of gas that they are given ownership of via PSAs or joint ventures. The Turkmenistan Government has apparently failed to appreciate the fact that, although its "take our gas at the border" policy may have worked with China due to CNPC's willingness to simply fully finance and construct a gas pipeline, private financing of the TAPI or Trans-Caspian Pipeline will not occur according to this model. State-backed financing or deep internal investment climate reforms in Turkmenistan will be required.

A second, long-standing pipeline concept is the Trans-Caspian Pipeline, which would traverse the Caspian Sea to connect Turkmenistan and Azerbaijan, the key for transporting Turkmen gas to the Southern Corridor. Construction of this pipeline would be relatively simple from a technical point of view, and it could be constructed in a matter of months once initiated. Similar to the financing problems that hamper the TAPI concept, the Trans-Caspian Pipeline would also likely require private-financing by the IOCs. However, given that costs would be dramatically lower than the TAPI pipeline due the shorter trans-Caspian distance, the cost could also be well within range of the Azerbaijani Government and its State Oil Fund (SOFAZ), Turkish companies, project financing by the European Bank for Reconstruction and Development (EBRD), European Investment Bank (EIB), World Bank's International Finance Corporation (IFC), or other international financial institutions, or some combination.

> **Recommendation:** The United States and EU should lead diplomatic efforts to secure project financing for the construction of the Trans-Caspian Pipeline with international lenders, including the EBRD, EIB, IFC, and others.

The principal impediment for the Trans-Caspian Pipeline remains a failure of the Turkmenistan Government to exhibit the necessary political will. Put bluntly, the President of Turkmenistan must decide whether to assert Turkmenistan's independence from Russia.

Several signs of diplomatic progress on the Trans-Caspian Pipeline have been seen in recent years. The Turkmenistan Government has spoken openly of non-Russian gas destinations, and Turkmenistan has initiated construction of an East-West pipeline to take gas from its major eastern gas fields to infrastructure on the Caspian. As high-level U.S. engagement has stalled, the European Union has also become a leading advocate of the Trans-Caspian Pipeline.[30] In September 2011, the Council of the European Union encouraged the opening of discussions with Azerbaijan and Turkmenistan on a trans-Caspian pipeline, and both EU President José Manuel Barroso and EU Energy Commissioner Günther Oettinger have travelled to Ashgabat for discussions.[31] Nonetheless, several years of talks have resulted in scant concrete progress to date, leading to great frustration on both sides. In September 2012, for example, President Berdymukhamedov refused to meet with Commissioner Oettinger on his latest visit to Ashgabat.

The Government of Turkey, too, has begun to play an increasingly pivotal role in talks with the Turkmenistan Government, a welcome prospect given the two nations' warm relations, common Turkic linguistic and cultural roots, and the likelihood of Turkey becoming a major downstream purchaser of Turkmen gas. For example, Turkish Energy Minister Taner Yildiz has participated in discussions in Ashgabat with the European Union and Turkmenistan Government, and the Turkish Government has proposed a joint meeting with the Turkmenistan Government and the European Union in Istanbul in late 2012.

Several specific obstacles will need to be addressed in order to achieve further progress on the Trans-Caspian Pipeline. First, Turkmenistan and negotiating partners will have to adopt a more flexible approach to purchase guarantees. To date, Turkmenistan has demanded that the EU guarantees a purchase of 30 bcm of gas at Turkmenistan's Caspian border, an amount too large for any single European company (or country). Moreover, Turkmenistan itself has not provided confidence that this amount of gas would even be available in the near-term, given its own production uncertainties and lack of domestic investment reform. Unlike visits by Russian or Chinese officials, who do have authority to negotiate substantial gas purchases and the construction of pipelines, EU officials possess no such authority: the EU is neither a downstream purchaser nor does it build pipelines. Although strong EU engagement is welcome, it must be complemented by diplomacy from individual EU Member States and downstream energy majors, who together have authority to make purchase and pipeline agreements. An earlier concept to create a Caspian Development Corporation to guarantee aggregate long-term, high-volume purchases of Turkmen gas is a promising initiative, deserving of more attention.[32]

> **Recommendation:** Turkmenistan and the European Union should be more pragmatic in volume negotiations. The EU should involve more downstream energy purchasers and energy majors in talks with Turkmenistan given that the EU itself does not have the authority to guarantee gas purchases. The Government of Turkmenistan must take a more flexible approach to gas purchases and step back from its requirement of a 30 bcm

purchase guarantee. Turkmenistan's delays in finalizing agreement on a trans-Caspian pipeline means that such large volumes will not be accommodated in the next stage of the Southern Corridor due to capacity constraints in TANAP and SCP.

Recommendation: The European Union should involve more national bilateral European delegations in talks with Turkmenistan. A visit by a high-level delegation from Germany would be particularly helpful because of Germany's position as a large gas consumer and the close affinity for Germany held by Turkmenistan's leadership.

Turkey and Azerbaijan should also play a more constructive and active role. Thus far, Azerbaijan has been lukewarm on trans-Caspian gas trade, due in part to lingering historical distrust between Azerbaijan and Turkmenistan and to lower-cost Turkmen gas that could compete with Azeri offshore gas. However, Azerbaijan could take advantage of Turkmenistan's "take our gas at the border" policy and directly purchase Turkmen gas for resale, thereby enhancing its own position as a regional energy hub (so long as EU competition regulations are not implicated). Moreover, as noted above, Azerbaijan (and Turkey) can provide additional confidence for trans-Caspian gas transit by assuring that sufficient pipeline capacity exists throughout the Southern Corridor for Turkmen supply, both in SCP and TANAP.

Recommendation: Azerbaijan should use its controlling stakes in TANAP and SCP to guarantee access for Turkmenistan gas, as well as future gas from Kazakhstan and other nations, and consider purchasing large quantities of Turkmen gas for onward sales to Turkey and Europe.

An even more appealing option would be for Turkey to purchase Turkmenistan gas and finance trans-Caspian transit infrastructure.[33] Turkey could help meet its booming domestic demand with relatively cheap Turkmen gas, thereby building on the strong Turkish-Turkmen commercial relationship. This option would also cause less aggravation with Moscow given that Turkmen gas would not be in direct competition with Russian gas in significant European markets. Azerbaijan, too, could benefit by sending more of its own gas onward to European markets, instead of to Turkey for its domestic consumption (possibly including the initial 6 bcm of Shah Deniz II gas slated for Turkey).

Recommendation: Turkey should secure contracts to purchase natural gas from Turkmenistan and gain the support of Azerbaijan and private energy companies to allow this gas to transit Azerbaijani energy infrastructure.

The EU and United States will also need to demonstrate greater political backing for the trans-Caspian project. Russia has demonstrated a willingness to exert pressure on Ashgabat by cutting Turkmen gas imports, thus depriving the regime of substantial finances, and at times, has partnered with Iran in opposing further progress on trans-Caspian energy transport. As one interlocutor said, "Russians always have strings they can pull."[34] The Turkmenistan Government will need political support from the

West to contain any fallout in its relationships with Russia and Iran resulting from trans-Caspian gas sales. Unfortunately, Turkmenistan has little reason to gain confidence in the West's support by the example of the Nabucco Consortium, whose strong backing by the EU has yet to translate into success. Perhaps the strongest way that the United States and our allies can demonstrate the efficacy of westward trade is to complete the Southern Corridor from Azerbaijan onward to Europe and guarantee access for Turkmen gas.

In particular, one canard often raised in opposition to a trans-Caspian pipeline is Russian and Iranian objection to any project until the Caspian Sea is demarcated by the five littoral nations (Iran, Azerbaijan, Russia, Kazakhstan, and Turkmenistan). Russia repeatedly refers to an October 2007 agreement saying decisions regarding Caspian energy development would be taken by consensus by all Caspian nations, even though Russia itself violated this provision through bilateral agreements on sea use. Russia, with some irony, also cites environmental implications of a new pipeline. In any case, a trans-Caspian pipeline linking Turkmenistan and Azerbaijan would only cross offshore terrain that would belong to either Turkmenistan or Azerbaijan, and the United States rightly supports the view that proceeding with trans-Caspian energy transport should be these nations' own bilateral prerogative.

> **Recommendation:** The United States, European Union, and Turkey should advocate for a preliminary agreement between Azerbaijan and Turkmenistan to connect Turkmenistan's offshore gas production with Azerbaijan infrastructure. This would allow up to 10 bcm of gas production to find a market in Turkey or Europe in the near-term, providing Turkmenistan with a flavor of westward trade that will begin to build economic relationships and confidence. That relatively small amount of gas could be accommodated in plans for SCP and TANAP and would not require the political fanfare of a major new pipeline.

The need to embolden former Soviet states in making strategic energy decisions is not unfamiliar. Similar problems initially hindered the Baku-Tbilisi-Ceyhan (BTC) oil pipeline, but a coalition of support built by the EU, the United States, and a handful of energy majors helped push the project through. A similar coalition will have to be built around trans-Caspian gas transit. Russia should be invited to play a constructive role in these talks, and its response will be indicative of whether it is a good faith partner of Turkmenistan or has ulterior motives in preventing Turkmenistan's energy development according to its sovereign interests.

> **Recommendation:** Over the long-term, the United States, Turkey, and European Union should encourage negotiation of an Intergovernmental Agreement for the Trans-Caspian Pipeline. Russia, too, could be invited to play a constructive role in these talks.

> **Recommendation:** The United States should ensure that senior U.S. civilian visits to Turkmenistan occur more

frequently to indicate high-level political support for trans-Caspian shipments of Turkmen gas.

In light of the years of work that have gone into moving forward on Nabucco, TANAP, and expansion of the South Caucasus Pipeline, it is unlikely that political or financial capital for any additional major new projects or expansions of either SCP or TANAP will be forthcoming in the short-term. Moreover, the European gas market could change significantly in the coming decades, particularly if domestic shale reserves are exploited. Therefore, the window for Turkmenistan to participate in the next phase of the Southern Corridor is quickly closing.

Iraq, Kazakhstan, and the Eastern Mediterranean: Future Supplies in Need of Policy Attention

Although Turkmenistan possesses the most potential as a future supplier to the Southern Corridor, the United States should dedicate more attention to cultivating additional gas sources for the next phase of development, including Iraq, Kazakhstan, and in the Eastern Mediterranean.

In 2009, Iraqi Prime Minister Nouri al-Maliki attended the signing of the Nabucco Pipeline Intergovernmental Agreement in Ankara and stated that Iraq could contribute up to 15 bcm to the Southern Corridor, raising hopes that Iraq, in possession of the world's tenth largest conventional natural gas reserves, was on its way to become a major supplier to Europe. Since then, little progress has been made towards this goal due to deep disagreements on energy revenue sharing between the central government in Baghdad and the Kurdistan Regional Government (KRG), as well as flagging progress on domestic electrification and investment in domestic gas infrastructure.

Currently, energy revenues from the KRG are channeled to the central budget in Baghdad, which then distributes proceeds to the KRG and international energy companies operating in Kurdistan. However, this arrangement has led to numerous disputes involving delays by Baghdad in making the distributions. Furthermore, several drafts of a comprehensive national oil and gas law are under consideration in Baghdad, and a September 2012 Baghdad-KRG agreement included a provision to set up a six-member committee to review various drafts and decide which version to send to the Council of Representatives for consideration. The first meeting planned for mid-October 2012 failed to occur. Intransigence at the national level has caused impatience in KRG and with international energy companies, several of which (including ExxonMobil, Chevron, Gazprom and Total) have negotiated independent exploration deals with the KRG, only to become frozen out of negotiations with the central government.[35] In light of these disputes, analysts do not expect Iraq to become a natural gas exporter until at least 2017.

U.S. policy currently supports a national agreement on oil and gas revenues prior to exports from Kurdish regions. Given that higher value oil is concentrated in the south, this is likely to be a net economic benefit to the KRG. However, U.S. policy on this matter should be under constant review to ensure that internal political disputes are not unduly hindering projects beneficial for Iraq, regional stability, and U.S. private investment. The Iraqi energy situation is yet another reason why concerted U.S. energy diplomacy will be required in the coming years.

By virtue of geography and geology, Turkmenistan would be the anchor of trans-Caspian energy trade, but it is not the only player. Kazakhstan is already a participant in the Southern Corridor, shipping oil across the Caspian by barge to Baku to connect to the BTC oil pipeline. Given that the BTC pipeline is operating under capacity, Kazakhstan's participation in the BTC pipeline could be increased in the future. By contrast, Kazakhstan's 1.9 tcm of natural gas reserves remain relatively underdeveloped as a commodity, frequently being flared or re-injected for enhanced oil recovery. To date, Kazakh officials have given mixed signals about natural gas participation in the Southern Corridor, at times citing the need for a Caspian demarcation agreement. The United States should continue to bring the Kazakhstan Government into discussions on the Southern Corridor given future potential participation.

Finally, the United States should enhance engagement in energy diplomacy on the development and interconnection of energy resources off the Turkish coast and in the Eastern Mediterranean.

In 2007, the Greek-Cypriot Government approved a license for offshore exploration in waters that are disputed by Turkish-Cypriot authorities. After exploration commenced in September 2011, the Turkish Government sent military vessels to the area as a warning and facilitated a separate offshore exploration arrangement in what is claimed to be the Turkish-Cypriot exclusive economic zone. In light of discussions between Greek-Cypriot authorities and Israel on energy transport and a future pipeline, tensions could eventually flare again.

Israel itself has discovered large offshore natural gas reserves, and the U.S. Geological Survey has estimated 3.5 bcm of technically recoverable reserves in the Levant Basin. Owing to abundant access to capital and strong rule-of-law protections, Israel may be the most likely source of additional gas flows from the Eastern Mediterranean. While current conditions in the region are not conducive to quick progress, increased natural gas trade within the region and in connection with the Southern Corridor can promote long-term economic development and stability. The United States should play an active role in fostering regional dialogue on energy and related demarcation issues, including track-two discussions between Israel and Turkey on energy trade.

U.S. LNG: Putting Molecules Where Our Mouth Is

The United States, too, is in possession of resources that could directly contribute to European energy security. In 2009, the United States overtook Russia as the world's largest natural gas producer due to vast unconventional reserves. At current U.S. consumption rates, the United States possesses perhaps a century of gas supply. This development has caused U.S. natural gas prices to fall to nearly a half to a third of gas prices in other key European and Asian markets[36] and has prompted numerous applications for export licenses of U.S. liquefied natural gas (LNG) exports.

Pursuant to Section 3 of the Natural Gas Act,[39] gas exports are subject to approval by the Department of Energy's Office of Fossil Energy and the Federal Energy Regulatory Commission, which must certify that a particular export is in the U.S. public interest. For destination countries with which the United States has a free trade agreement, a presumption is created that the export is in the public interest, and the license is automatic. For non-free trade agreement nations, a study must be conducted to determine the public interest, entailing a notice and comment period.

Several companies have submitted applications to retrofit U.S. LNG import terminals for regasification and export; to construct new LNG export terminals; and to export cryogenic natural gas to Latin America by rail and ship. After approving one application, the Obama Administration deferred others until at least 2013, pending further study completed in December 2012.

U.S. shale gas reserves are already transforming European natural gas markets since LNG previously destined for the United States has now been made available for Europe. The United States can do much more to both use LNG exports to benefit NATO allies facing energy insecurity in Europe and to promote economic growth in the United States.

Turkey currently relies on Iran for 20 percent of its gas imports, which could come under increased pressure when the European Council's decision of October 15, 2012 to prohibit the "purchase, import or transport of natural gas from Iran" is implemented. Moreover, several allies and partners in Central and Southeastern Europe (Bulgaria, Croatia, Hungary, Greece, the Czech Republic, and Moldova) will see their long-term contracts with Gazprom expire before 2017, leaving a potential gas import gap until Shah Deniz II gas comes online in that year. For these countries, targeted U.S. LNG exports, along with infrastructure investment and other policy responses, could help alleviate energy insecurity. It is possible that several other NATO allies and partners may opt for U.S. natural gas imports (and even paying a reliability premium for them) if the opportunity existed.

Meanwhile, European nations are ramping up capacity to import LNG. At present, Europe imports LNG primarily from Algeria, Egypt, Oman, and Qatar to meet about 26 percent of its gas needs, due in large part to a lack of LNG import terminals, which are mostly located in Western Europe,[38] as well as underdeveloped onward interconnectors and storage capacity in Europe. However, numerous European countries, some with financing from the European Bank for Reconstruction and Development (EBRD), are considering construction of additional LNG import terminals, including Bulgaria, Croatia, Estonia, Lithuania, Latvia, Poland, Romania, Turkey, and Ukraine.

In light of these dynamics, the United States is well-positioned to become a strategic energy supplier of LNG to NATO allies in need of diversification. Senator Lugar has introduced the LNG for NATO Act to achieve this objective (see Appendix IV for the text of the legislation). This Act would not direct supply, which should remain exclusively the function of private industry. Instead, the Act would place NATO allies on equal footing as other free trade partners with respect to access to U.S. natural gas trade. Through market forces, NATO allies will be more secure and the alliance will be stronger. While the U.S. Congress will no doubt continue to debate full liberalization of natural gas exports, the LNG for NATO Act follows other precedents for narrowly tailored exceptions to our export licensing regime.

Recommendation: The U.S. Congress should pass the Liquefied Natural Gas for NATO Act, which would amend Section 3 the Natural Gas Act to create a presumption that licenses to export U.S. natural gas to NATO allies is in the U.S. public interest, giving NATO allies the same preferential treatment enjoyed by free trade partners. Specifically, swift passage of this Act will make gas export licenses automatic for Turkey, which relies on Iran for 20 percent of its gas demand, and those NATO countries, whose long-term gas contracts with Gazprom expire in the next five years, in advance of Shah Deniz II gas coming online through the Southern Corridor.

Recommendation: The United States and European Union should encourage the Overseas Private Investment Corporation, U.S. Trade and Development Agency, the European Bank for Reconstruction and Development, and the European Investment Bank to facilitate financing for the construction of LNG import terminals in Europe, particularly on the territory of NATO allies in need of diversification. U.S. assistance should also be provided to plan alternative gas routes, storage capacity, interconnectors, and power generation options.

NOTES:

[1] The authors thank Michael Ratner of the Congressional Research Service.

[2] The authors recommend "Europe's Energy Security: Options and Challenges for Natural Gas Supply Diversification" by Michael Ratner, Paul Belkin, Jim Nichol, and Steven Woehrel of the *Congressional Research Service* for further data and analysis.

[3] The State Department Unconventional Gas Technical Engagement Program plays an important role in providing information and enabling policies for shale gas development.

[4] Because South Stream would transit EU territory, it would have to comply with several onerous EU regulations. First, South Stream would be required to provide full access to third-party gas in all distribution and transmission infrastructure in a competitive manner, unless an exemption is granted. Exemptions are granted only where the investment "enhances competition in gas supply" and "security of supply" and "is not detrimental to competition or the effective functioning of the internal gas market." See European Council Directive 2009/73/EC. Given the EU's recent anti-competition investigations of Gazprom, such exemptions may not be forthcoming. Second, Russia would have to officially provide design, routing, and construction information to the EU, none of which, according to EU officials, has occurred. Finally, several energy analysts note that Russia may not have sufficient gas to even supply South Stream in an economical manner.

[5] The U.S. Energy Information Administration estimates that Poland, Ukraine, Lithuania, Romania, Bulgaria and Hungary possess over 252 trillion cubic feet of technically recoverable shale gas. Poland has the most shale potential in Europe and is expected to produce its first commercial shale gas in 2014 but would not achieve energy independence until 2035. ExxonMobil and Talisman Energy have both recently pulled out of Polish shale gas exploration.

[6] Also, Russia historically been willing to pay a significant premium for gas produced by other Caspian nations in order to maintain economic leverage and to thwart significant gas sales to Europe via a new southern corridor. Since 2009, Russia has purchased approximately 1 bcma of Azerbaijani gas through the Gazi-Magomed-Mozdok pipeline. Azerbaijan also conducts gas swaps with Iran to supply its exclave of Nakhchivan.

[7] Shah Deniz consortium shareholders include Britain's BP (25.5 percent), Norway's Statoil (25.5 percent), Azerbaijan's SOCAR (10 percent), France's Total S.A. (10 percent), Russia's Lukoil in partnership with Italy's Eni (10 percent), Iran's NIOC (10 percent), and Turkey's TPAO (9 percent). The participation of Iran's NIOC has threatened the consortium's political viability in the midst of tightening U.S. and EU sanctions against Iranian entities. The United States and European Union have repeatedly exempted Shah Deniz from Iran-related sanctions given NIOC's role as a "passive" investor.

[8] The International Energy Agency's *World Energy Outlook 2012,* for example, estimates 44 bcm in 2030.

[9] BP currently operates oil extraction in the ACG field on behalf of the Azerbaijan International Operating Company (AIOC), which includes Chevron, Statoil, Turkey's TPAO, ExxonMobil, SOCAR, Japan's INPEX and Itochu, and Hess. Significant capital investments would be required to increase production under the production sharing agreement that runs until 2024. This turmoil could result in delays for the tender of an ACG Deep PSA for gas development. To date, it is unclear even if current ACG partners would operate ACG Deep.

[10] Initially, the dispute centered on whether a new pipeline would be built (favored by SOCAR) or whether the SCP would be upgraded (favored by BP). Azerbaijani President Ilham Aliyev intervened and chose the latter. Consequently, the dispute centered on the size of the upgraded pipeline. SOCAR favored a 56-inch pipeline through the Caucasus mountains in Georgia (requiring lower compression costs but raising construction costs), whereas BP favored a smaller but scalable 42-inch pipeline over the mountains (reportedly requiring as much as 1–2 bcm to be consumed by additional compressors). Both sides agreed, however, that the SCP upgrade must be scalable to accommodate all future Caspian gas, including potential Turkmen throughput, up to 63 bcm (25 bcm of which Shah Deniz I and II provide).

[11] *BP Statistical Review of World Energy 2012.*

[12] The U.S. State Department's Export Control and Border Security (EXBS) and U.S. Defense Department's Section 1206 train-and-equip programs have also provided smaller boats and zodiacs, respectively, to Azerbaijani coastal authorities.

[13] For example, twice in 2008, Azerbaijan's coast guard intercepted vessels, which were conducting seismic exploration in offshore fields under contract from Turkmenistan. One involved a Russian state vessel hired by Canada's Buried Hill and the other involved a ship hired by Malaysia's Petronas. In 2011, the Russian and Kazakh military conducted a naval exercise to thwart aggression near Kazakhstan's offshore platforms; Iran was allegedly the potential aggressor nation. In the past, Iran has also moved its own drilling rigs into waters disputed by Azerbaijan. More commonly, fishing vessels inadvertently float into the two-mile exclusion zones around Azeri offshore platforms, still requiring a response by coast guard authorities.

[14] Although not a signatory, the United States gave its full support for the Nabucco treaty and was represented at the signing ceremony in Ankara by Senator Richard Lugar and Special Envoy Richard Morningstar, demonstrating bipartisan support from both the Congressional and Executive branches.

[15] The Nabucco consortium currently consists of six energy companies: Germany's RWE, Austria's OMV, Hungary's OML, Romania's Transgaz, Bulgaria's Bulgargaz, and Turkey's BOTAS.

[16] While this concern is legitimate given that BOTAS currently has no capacity for extra gas, Turkish officials assured that TANAP would be completed on time; within Turkey, there is apparently disagreement on whether an additional BOTAS upgrade will occur in any case, which Turkey would have to fully finance absent a new round of negotiations with other stakeholders.

[17] European Union Council Decision 2012/635/CFSP, October 15, 2012. To date, the EU and United States have pursued sanctions against Iranian oil exports, which far surpass its minimal gas exports.

[18] The shareholders included Italy's Edison, Greece's DEPA, and Turkey's BOTAS. Like TAP, it was to have a capacity of 10 bcm and would stretch from Turkey through Greece to Italy.

[19] SEEP was BP's own pipeline proposal that would have relied on existing infrastructure from Azerbaijan through Turkey. SEEP would have begun at the Bulgarian-Turkish border and stretched to Hungary, consisting of both upgraded existing pipelines and additional new segments. From Hungary, additional interconnectors were envisioned to Austria and other parts of Central Europe. SEEP would have had a capacity of 10 bcm.

[20] One proposal (not part of the official TAP proposal) would be the so-called Ionian-Adriatic Pipeline northward from Albania, through Montenegro, Bosnia, and Croatia.

[21] However, the scaled-back version of Nabucco West likely will cause its lead partner, RWE, to sell its stake in the project given RWE's requirement that 5 bcm arrives for delivery into its own system. Reportedly, BP may acquire a stake in the consortium.

[22] *See* Section 201 of the Iran Threat Reduction and Syria Human Rights Act of 2012, P.L. 111–158.

[23] *See* Section 603 of the Iran Threat Reduction and Syria Human Rights Act of 2012, P.L. 111–158. "Nothing in this Act or the amendments made by this Act shall apply to any activity relating to a project: (1) for the development of natural gas and the construction and operation of a pipeline to transport natural gas from Azerbaijan to Turkey and Europe; (2) that provides to *Turkey and countries in Europe energy security and energy independence from the Government of the Russian Federation* [emphasis added] and other governments with jurisdiction over persons subject to sanctions imposed under this Act or amendments made by this Act; and (3) that was initiated before the date of the enactment of this Act pursuant to a production-sharing agreement, or an ancillary agreement necessary to further a production sharing agreement, entered into with, or a license granted by, the government of a country other than Iran before such date of enactment."

[24] This exception has been exercised by several energy majors in Iraq given vast potential for future PSAs.

[25] Several energy majors maintain offices in Turkmenistan. Chevron also runs major development projects with USAID, providing 17 percent of USAID's budget in Turkmenistan, focusing on youth centers and junior achievement projects.

[26] For example, at the time of the SFRC visit, a row continued between the Turkmenistan Government and one of its service contractors due to drilling failures.

[27] With only a population of 5 million, the Turkmenistan Government appears to be satisfied with modestly rising energy revenues. The Government only requires a reported $10 million to finance its construction boom in Ashgabat. Moreover, as one interlocutor noted, the concept of present value of money (i.e., a dollar today is worth more than a dollar tomorrow) does not exist in Turkmenistan.

[28] Turkmen suspicion of even smaller companies was heightened after Burren Energy, an offshore operator, sold its shares to Italy's ENI without the Turkmenistan Government's consent.

[29] That is, unless they are concentrated around compressor stations, which would, however, not prevent disruptions to the pipeline itself, as has been the case in pipeline attacks in Turkey and elsewhere.

[30] Commissioner Oettinger at the time of this decision noted that "Europe is now speaking with one voice. The trans-Caspian pipeline is a major project in the Southern Corridor to bring new gas to Europe."

[31] The European Union reportedly will also soon open a mission in Ashgabat.

[32] The latest report of the Caspian Development Corporation can be accessed at: http://ec.europa.eu/energy/infrastructure/studies/doc/2010_12_report_cdc_final_implementation.pdf.

[33] As long as the Government of Iran pursues a nuclear weapons program, it would be unwise for Turkey to consider transiting Turkmen gas via Iran.

[34] For example, in response to intensified talks on trans-Caspian gas shipments from Iran, Russian Duma Vice Speaker is reported to have warned of an impending "Arab Spring" in Turkmenistan; Russian non-governmental outfits have warned Turkmenistan that it may suffer the same fate as Georgia in 2008 if talks with the EU continue.

[35] ExxonMobil is reportedly pulling out of its project in southern Iraq, seeking to sell its 60 percent stake in a service agreement to develop the massive West Qurna-1 oil field in southern Iraq.

[36] The average price in the United States is $3.18/MBtu; the price in the United Kingdom is $10.35/Mbtu; the price in Germany is $10.82/Mbtu; and the price in Japan is nearly $16.84/Mbtu, as of December 8, 2012, *Bloomberg New Energy Finance.*

[37] 15 U.S.C. §717b

[38] As of May 2012, Europe possessed 22 LNG terminals (import and export) with the following breakdown: Belgium (1); UK (4); France (3); Italy (2); Greece (1), Turkey (2); Portugal (1); Spain (6); Netherlands (1); Sweden (1); and Norway (1).

APPENDIXES

Appendix I

The Lugar Energy Report, "Lugar Travels Pipeline Route," August 2006

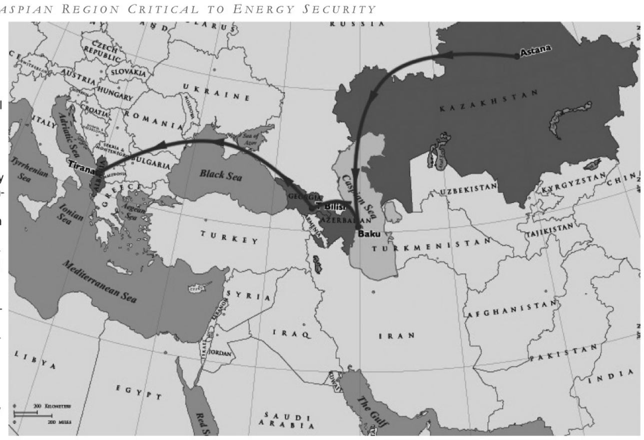
August 2006

THE LUGAR ENERGY REPORT

ASTANA | BAKU | TBILISI | TIRANA

LUGAR TRAVELS PIPELINE ROUTE

SENATOR: CASPIAN REGION CRITICAL TO ENERGY SECURITY



Senator Lugar's visit to the Caspian region followed the path of oil and gas and allowed him first-hand examination of the challenges and opportunities we face to secure our energy resources.

U.S. Sen. Dick Lugar furthered his focus on energy security in August by tracing the oil and natural gas exports from Central Asia, across the Caspian Sea and overland to Turkey and the Mediterranean Sea. Senator Lugar met with heads of state and industry leaders and examined key energy infrastructure in Kazakhstan, Azerbaijan and Georgia. These three countries anchor an area of the world critical to promoting international energy security by diversifying supplies and export routes to avoid the Middle East and Russia.

"Great expense and strategic planning have gone into moving the vast petroleum reserves from Central Asia to the rest of the world. This narrow petroleum corridor operates with Russia to the north, and Iran, Iraq and Syria to the south. It represents the extent the world is reaching for oil and natural gas and all the pitfalls that threaten that flow," Lugar said.

THREE THEMES

Three themes dominated Lugar's discussions of energy security with regional leaders:

1. The continued development of oil and gas production in the region and importance of opening pipeline routes to U.S., European and world markets that avoid the Middle East and Russia. While the opening of the Baku-Tbilisi-Ceyhan (BTC) oil pipeline adds to the substantial progress made over recent years, more is needed in the decades ahead for the mutual benefit of the region, the world and American consumers.

2. Wise and transparent governance that promotes democratic reform remains a critical priority for the region. As exports of oil and natural gas expand in the region, leaders must focus the revenue surges on economic development and avoid the temptation of increased authoritarianism and benefits for elites.

3. Russian influence remains a major consideration for each country as it develops resources and inter-regional relationships and as the U.S. increases its cooperation with governments in the region. Diversifying export routes from Central Asia is a key element of U.S. interests in the region.

Continued on the next page

Inside this issue:

SENATOR: REGION CRITICAL TO ENERGY SECURITY

... continued from page one

KAZAKHSTAN

In meetings with government and private industry leaders in Astana, Kazakhstan, Senator Lugar discussed increasing oil and gas production and expanding and creating new export routes through partnerships between Kazakhstan and Azerbaijan. With anywhere from 9 to 40 billion barrels in oil reserves and 67 to 106 trillion cubic feet of natural gas, Kazakhstan has the potential to become a large source of energy exports for world markets and provide Europe and the U.S. with an important new energy supply.

Large-scale expansion of natural gas and oil exports will require significant new investment in infrastructure at the well and in pipelines for delivery, according to private industry leaders in the region. Even as options for increasing existing export routes through Russia are pursued, it is a strategic priority of the U.S. to work with the Kazakh government and private industry to open westward export routes across the Caspian and overland through Azerbaijan, Georgia and Turkey – avoiding territory subject to Russian or Iranian control.

The governments of Kazakhstan and Azerbaijan recently made progress in opening this westward supply route by signing an inter-governmental agreement to allow exports of Kazakh oil through Azerbaijan and into the BTC pipeline. This is an important milestone in relations between the countries and for international energy security.

As Senator Lugar discussed with Kazakhstan's energy minister, this agreement is a first step and much more work remains before substantial oil exports leave the country. Under the current arrangements, oil exports will travel by tanker across the Caspian Sea and enter the pipeline near Baku, Azerbaijan. As the agreements progress, serious consideration should be given to the economic and strategic aspects in constructing oil and gas pipelines across the Caspian Sea to connect these two countries. Likewise, concerted negotiations for agreements on exporting natural gas should be pursued.

AZERBAIJAN

Traveling from Astana, Kazakhstan, to Baku, Azerbaijan, Senator Lugar met with President Aliyev and other key government and private sector leaders. Senator Lugar and President Aliyev discussed Azerbaijan's progress in increasing its energy exports, plans for transparent governance of oil and gas revenues and efforts to resist external pressure. Senator Lugar saw firsthand the opportunities and challenges of increased production on a visit to a BP-run drilling platform in the Caspian Sea.

Running 1,100 miles from the Caspian Sea to the Mediterranean with a carrying capacity of one million barrels of oil per day, the BTC pipeline began transporting oil in June 2006. Oil carried in this pipeline is an important contribution to meeting surging global demand, yet the greater value is that it opens up a direct export corridor from the Caspian to the rest of the world. The U.S. government has strongly supported the construction of this vital pipeline.

Senator Lugar also discussed the development of the South Caucasus Pipeline (SCP) with Azeri and Georgian officials, which will eventually carry natural gas from the Caspian to a distribution hub in Erzurum, Turkey. While the Azeri and Georgian sections of the SCP are expected to come into operation soon, the section running through Turkey is behind schedule. With the world's largest natural gas reserves contained in Russia and Iran, opening an alternative source of natural gas in the region is an important diversification to enhance the security of our supply.

As Azerbaijan's exports have increased, it is reaping huge new increases in income. One analysis has estimated that by 2010, Azerbaijan could receive up to $20 billion in new revenue, more than double its 2004 gross domestic product.

In several countries around the world, the revenue from oil exports has not reached the country's residents. Oil can be a source of conflict and corruption, and revenues can be diverted to support terrorism. Senator Lugar and President Aliyev discussed at length the management of new oil revenues and their relation to democratic progress in Azerbaijan. Ensuring transparency and promotion of development are stated priorities of President Aliyev, and Senator Lugar reaffirmed the need to make clear and strong progress toward these goals.

GEORGIA

Senator Lugar continued his trip westward from Azerbaijan to Georgia as he traced the path of the BTC pipeline. Senator Lugar viewed the BTC pipeline route and a pumping station via helicopter. The Georgian government has increased its security services to protect pipelines running through its country, and as larger quantities of oil and eventually gas transverse the country, security will be even more important.

Having virtually no oil and few natural gas reserves, Georgia relies heavily on imports from Russia. With natural gas supply contracts from Russia being renegotiated and Russia's intention to demand higher prices, the Georgian government continues its efforts to prepare contingency plans and improve the energy efficiency of its economy. It needs to continue to work with Azerbaijan to increase trade in energy and to diversify its fuels sources. Senator Lugar reaffirmed the United States' commitment to work with Georgia in its efforts for energy security.

Senator Lugar speaks to the media at a military training center near Sachkhere, Georgia

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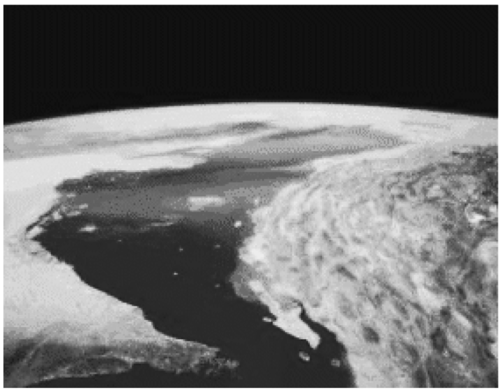
After returning from the trip, Senator Lugar spoke about the Caspian Sea region in the keynote address to the Richard G. Lugar-Purdue University Summit on Energy Security: "U.S. policy toward the region faces a difficult balance of strengthening our energy security relationships in the region, promoting democratic and human rights ideals, eliminating dangerous weapons, and, all the while, continuing to foster a productive relationship with Russia, which has great interest in the region. This balance is both difficult and necessary, but it is possible."

The United States must make the strategic choice to continue to expand energy cooperation with these countries as it promotes wider foreign policy concerns of countering weapons proliferation, promoting human rights and supporting democratic reform in the region.

CHOKEPOINTS IN WORLDWIDE OIL TRANSIT

Oil production is a multi-step process; it must be extracted from the ground, distributed via pipeline or tanker and refined into useful products (such as gasoline, fuel oil, propane, etc.). Pipelines are the ideal mode of transport for transcontinental oil because of the convenience and low cost, while tankers most often carry oil between continents. At any given time, about half the world's daily oil supply is in transit in a tanker. In short, the world's oil dependence is facilitated by a complex delivery system, which, if disrupted, could dramatically impair the global economy.



Satellite photo of the Strait of Hormuz.

Oil supplies are particularly vulnerable at specific geographical "chokepoints" en route to their final destination. Maritime chokepoints are narrow straights between large bodies of water that are critically important to the world oil market because of the large quantities of oil that pass through them, but that could be easily damaged by terrorist attack, natural disaster or accident. By far, the most important maritime chokepoint is the Strait of Hormuz, located between Iran and Oman, joining the Persian Gulf with the Gulf of Oman and the Indian Ocean. More than 17 million barrels of oil (twenty percent of the world's oil supply) pass through this strait alone. Interruptions in this strait would delay oil shipments to the United States, Western Europe and Japan.

In addition to the Strait of Hormuz, the world's most vulnerable waterways include: the Strait of Malacca, facilitating oil coming from the Persian Gulf to Asia; the Bal al Mandeb Strait from the Arabian Sea to the Red Sea; the Panama Canal, connecting the Atlantic and Pacific oceans; the Suez Canal connecting the Red Sea with the Mediterranean Sea and European markets; and the Turkish Bosporus Straits connecting oil from Russia and the Caspian region to the rest of the world.

Landlocked pathways that move huge quantities of oil include: the Panama pipeline in Central America; the Sumed pipeline in Egypt; the Druzhba pipeline in Russia; the Baku-Tbilisi-Ceyhan pipeline running through Azerbaijan, Georgia and Turkey; and the Caspian Pipeline Consortium, carrying oil from Kazakhstan across Russia. With each of these pipelines transporting up to 3 million barrels of oil per day, even temporary displacement or damage would cause noticeable delays, shortages and price increases. Transcontinental pipelines that span the territory of many different countries or regions are more vulnerable than self-contained pipelines. Nevertheless, even pipelines delivering oil from one part of a nation to another could be susceptible to terrorism and accidents, as the corrosion damage sustained by America's Alaskan pipeline demonstrated.

Experts at a March 30, 2006, Senate Foreign Relations Committee hearing estimated that the hidden costs of ensuring access to these chokepoints totals $304.9 billion annually, or the equivalent of adding $3.68 to the price of a gallon of gasoline imported from the Persian Gulf. They further testified that oil supply disruptions could cause America's gross national product to decline by 5 percent or more, causing a severe recession, and noted that oil supply disruptions have preceded nine of the last ten recessions in the U.S.

THE PRICE OF DEPENDENCE

The United States imports approximately 60 percent of its oil and approximately 18 percent of its natural gas, and Senator Lugar has warned about the possibility of blackmail by energy rich countries.

The materialization of this threat could shift the focus of the energy problem from American wallets to our well-being, as it did for Ukraine earlier this year.

In January 2006, the Russian government refused to provide a portion of natural gas to Ukraine following a dispute over price increases with its pro-Western government. The cutoff also led to sharp drops in gas supplies to European countries that depend on natural gas moving through Ukrainian pipelines, and Russia charged Ukraine with diverting gas intended for Austria, Italy, France, Hungary, and other European nations. Eventually, the confrontation was resolved with a near doubling of the price of natural gas sold by Russia to Ukraine. In contrast, Russia did not inflict such a price increase on Belarus, considered by Moscow to be a good partner.

The episode between Ukraine and Russia underscores the vulnerability of consumer nations to their energy suppliers. A complete natural gas shutdown to Ukraine in the middle of winter could have caused death and economic loss on the scale of a military attack. Even though energy is not associated with conventional warfare, it is becoming the weapon of choice for those who possess its resources.

The Six Threats of Energy Dependence

In August 2005, Senator Lugar undertook a diplomatic mission to Libya to discuss Libya's hopeful return to the international mainstream. Sitting under a tent in the middle of a desert, he discussed with Muammar Qaddafi and other Libyan officials a range of pressing issues, from re-opening the U.S. embassy in Tripoli to dismantlement of Libyan weapons. Yet it was in the Corinthia Hotel in Tripoli where Senator Lugar observed a worrisome new trend in world power politics. The hotel was full of representatives from Chinese, Indian and Western oil companies who had traveled to Libya to stake out drilling or refining options for every pool of oil that the government might make available.

The Corinthia Hotel was a microcosm of the new reality of geopolitics. As global demand for energy burgeons and resources become more scarce and tightly controlled by foreign governments, America's dependence on oil will become a larger threat to U.S. national security. As Senator Lugar stated in a March 2006 speech at the Brookings Institution in Washington, D.C., "no one who is honestly assessing the decline of American leverage around the world due to our energy dependence can fail to see that energy is the albatross of U.S. national security."

To articulate this point, Senator Lugar has identified six threats to U.S. national security and global prosperity posed by energy dependence:

First, **oil is vulnerable to supply disruption** as a result of natural disasters, wars and terrorist attacks. Within the last year, the international flow of oil has been disrupted by hurricanes, unrest in Nigeria and continued sabotage in Iraq. In late February 2006, terrorists penetrated the outer defenses of Saudi Arabia's largest oil processing facility with car bombs before being stopped. Al-Qaeda and other terrorist organizations have openly declared their intent to attack oil facilities to inflict pain on Western economies. The price shocks felt by all Americans after Hurricanes Katrina and Rita could pale in comparison to a price spike that would result from a successful terrorist attack.

Second, worldwide **oil and natural gas reserves are becoming more limited** at the same time that there is increasing demand. In the short term, this will make oil even more expensive. In the long run we will face the prospect that the world's supply of oil may not be abundant and accessible enough to support continued economic growth in both the industrialized West and in large rapidly growing economies. Foreign governments control 79% of global oil reserves today. There is no guarantee that they will be willing or able to devote the resources necessary to increase production capacity to meet growing demand. As we approach the point where the world's oil-hungry economies are competing for insufficient supplies of energy, oil will become an even stronger magnet for conflict.

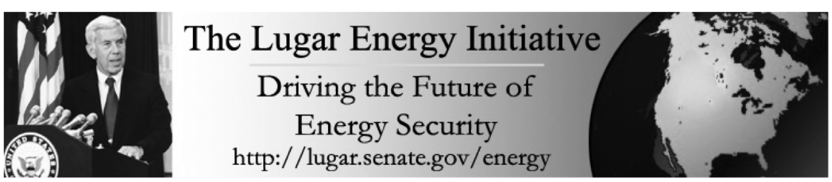
Third, the **use of energy as an overt weapon** by producing nations is not a theoretical threat of the future; it is happening now. Adversarial regimes from Venezuela, to Iran, to Russia are using energy supplies as leverage against their neighbors. We are used to thinking in terms of conventional warfare between nations, but energy is becoming a weapon of choice for those who possess its resources. Nations experiencing a cutoff of energy supplies, or even the threat of a cutoff, may become desperate, increasing the chances of armed conflict, terrorism and economic collapse.

Fourth, the oil and natural gas revenues flowing to authoritarian regimes often **increase corruption in those countries and hurt democratic reform** by allowing regimes to insulate themselves from international pressure and the aspirations of their own peoples. We are transferring hundreds of billions of dollars each year to some of the least accountable regimes in the world. In many oil rich nations, oil wealth has done little for the people, while ensuring less reform, less democracy, fewer free market activities, and further enrichment of elites. Some oil-rich nations are using this money to invest abroad in terrorism, instability or demagogic appeals to populism.

Fifth, the threat of **global climate change** has been made worse by inefficient and unclean use of non-renewable energy like oil. In the long run this could bring drought, famine, disease, and mass migration. Responses by governments struggling to respond to climate change-induced disaster could lead to conflict and instability.

Sixth, dependence on **oil increases instability and undermines development in much of the developing world**. Poor countries are hit hard by rising energy costs, which often cancel the benefits of foreign assistance. Without diversification of energy supplies emphasizing environmentally friendly and abundant energy sources in most developing countries, the national incomes of energy poor nations will remain depressed with negative consequences for stability, development, disease eradication, and efforts to combat the root causes of terrorism.

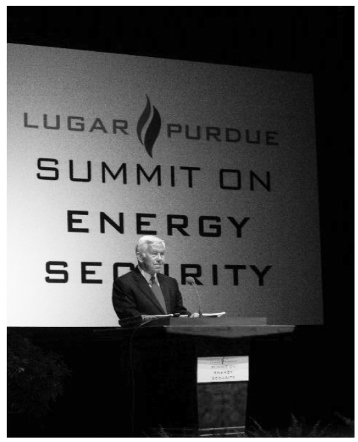
Each threat poses unique challenges to our national security, and all are aggravated by our own dependence on oil. U.S. dependence on fossil fuels and their growing scarcity worldwide have already created conditions that are threatening our security and prosperity and undermining international stability. In the absence of revolutionary changes in energy policy, we risk multiple disasters for our country that will constrain living standards, undermine our foreign policy goals and leave Americans highly vulnerable to the machinations of rogue states.



LUGAR HOSTS ENERGY SUMMIT

On Tuesday, August 29, 2006, Senator Lugar partnered with Purdue University to host the Richard G. Lugar-Purdue University Summit on Energy Security in West Lafayette, Indiana. Approximately 1,000 people attended the summit, which brought together national leaders from government, business, academia, and various energy-related fields to consider prospects for sources of liquid fuels beyond oil.

In a joint statement, Senator Lugar and Purdue President Martin Jischke said, "Because of America's growing dependence on imported petroleum, the nation is rapidly approaching a crisis that could threaten the economy, our national security, and the very future of our country. Much of the world's oil supplies are in the hands of nations that either are not supportive of America's interests or are politically unstable. We believe it is time to explore alternatives to our high level of dependence on imported oil."



Senator Lugar at the Lugar-Purdue Summit on Energy Security.

To this end, Senator Lugar proposed dramatic and immediate action to increase energy security in his keynote address. "The United States should adopt a national program that would make virtually every car sold in America a flexible fuel vehicle," Lugar said. "We should ensure that at least one quarter of filling stations in America have E85 pumps. We should expand ethanol production to 100 billion gallons a year by 2025, a figure that could be achieved by doubling output every five years. We should also create an approximate $45 per barrel price floor on oil through a variable ethanol tax credit to ensure that investments keep flowing to alternatives. And we should enact stricter vehicle mileage standards to point automobile innovation toward conservation. The plan I am proposing today would achieve the replacement of 6.5 million barrels of oil per day by volume – the rough equivalent of one third of the oil used in America and one half of our current oil imports."

Purdue University was an ideal partner for the Summit because of the broad range of agricultural, engineering and business resources it devotes to energy security.

UNDERSTANDING OIL ECONOMICS

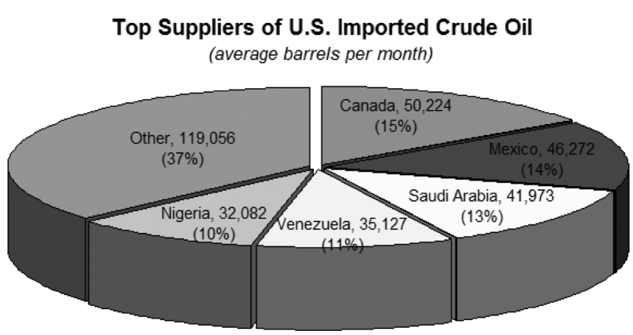
Top Oil Consumers

(in millions of barrels per day)

United States:	20.7
China:	6.4
Japan:	5.35
Russia:	2.77
Germany:	2.64
India:	2.45

World oil consumption reached approximately 84 million barrels per day (bpd) in 2005, and the United States constituted about one quarter of that demand, or 20.7 million bpd. If current consumption trends continue, world demand will reach 118 million bpd by 2030, while U.S. demand will approach 30 million bpd.

U.S. oil companies can only supply about 40 percent of U.S. demand for oil, leaving the remaining 60 percent for import. The top five suppliers of oil to the United States in 2005 were Canada, Mexico, Saudi Arabia, Venezuela, and Nigeria.



LUGAR-OBAMA WOULD ASSIST GEORGIAN CONVENTIONAL WEAPONS DESTRUCTION

Tbilisi, Georgia - U.S. Senate Foreign Relations Committee Chairman Dick Lugar visited a conventional weapons storage site in Georgia containing man-portable air defense systems (MANPADs) and other types of rockets and missiles. The destruction of these weapons is the goal of the Lugar-Obama bill that requires the Secretary of State to establish a global program focused on reducing the threats posed by conventional weapons.

The Georgian facility is one of at least nine former-Soviet munitions storage sites in the country containing thousands of tons of munitions, rockets, missiles, MANPADs, mortar rounds, small arms ammunition, and larger ordnance. These weapons and munitions were left behind when the Soviet Union collapsed.

A Georgian surface-to-air missile system with an operational range of approximately 15 miles. The missiles are about 18 feet long and travel at speeds exceeding Mach 3.

"To date the U.S. response to these threats has been inadequate. U.S. assistance to countries seeking to eliminate proliferation-vulnerable surplus conventional stockpiles is woefully underfunded, unorganized and lacking high-level leadership. The weapons stored here are a potential threat to U.S. and Georgian security and they must be destroyed," Senator Lugar said.

In recent years concerns have grown that terrorists could use these weapons to attack commercial airliners, military installations, and government facilities at home and abroad. The proliferation of these weapons systems also poses a major obstacle to peace, reconstruction and economic development in countries suffering from conflict and instability such as Georgia.

The Lugar-Obama bill focuses on establishing a global program to secure, remove or eliminate stocks of MANPADS and other conventional weapons and tactical missile systems, as well as related equipment and facilities that pose a threat to U.S. interests. The bill would increase U.S. funds available for assisting Georgia and other countries to destroy excess stocks of conventional weapons from $8 million to $33 million.

Senator Lugar and Senator Barack Obama (D-IL) traveled together to Russia, Ukraine and Azerbaijan in August 2005 to oversee a number of Nunn-Lugar projects. In Donetsk, Ukraine, they toured a conventional weapons destruction facility where the U.S. has taken the lead in a three-year NATO program to destroy the conventional weapons. The facility is typical of the focus of the Lugar-Obama legislation.

NUNN-LUGAR TO BEGIN DESTROYING CHEMICAL WEAPONS IN ALBANIA

In August 2004, Lugar visited an Albanian chemical weapons storage site to discuss the need for security upgrades and prospects for U.S. assistance in eliminating the weapons. Two years later the destruction equipment has been delivered and assembled. The system is currently being tested and readied for destruction and weapons elimination is scheduled to begin next month.

Nunn-Lugar was able to destroy these weapons in Albania because of the Nunn-Lugar Expansion Act passed by Congress in 2003, which allowed $50 million in Nunn-Lugar funding to be used outside the former Soviet Union. This Act allows the U.S. to take advantage of non-proliferation opportunities wherever they may appear.

"I commend the Government of Albania for their close cooperation in ensuring the elimination of these dangerous weapons of mass destruction. Together we will have made the people of Albania and the United States safer and contributed to regional and international security," Lugar said.

Lugar Visits Georgian CDC

Calls It a Model for International Cooperation on Infectious Disease

Tbilisi, Georgia - U.S. Senate Foreign Relations Committee Chairman Dick Lugar visited the Georgian Center for Disease Control, home to anthrax, plague and botulinum toxin, and commended Georgia for its efforts to reduce the threats posed by infectious diseases.

Georgia is the first country to agree to consolidate all of its pathogen strains in one location, and through the Nunn-Lugar Program the U.S. has provided Georgia with security upgrades to ensure these pathogens remain secure. Earlier this year, construction began on a permanent Central Reference Laboratory financed by the Nunn-Lugar Program that will serve as a joint U.S.-Georgian laboratory similar to the Defense Department laboratories in Egypt, Thailand and Indonesia. Upon completion, the pathogens will be transferred to the new facility.

Through cooperative research, Georgian scientists are working with personnel from the U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID), including personnel from Walter Reed Army Medical Center, to study strains of dangerous pathogens and infectious diseases, such as tick-borne encephalitis, anthrax and West Nile. Approximately 180 scientists are involved in diagnosing malaria, immunizing children, conducting research, developing and promoting educational health programs, collecting medical statistics, and preparing regulations for epidemiological stations.

The Government of Georgia has provided the U.S. with samples of various strains in its possession so the research can be expanded. The data will provide the U.S. with a reference to compare U.S. strains of diseases with Georgian strains.

In addition to its work at the Center for Disease Control and the Central Reference Laboratory, the Nunn-Lugar Program is dismantling a former Soviet biological weapons production facility outside of Tbilisi. The Department of State is working closely with Nunn-Lugar to establish a feed/micronutrient production facility at the former weapons site to ensure that the scientists working there have peaceful employment.

Tbilisi, Georgia – U.S. Senate Foreign Relations Committee Chairman Dick Lugar (second from left) visited Georgian mountain troops with their President Mikhail Saakashvili (fourth from left) to inaugurate the opening of a military training center near the village of Sachkhere that will support the development of the Georgian armed forces in meeting NATO standards. Senator Lugar expressed his strong support for Georgia's aspirations to join the NATO Alliance.

The Lugar Energy Report, "Importance of the Nabucco Pipeline," July 2009

The Nabucco Pipeline

LUGAR ENERGY REPORT

July 2009

IMPORTANCE OF THE NABUCCO PIPELINE

On July 13, 2009, with only a week's notice, Turkey hosted the celebrated signing of an agreement to move forward on the Nabucco natural gas pipeline. It was a major breakthrough that had seemed unlikely just more than a year ago when U.S. Senator Dick Lugar set out to meet with leaders in supplying and consuming countries.

"Although the time between receiving the invitation and the summit was very short, I knew that the Nabucco project is so important that I had to drop everything to help represent the U.S. commitment to this strategic priority," Senator Lugar said.

Turkish Prime Minister Recep Tayyip Erdogan, a strong Nabucco supporter, convened the Nabucco Inter-governmental Agreement Signing Ceremony and Summit in Ankara, Turkey. Leaders of twelve countries and the European Union showed solidarity for development of the Nabucco pipeline by attending.

"The significance of the Nabucco agreement is far greater than the natural gas it will carry. Agreement on Nabucco is a bold demonstration that governments representing diverse peoples and interests can overcome divisions. It required substantial agreement on energy security between European Union nations, Turkey, Georgia, Azerbaijan, and the United States. It is a signal to the rest of the world that partner governments will not acquiesce to manipulation of energy supplies for political ends. It also has the potential to build new avenues for peaceful cooperation. This prospect was illustrated in the meeting that Ambassador Morningstar and I enjoyed with Iraqi Prime Minister Maliki after the Nabucco signing this week," Senator Lugar said at a Senate Foreign Relations Committee hearing two days after returning from the signing event in Turkey.

"Nabucco will help diversify gas supplies to many European countries. In the process, it will bring more competition and transparency to natural gas markets, and

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IRAQ SUPPORTS NABUCCO

Senator Lugar, a translator and Prime Minister Maliki in Ankara.

Iraqi Prime Minister Nouri al-Maliki told Senator Dick Lugar that Iraq could provide a substantial portion of the natural gas for the Nabucco pipeline. These sales would be critical to Iraq standing on its own.

The prime minister also emphasized that Iraq still needed U.S. support as outlined in the strategic framework agreement between the two countries. Additionally, substantial private investment in oil and gas infrastructure will be required to make necessary gains in production, leading to more reconstruction of the country and economy. He said that Iraq is still working on its hydrocarbon law, which aims to ensure that "all Iraqi people" benefit from oil and gas revenues.

"His desire to export natural gas via Nabucco raises an opportunity for Iraq to establish stronger cooperation with Turkey and beyond and to raise money for the substantial post-war rehabilitation of his country," Senator Lugar said.

Nabucco's Importance, continued

it will reduce the coercive potential of Russia's natural gas dominance."

Senator Lugar noted that when world economies start to recover, energy demand will rebound, causing tight markets and price increases.

"Under such conditions, markets will be highly susceptible to vulnerabilities that can produce severe supply shocks. Three vulnerabilities stand out as areas of concern for energy diplomacy. First, instability and conflict may disrupt energy flows and undermine needed investment. Second, governments may make supply and investment decisions based upon politics, not economics. And finally, terrorist activity may threaten major energy infrastructure.

"In the near term, if we fail to address these vulnerabilities, the prospects for economic recovery could be seriously imperiled. An oil price shock that hits just as a recovery is beginning and demand for energy is increasing would likely generate inflation, undermine market confidence, and increase the risks of conflict. Over the longer term, even if we hope for a conversion from a fossil fuel dominated economy to one that depends

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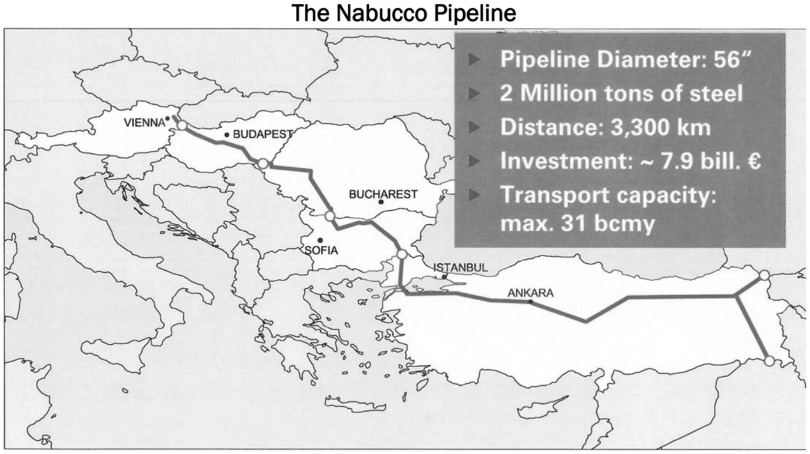
Senator Lugar's mission to Ankara concluded with a lengthy conversation with Turkish President Abdullah Gul, a stalwart Nabucco supporter. The Turkish government projects its own energy needs will rise substantially with economic growth, and Turkey is heavily reliant on Russia for its gas needs. President Gul reaffirmed Turkish pride in being a reliable partner in energy with the U.S. and European partners. Senator Lugar met with the President nearly one year prior at a time when Nabucco threatened to be a distant reality. In welcoming Senator Lugar to the Presidential compound, President Gul thanked him for his Nabucco commitment, stating that the day's summit was "due in large part to your unwavering support."

"Nabucco will help diversify gas supplies to many European countries. In the process, it will bring more competition and transparency to natural gas markets, and it will reduce the coercive potential of Russia's natural gas dominance."

-- Senator Richard Lugar

The Nabucco Pipeline



NABUCCO'S IMPORTANCE, CONTINUED

Senator Lugar and Ambassador Morningstar met with Turkish Energy Minister Taner Yildiz. Minister Yildiz said that signing governments were responsible for the continuing viability of the pipeline.

much more on renewable resources, failure to maintain consistent supplies of oil and natural gas in the interim could be debilitating to our economy and our national security," Senator Lugar continued.

"These are problems that require cooperation with other governments. We can work on long-term U.S. energy independence largely through domestic efforts, but short-term and medium-term energy security is highly dependent on the decisions, investments and political attitudes of other countries. Consequently, there are few topics on which U.S. foreign policy has a greater responsibility to engage."

Russia's dominant position in natural gas delivery to European and Caucasian allies is an important concern for the United States. By interrupting natural gas and oil supplies to several countries, Russia has demonstrated a propensity for politically motivated supply decisions, rather than operating as a reliable market partner. Division within Europe over energy security has been driven in large part by each individual country's relations with Russia, resulting in negative consequences for unity in the trans-Atlantic alliance, stress on NATO, and threats of internal disruption for individual countries.

Azerbaijan, Georgia and Turkey have cemented an extraordinary partnership between their countries and the United States with the flow of Caspian energy through the Baku-Tbilisi-Ceyhan oil and South Caucasus natural gas pipelines. Nabucco will connect with the South Caucasus pipeline in Turkey and extend through Bulgaria, Romania, Hungary, and Austria. Nations adjoining the Nabucco route can all benefit from this new natural gas corridor.

Nabucco offers a valuable opportunity for direct trade between Azerbaijan and, prospectively in the next few years, Turkmenistan and Kazakhstan. This would be valuable diversification for Central Asian states currently dependent upon Russia for nearly all their energy exports. Additional opportunities for international partnership and increased transparency in global energy markets exist with possible Nabucco connections for gas from Egypt and Iraq, which were both represented in Ankara.

Although the United States is neither a customer nor a producer of the natural gas that will traverse the pipeline, steadfast American support over many years has been instrumental in keeping Nabucco on the agenda and for bolstering the confidence of partner countries.

Diplomatic support for Nabucco has been essential, but Senator Lugar also reinforced the message that it is a commercial project. Gas flowing through Nabucco will be bid competitively and transparently. The Nabucco pipeline will be owned by five companies representing the five transit countries as well as the German energy firm RWE, representatives of which Senator Lugar met with in Ankara. RWE's inclusion in the Nabucco consortium has boosted its financial standing and helped solidify support within the German government for the project.

Lugar's 2008 Energy Missions

Lugar's attendance at the Nabucco signing summit was his second energy security mission to Turkey in less than a year, and built upon many years of work on energy security in the region.

In 2008, Senator Lugar undertook a three-leg mission to promote energy security that took him from Central Asia, through the southern Caucasus and Europe, and to Russia.

"Access to reliable energy supplies is at the heart of security concerns for many countries, including the United States. As some nations seek to tighten control over increasingly scarce supplies, oil and natural gas has come to be used for political gain and can be used as a weapon,"

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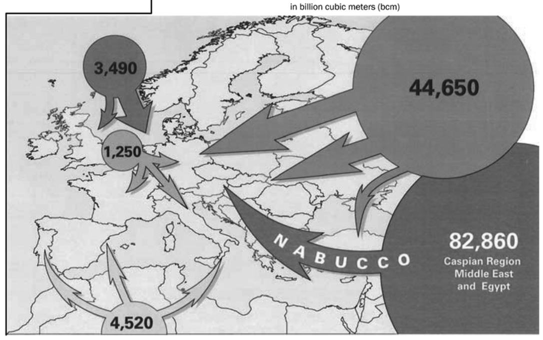
European Natural Gas Supplies

in billion cubic meters (bcm)



Nabucco's Importance, continued

Senator Lugar warned. "The absence of a collaborative energy security strategy will lead to greater fragmentation among European nations and across the Atlantic. This fragmentation will not be exclusive to energy policy; it may also detrimentally impact our ability to act upon shared security and economic issues."

Senator Lugar's Nabucco energy missions have come at a critical time. The trans-Atlantic alliance long has been a source of stability and prosperity in the world. However, unity in the alliance has come under strain as some countries struggled to improve their energy security. At the heart of perceived energy trade insecurity is Russia's hitherto monopolistic control over oil and natural gas exports from the Caspian Sea region and its domination of natural gas flows to much of Europe. Russia's energy sector is dominated by government officials in the Kremlin, and in recent years the government has demonstrated a willingness to use Russia's status as an oil and gas powerhouse to influence – and even threaten – its neighbors. In fact, at least six European nations have experienced politically-charged energy cut-offs in the previous two years.

Senator Lugar with Hungarian Prime Minister Bajnai Gordon. Prime Minister Bajnai said part of the reason the Nabucco project had finally moved forward was because natural gas outages in supply lines from Russia affected 150 million people. He noted, however, that the EU still does not have a coordinated energy policy.

Senator Lugar with Georgian President Mikheil Saakashvili in Ankara. Georgia is an important transit country for oil and gas.

Senator Lugar's meetings promoted unity of purpose in forging a cooperative trans-Atlantic energy security strategy. He vigorously advocated a first priority: completing the so-called East-West energy corridor to bring oil and natural gas across the Caspian from Central Asia to distribution points in Europe. This led to meetings with top government officials in: Kazakhstan, Turkmenistan, Azerbaijan, Georgia, Turkey, Romania, Ukraine, Germany, France, and the European Union based in Belgium. Adding the Nabucco natural gas pipeline to the East-West energy corridor will be a bulwark against political manipulation of gas energy supplies in the region by helping to provide diversification of gas supplies to Europe.

In December 2008, Senator Lugar went to Moscow to discuss with Russian officials the possibilities of getting the strategic arms talks restarted. He noted that even in times of tension between the two nations, cooperation can and should continue on critical issues of mutual interest – in particular combating proliferation of nuclear weapons materials.

Senator Lugar granted that Russia will be Europe's preeminent energy supplier for decades, but commented that it does not have to be a confrontational relationship. Reducing Russian government political sway over energy trade is an important component of building relations with that country.

Meanwhile, U.S. and European strategic, trade, economic, and public diplomacy interests intersect in Central Asia. With Russia to the north and Iran and Afghanistan to the south, energy-rich Central Asia should be at the frontline of American and European national security priorities. Senator Lugar's mission to the Central Asian countries of Kazakhstan and Turkmenistan reinforced his belief that it will take time and a consistent high-level diplomatic effort to build constructive relationships.

In Kazakhstan, the U.S. has a record of 15 years of collaboration on nonproliferation and weapons destruction through the Nunn-Lugar program. This is a solid foundation on which to continue building our relationship. Turkmenistan was an extremely isolated country after the dissolution of the Soviet Union, but the country has undergone extraordinary changes since President Gurbanguli Berdymukhamedov came into office in 2007. Understanding the potential for improved relations with Turkmenistan will require thoughtful diplomatic attention to the country; Senator Lugar was among the first senior U.S. officials to visit Turkmenistani officials in the capital city, Ashgabat.

Kazakhstan and Turkmenistan rely almost exclusively upon Russia to transport their oil and natural gas to world markets. Already, Russia dominates exports from the region and is strongly pushing to lock-up transit rights for new oil and gas supplies. Opening trans-Caspian export routes will dilute Russia's control over energy supplies. Likewise, having multiple export options will reinforce the political independence of Kazakhstan and Turkmenistan. In meetings with Senator Lugar, Kazakh and Turkmenistani officials indicated a willingness to work with its neighbors and the United States on trans-Caspian oil and gas transport. Recent explosions and

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NABUCCO'S IMPORTANCE, CONTINUED

Senator Lugar and Ambassador Morningstar meet with the media at the Ankara summit.

continuing closure of the Turkmen pipeline to Russia has heightened interest in an alternative route to market.

Azerbaijan, Georgia and Turkey have made exceptional progress on improving cooperation from the Caspian Sea to the Mediterranean Sea. The hallmark achievements of that cooperation are the Baku-Tbilisi-Ceyhan oil pipeline and parallel South Caucasus natural gas pipeline. Those two pipelines already cross Azerbaijan, Georgia and Turkey to deliver energy to global markets. Senator Lugar encouraged expansion of the current pipelines to integrate oil and natural gas production in Kazakhstan and Turkmenistan for export across the Caspian Sea. Successful integration of such trans-Caspian transport routes was described by Senator Lugar as a "vital contribution" to international peace and security.

Once dependent solely on Russia for natural gas needs, energy cooperation has enabled Azerbaijan and Georgia to attain a much greater degree of diversification in energy, thus bolstering their economies and independence. Yet these countries exist in a tough neighborhood and are under tremendous pressure to keep their distance from the United States. In meetings with Azerbaijan's President Ilham Aliyev, Senator Lugar reinforced the promise of the growing strategic partnership with the United States. Senator Lugar also encouraged continued progress on transparency for oil and gas revenue management in Azerbaijan.

The difficulty in building diplomatic relationships in the region was tragically highlighted in conflict between Russia and Georgia during the summer of 2008. Senator Lugar visited the emerging democracy and U.S. ally Georgia shortly after the cessation of conflict with Russia. He met with victims of violence, bolstered the morale of U.S. troops and aid workers providing vital services and visited with Georgian government officials. His visit highlighted the need for the U.S. and Europe to improve dialogue in the region and with Russia because, in his words, "we are all going to be in the area for a long time."

By diversifying its sources of energy, Turkey stands better positioned to attain the energy necessary to meet its economic expectations and further enhance its critical security partnership in the trans-Atlantic Alliance.

Senator Lugar's energy security mission in 2008 also took him to several European countries critical to the success of the Nabucco pipeline project, as well as forging a cooperative strategy for energy in Europe and with the United States. He emphasized the need for Europe to strongly commit to construction of the Nabucco pipeline. Without such commitment, Russian-backed alternative pipelines might undermine Nabucco and further entrench European dependence on Russia for natural gas.

Numerous NATO and European Union member states have attempted to make the Nabucco pipeline a reality. In Romania, Senator Lugar encouraged ongoing support for the Nabucco project and praised the President of Romania for his personal diplomatic activity. One of the few countries in the region with domestic oil and natural gas production, Romania currently imports about a quarter of its gas from Russia. As with its neighbors, Romania's long-term security requires diversification of energy resources.

In Ukraine, Senator Lugar continued his ongoing discussions with the country's leaders about the need to diversify their energy resources and the domestic political cooperation necessary to reach that goal. In the middle of winter in 2006, Ukrainian gas supplies were cut off by Russia, leading to further disruptions in service to other European countries. Since that time, Ukrainian and Russian natural gas pricing disputes have continued. Meanwhile, difficulty in maintaining government unity has presented problems for Ukraine in making needed progress. Senator Lugar reaffirmed his support for Ukraine's democratic emergence and encouraged deeper partnership with the United States.

As an economic and political leader in Europe and worldwide, Germany plays a central role in the trajectory of energy security. Germany is already a global leader in renewable energy technologies, yet its support for the Nord Stream pipeline that would connect Germany directly with Russia is seen by some European nations to be counter to long-

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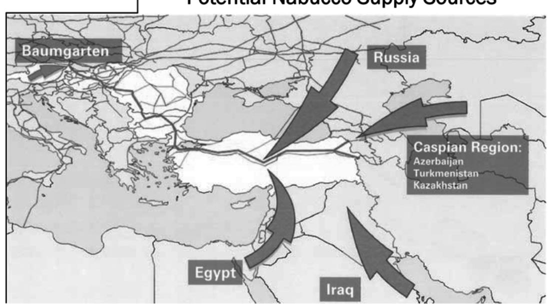
Potential Nabucco Supply Sources



Nabucco's Importance, continued

term energy security for Europe. Meeting with government officials and industry leaders in Berlin, Senator Lugar emphasized the need for German leadership on Nabucco and other necessary energy market reforms in Europe.

Senator Lugar also carried his message to the headquarters of the European Union in Brussels, Belgium, where he was joined by former U.S. Special Envoy for Eurasian Energy C. Boyden Gray. The European Union faces a strong challenge in finding unity in energy security strategy while some of its member states seek to protect their domestic energy champions and prefer to strike bilateral deals with Russia. Senator Lugar emphasized the need for the EU, along with the United States, to build diplomatic relationships in Central Asia and to give strong political support for Nabucco. Senator Lugar also discussed other steps, such as renewable energy and use of productive agriculture for food and energy purposes, to help improve trans-Atlantic energy security.

Conclusion

Purposeful and cooperative efforts today can help rebalance leverage over energy supplies and prevent confrontation. While little oil and natural gas from Central Asia will reach American consumers directly, the supplies are critical to the energy security of our European allies and to international markets.

By promoting more productive relationships between leaders in Central Asia, the south Caucasus and Europe, Senator Lugar continued his ongoing efforts to reduce the political and economic risks of current global energy trends, and reduce the potential for conflict over scarce resources.

A major discussion at the Ankara meeting was the hopeful possibility that Iraqi natural gas would also flow into Nabucco, helping Iraq to stand on its own and enhancing the prospects for stability and commerce in the region.

The United States uses more energy than any other country. Recent gains in American energy efficiency and new renewable energy sources are being more than offset by surging demand in emerging economies, particularly China and India. At the same time, without radical changes in the way we generate and use energy, oil and natural gas rich countries' influence will increase in political, economic and in some cases military spheres. The regrettable reality is that some of these countries will use their newfound influence against U.S. and EU strategic interests. Moving forward on the Nabucco natural gas pipeline is a major strategic step to blunt these threats.

Senator Lugar's Nabucco Statement

The following is Senator Lugar's statement as delivered at the Nabucco Inter-governmental Signing Summit in Ankara. He was introduced by Ambassador Richard Morningstar, U.S. Special Envoy for Eurasian Energy.

Building strong partnerships on energy security in this region has been a priority for the United States government. It is a testament to the strength of the U.S. commitment to energy security in this region that Secretary of State Clinton, with bipartisan support in Congress, has appointed an experienced diplomat to be a full-time representative on this issue.

As we stand together today, we mark an event that will undergird a more prosperous, secure, and peaceful future for us all. One year ago, I traversed the proposed Nabucco pipeline route on a mission to encourage progress and cooperation. Many people doubted whether the political agreement that is being signed today could ever be achieved. The journey to this point has taken courage and visionary statesmanship by numerous leaders. I thank all who have labored to advance the Nabucco agreement. In particular, I congratulate our hosts, President Gul and Prime Minister Erdogan, for their leadership.

Nabucco will provide diversification of natural gas that will benefit supply, transit, and consumer countries alike. It is vital that all of us commit to ensuring that the Intergovernmental Agreement is implemented fully.

Energy security is at the heart of every nation's national security and economic concerns. Yet sometimes a country's pursuit of its own energy security leads them to policies that can damage their allies and neighbors. The consequences of energy insecurity for any one country represented here today could have severe consequences for all the rest: conflicts may erupt; alliances may be strained; and achieving common interests such as non-proliferation, Middle East peace and economic development may be imperiled.

As we move forward together on energy, each of us must act to find unity wherever possible. We must cooperate, even when the issues are difficult. We must build relationships with independent states in the Caspian Sea region. We must explore how to improve confidence with Russia on energy. Europe must do more to inter-connect its energy infrastructure. The NATO alliance must make energy security a much higher priority. And each nation must explore alternative sources of energy and ways to improve the energy efficiency of its economy.

The significance of the Nabucco agreement we are celebrating today is far greater than the natural gas it will carry. Agreement on Nabucco is a bold demonstration that governments representing diverse peoples and geographies can overcome division. It is a signal to the rest of the world that partner governments will not acquiesce to manipulation of energy supplies for political ends. Today, the European Union demonstrates unity of purpose on energy security and stands strongly with Turkey, Georgia and Azerbaijan. The United States is proud to stand with you.

Too often in history competition for energy supplies has factored in wars and conflicts. Your presence today demonstrates that energy cooperation can be a powerful force for peace.

Seven Heads of Government celebrated the Nabucco treaty signing: Prime Minister Recep Tayyip Erdogan of Turkey , President Mikheil Saakashvili of Georgia, Chancellor Werner Faymann of Austria, Prime Minister Sergei Stanishev of Bulgaria, Prime Minister Bajnai Gordon of Hungary, Prime Minister Emil Boc of Romania, & Prime Minister Nouri al-Maliki of Iraq. Other high-level participants included EU Commission President Jose Manuel Barroso and representatives of Azerbaijan, Egypt, Syria, Germany, & Sweden.

Appendix II

Transcript of Senator Lugar's keynote address at the German Marshall Fund Conference, delivered at the NATO Summit in Riga, Latvia

Congressional Record, Senate
VOL. 152, PT. 18

Mr. President: I rise today to request that my remarks, delivered in a keynote address at the German Marshall Fund conference on Monday, November 27 in Riga, Latvia in advance of the NATO Summit, be entered into the record.

Thank you Madam President [Dr. Vaira Vike-Freiberga, President of the Republic of Latvia]. I appreciate your thoughtful introduction and your generous hospitality. It is a pleasure to be back in Riga and to deliver the keynote address here at this important German Marshall Fund conference. This conference and the participants it has drawn are evidence of the deep respect the Fund merits throughout Europe and North America.

In 1991 NATO stood at a crossroads. With the collapse of the Soviet Union and the Warsaw Pact, the Alliance could have declared victory and disbanded. Instead, NATO chose to adapt to the new security environment and build on its legacy of being the most successful security and defense organization in history.

Since that time, we have welcomed ten new members into the Alliance and have begun a dramatic transformation of our military capabilities. We have also undertaken missions in the Balkans and Afghanistan that have extended the purpose of the Alliance beyond the territorial defense of its membership. However, while NATO is busier than ever, these activities do not guarantee that the Alliance will remain strong and relevant.

For nearly half a century, NATO was oriented toward defending against an attack from the East by Warsaw Pact forces. Today, NATO's posture is influenced by emerging threats such as the proliferation of weapons of mass destruction, rogue states, terrorism, and genocide. The security threats of the 21st century require NATO members to deploy forces rapidly over long distances, sustain operations for extended periods of time, and operate jointly as trans-Atlantic partners with the United States in high intensity conflicts. To be fully relevant to the security and well being of the people of its member nations, NATO must think and act globally.

The Test of Afghanistan

This is evident in the NATO mission in Afghanistan. That country presents a difficult environment, but NATO must be resourceful, resilient, and ultimately successful. The September 11 attacks were planned in Afghanistan, al-Qaeda still operates there, and the fate of the country remains inexorably tied to the Alliance. NATO's

International Security and Assistance Force (ISAF) is responsible for security operations throughout all of Afghanistan.

In recent months, Taliban attacks have occurred with greater frequency, coordination, and ferocity. They have extended well beyond the South and East, where most of the fighting has been located. Although the hunt for al-Qaeda terrorists continues, the primary threat to the stability of Afghanistan is Taliban insurgents who are challenging ISAF in greater numbers, sowing dissent among Afghanis, cooperating with the bourgeoning narcotics trade, and complicating security efforts in ways that inhibit the rule of law and reconstruction.

If the most prominent alliance in modern history were to fail in its first operation outside of Europe due to a lack of will by its members, the efficacy of NATO and the ability to take joint action against a terrorist threat would be called into question. Moreover, Afghanistan has a legitimately elected government and a long-suffering people, both of which deserve a chance to succeed without the threat of violent upheaval.

It is imperative that NATO fulfills its commitments to Afghanistan. The Alliance has found it difficult to generate the political will to meet NATO objectives. The reluctance in capitals to grant NATO requests for troops and resources have complicated this process. Despite months of intensive discussions, Supreme Allied Commander/Europe, General Jim Jones, disclosed in September that NATO was 2,500 troops short of the minimal commitment requested for ISAF. These troops did not materialize until General Jones and other NATO leaders publicly put Alliance nations on the spot for these shortfalls.

Afghanistan has become a test case for whether we can overcome the growing discrepancy between NATO's expanding missions and its lagging capabilities. NATO commanders must have the resources to provide security, and they must have the flexibility to use troops to meet Afghanistan's most critical security needs. Unfortunately, NATO capitals are making the military mission even more difficult by placing national caveats on the use of their forces. These restrictions, coupled with troop shortages, are making ISAF a less cohesive and capable force.

Similar problems are plaguing the NATO Response Force (NRF), which is slated to be NATO's expeditionary fighting unit. As is often the case, the lack of transport capabilities is a glaring deficiency. I am hopeful that the plan to establish a fleet of C-17s under the command and control of NATO succeeds. To overcome these challenges and similar ones, we must reverse the downward spiral of defense budgets. Only a handful of members spend more than 2 percent of their gross domestic product on defense. Good intentions can only carry a military force so far—the NRF and other NATO assets must have the equipment, training, and resources to fulfill their mission.

I believe strongly that NATO is capable of meeting the challenge in Afghanistan. NATO commanders have demonstrated that they understand the complexity of the mission. They know that success in Afghanistan depends on the attitudes of the people, the progress of reconstruction, the development of the economy and the building of civil institutions that can deal with the narcotics trade, as much as it depends on battlefield victories.

Most Afghanis have welcomed the advances in personal freedom, political participation, and educational opportunities that have come during the last five years. The recent increase in violence in Afghanistan clearly is not evidence of a popular uprising. But to the degree that there is discontent, disillusionment, or fear among the Afghan people due to their security situation, trust in the Afghan Government and NATO will dissipate. Insecurity stemming from insurgent activity by Taliban forces has also caused Afghanis in some regions to seek the protection of tribal leaders and warlords, which in turn undercuts the authority of the Afghan Government and increases the risk of civil conflict between tribal factions. Given these dynamics, we must dispel any doubts about the commitment of NATO and the West to Afghanistan's emergence as a stable and free society.

The Centrality of Energy

NATO's challenges continue to come in new formations. We have to understand not only the military configuration of threats before us, but also the likely basis for future conflict. The NATO alliance has been successful, not because it fought wars, but because it prevented them. If the NATO alliance is to be fully relevant to the security of its members, it must expand beyond the mission of military defense and begin to think about how to prevent the conditions that will lead to war.

In the coming decades, the most likely source of armed conflict in the European theater and the surrounding regions will be energy scarcity and manipulation. It would be irresponsible for NATO to decline involvement in energy security, when it is abundantly apparent that the jobs, health, and security of our modern economies and societies depend on the sufficiency and timely availability of diverse energy resources.

We all hope that the economics of supply and pricing surrounding energy transactions will be rational and transparent. We hope that nations with abundant oil and natural gas will reliably supply these resources in normal market transactions to those who need them. We hope that pipelines, sea lanes, and other means of transmission will be safe. We hope that energy cartels will not be formed to limit available supplies and manipulate markets. We hope that energy rich nations will not exclude or confiscate productive foreign energy investments in the name of nationalism. And we hope that vast energy wealth will not be a source of corruption within nations that desperately ask their governments to develop and deliver the benefits of this wealth broadly to society.

Unfortunately, our experiences provide little reason to be confident that market rationality will be the governing force behind energy policy and transactions. The majority of oil and natural gas supplies and reserves in the world are not controlled by efficient, privately owned companies. Geology and politics have created oil and natural gas superpowers that nearly monopolize the world's oil supply. According to PFC Energy, foreign governments control up to 79 percent of the world's oil reserves through their national oil companies. These governments set prices through their investment and production decisions, and they have wide latitude to shut off the taps for political reasons.

The vast majority of these oil assets are afflicted by at least one of three problems: lack of investment, political manipulation, or the threat of instability and terrorism. As recently as four years ago, spare production capacity exceeded world oil consumption by about ten percent. As world demand for oil has rapidly increased in the last few years, spare capacity has declined to two percent or less. Thus, even minor disruptions of oil supply can drive up prices. Earlier this year, a routine inspection found corrosion in a section of BP's Prudhoe Bay oil pipeline that shut down 8 percent of U.S. oil output, causing a $2 spike in oil prices. That the oil market is this vulnerable to something as mundane as corrosion in a pipeline is evidence of the precarious conditions in which we live.

Within the last year and a half, the international flow of oil has been disrupted by hurricanes, unrest in Nigeria, and continued sabotage in Iraq. Al-Qaeda and other terrorist organizations have openly declared their intent to attack oil facilities to inflict pain on Western economies. We should also recognize that NATO members are transferring hundreds of billions of dollars each year to some of the least accountable, autocratic regimes in the world. The revenues flowing to authoritarian regimes often increase corruption in those countries and allow them to insulate themselves from international pressure and the democratic aspirations of their own peoples. As large industrializing nations such as China and India seek new energy supplies, oil and natural gas may not be abundant and accessible enough to support continued economic growth in both the industrialized West and in large rapidly growing economies. In these conditions, energy supplies will become an even stronger magnet for conflict.

Under the worst case scenarios, oil and natural gas will be the currency through which energy-rich countries leverage their interests against import dependent nations. The use of energy as an overt weapon is not a theoretical threat of the future; it is happening now. Iran has repeatedly threatened to cut off oil exports to selected nations if economic sanctions are imposed against it for its nuclear enrichment program. Russia's shut off of energy deliveries to Ukraine demonstrated how tempting it is to use energy to achieve political aims and underscored the vulnerability of consumer nations to their energy suppliers. Russia retreated from the standoff after a strong Western reaction, but how would NATO have responded if Russia had maintained the embargo? The Ukrainian economy and military could have been crippled without a shot being fired, and the dangers and losses to several NATO member nations would have mounted significantly.

We are used to thinking in terms of conventional warfare between nations, but energy could become the weapon of choice for those who possess it. It may seem to be a less lethal weapon than military force, but a natural gas shutdown to a European country in the middle of winter could cause death and economic loss on the scale of a military attack. Moreover, in such circumstances, nations would become desperate, increasing the chances of armed conflict and terrorism. The potential use of energy as a weapon requires NATO to review what Alliance obligations would be in such cases.

Energy as an Article Five Commitment

We must move now to address our energy vulnerability. Sufficient investment and planning cannot happen overnight, and it will take years to change behavior, construct successful strategies, and build supporting infrastructure.NATO must determine what steps it is willing to take if Poland, Germany, Hungary, Latvia or another member state is threatened as Ukraine was. Because an attack using energy as a weapon can devastate a nation's economy and yield hundreds or even thousands of casualties, the Alliance must avow that defending against such attacks is an Article Five commitment. This does not mean that attempts to manipulate energy for international political gain would require a NATO military response. Rather, it means that the Alliance must commit itself to preparing for and responding to attempts to use the energy weapon against its fellow members. NATO must become a reliable refuge for members against threats stemming from their energy insecurity. If this does not happen, the Alliance is likely to become badly divided as vulnerable members seek to placate their energy suppliers. In fact, no issue in the history of NATO is so likely to divide the alliance in the absence of concerted action.

Article Five of the NATO Charter identifies an attack on one member as an attack on all. Originally envisioned to respond to an armed invasion, this commitment was the bedrock of our Cold War alliance and a powerful symbol of unity that deterred Warsaw Pact aggression for nearly fifty years. It was also designed to prevent coercion of a NATO member by a non-member state. We should recognize that there is little ultimate difference between a member being forced to submit to foreign coercion because of an energy cutoff and a member facing a military blockade or other military demonstration on its borders.

In preparing for such a commitment, NATO leaders should develop a strategy that includes the re-supply of a victim of an aggressive energy suspension. How would the Alliance shift energy supplies and services to a member under such an attack? What steps can NATO take now to ensure that we have the infrastructure in place to respond to such an attack? What steps are needed to diversify our energy sources and supply routes to deter the use of energy as a weapon? Alternatives to existing pipeline routes must be identified and financial and political support for the development of alternative energy sources is crucial. A coordinated and well-publicized Alliance response would be a deterrent that would reduce the chances of miscalculation or military conflict. It would also provide a powerful incentive for Member states to remain in the Alliance and for prospective members to accelerate reforms necessary to qualify for membership.

The energy threat is more difficult to prepare for than a ground war in Central Europe. Troops, equipment, and supplies can move along highways and over difficult terrain. Energy supplies do not enjoy the same freedom of movement. Developing a logistical response to an energy cutoff will prove a complex challenge.

My friend, Mark Grossman, the former U.S. Under Secretary of State for Policy, has proposed reviving the REFORGER exercises of the Cold War. These exercises were carried out to prepare for the massive troop and equipment re-supply mission that would be required to thwart a Soviet attack. A new REFORGER should focus on how the Alliance would supply a beleaguered member with the energy resources needed to withstand geo-strategic blackmail. This will not be easy or comfortable for the Alliance. Members will be required to tighten their belts and make hard choices. But, if we fail to prepare, we will intensify our predicament.

Beyond constructing strong alliance commitments related to energy, NATO must engage Russia and other energy rich nations. I advocate establishing regular high-level consultations between Russia and NATO on energy security. The economic and political situation in Russia is intensely influenced by the price of energy. Moscow is banking on big returns from its energy sector indefinitely into the future. But the fickleness of energy markets affects not only consumers, but producers.

I believe that Russia has a long-term interest in achieving a more prosperous stability that comes with greater investment in its energy sector and the development of a reputation as a trusted supplier. But its recent actions to temporarily reduce gas supplies to the West, confiscate some foreign energy investments, and create further barriers to new investment are undermining confidence in Moscow's reliability. This trend is likely to have unintended repercussions for Russia. Even now, Russians are feeling the effects of inadequate investment in their energy sector. Russia boasts the world's largest reserves of natural gas, but this winter it could face gas shortages of its own. Russia has not contended with investment problems in its natural gas industry, and its artificially low domestic gas prices have undermined the development of efficiency measures that are commonplace in the West. Russia now requires gas imports from Central Asia, which it sells at a premium to Europe. Yet if growing domestic demand in Russia outstrips stagnating production and Central Asian imports, as some commentators predict, the Kremlin will face the difficult choice between letting some of its people go cold or not meeting its commitments to Europe.

We do not wish these difficulties on anyone. But we should speak clearly with Russia about our concerns and our determination to protect our economies and our peoples. We should outline the differences between a future in which Russia tries to leverage for political advantage the energy vulnerabilities of its neighbors and a future in which Russia solidifies consumer-producer trust with the West and respects energy investments that help expand and maintain Russia's production capacity. Energy is a two-way relationship and will remain so even as Europe and the United States diversify their energy resource base. Both NATO and Russia need a sustained discussion on the rule of law, the status of foreign investment, bi-national and multinational agreements, and steps to implement the principles agreed to at the G-8 Summit in July.

Expanding NATO's Partners

One critical element in strengthening the alliance's energy security is developing new relationships and admitting new members who will contribute to NATO's efforts in this area. I applaud Alliance efforts to develop special relationships with states around the world. At the Riga Summit, NATO should authorize the creation of partnerships with like-minded countries such as Japan, Australia, South Korea, Finland, and Sweden.

An effective energy strategy should also include new strategic relationships with energy exporters. I urge Alliance leaders to look to the Caucasus and Central Asia for new partnerships. These states are critically located and important sources of oil and natural gas. Substantial improvement is needed in the region in areas such as democracy, the rule of law, and civil society. A closer relationship with NATO will promote these values and contribute to our mutual security. I recommend that NATO focus especially on its relationships with Azerbajian and Kazakhstan. While both countries have considerable work to do, eventual NATO membership must be on the table.

I believe that some aspirant states are prepared to assume membership responsibilities. Croatia, Albania, and Macedonia should be invited to join NATO as soon as they meet Alliance requirements. Each has expressed a strong desire to join the Alliance, and each is capable of making important contributions. While I am disappointed that invitations will not be extended here at Riga, we must increase the tempo of cooperation between the Alliance and those states.

NATO should also invite Georgia to join the Alliance. Tbilisi is a young democratic government, resisting pressure from breakaway republics backed by Moscow and Russian troops on Georgian soil. Georgia has been a superb role model for the region, and it is host to critical segments of the Baku-Tbilisi-Ceyhan oil pipeline and the Southern Caucuses natural gas pipeline. Two months ago, the NATO Secretary General announced that the Alliance had launched an Intensified Dialogue with Georgia. While this is an important step, NATO must grant a Membership Action Plan as soon as possible.

After recovering from recent political instability, Ukraine has indicated that it wants to move more slowly toward NATO membership. I am pleased that Kiev has acknowledged the important work needed to accurately convey to its population what NATO membership would mean. While I hope this process might move more quickly, I urge the Alliance, when all applicable criteria are satisfied, to support efforts for Ukraine to join NATO.

The Alliance must also continue to encourage Belgrade to meet its international obligations, which include full cooperation with the International Criminal Tribunal for the former Yugoslavia. With additional progress on war criminals and other important reforms, Serbia would be a valuable member of the Alliance.

Conclusion

By their nature, alliances require constant study and revision if they are to be resilient and relevant. They must examine the needs of their members and determine how the alliance can safeguard the freedom, prosperity, and security of each member. NATO has survived and prospered because it has been able to do this repeatedly. We have met the threat of Soviet aggression, expanded the zone of peace and security across Europe, guarded against the risks posed by terrorism and weapons of mass destruction, and improved our ability to project power over long distances. We are meeting threats in Afghanistan, the African continent, and other locations outside Europe. But if we fail to reorient the Alliance to address energy security, we will be ignoring the dynamic that is most likely to spur conflict and threaten the well-being of alliance members.

I understand that adopting energy security as a mission is a major advancement from NATO's origins. But it represents an historic opportunity to change the circumstances of geopolitics to the benefit of all members. At this summit, we should engage in a broad, strategic debate on how we can ensure progress in Afghanistan, strengthen NATO through new members, and face the energy security threats of the 21st century together. Although Riga may not produce definitive answers to these questions, it must be the summit that starts the crucial discussion that will lead to consensus.

The stakes are such that if we wait even a few years, we are likely to find that our alliance is in jeopardy. We will look back at this point in time and see it as a critical juncture that required bold vision and leadership. I look forward to working together with each of you to provide this leadership.

Thank you.

Appendix III

Letter to Secretary of State Condoleezza Rice from Senator Lugar and then-Senator Biden regarding the appointment of a U.S. Special Envoy for Eurasian Energy Security

JOSEPH R. BIDEN, JR., DELAWARE, CHAIRMAN

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DAVID VITTER, LOUISIANA

ANTONY J. BLINKEN, STAFF DIRECTOR
KENNETH A. MYERS, JR., REPUBLICAN STAFF DIRECTOR

United States Senate
COMMITTEE ON FOREIGN RELATIONS
WASHINGTON, DC 20510–6225

October 4, 2007

The Honorable Condoleezza Rice
Secretary of State
Washington, D.C.

Dear Secretary Rice:

We write to express our concern for securing the United States' interests in the nations of the southern Caucasus and Central Asia, and to urge more robust diplomatic engagement in that region.

U.S. security interests in the southern Caucasus and Central Asia have been made clear with the continuing war in Afghanistan. That strategic position remains vital, particularly in relation to NATO activities. Likewise, the region is an intersection of U.S. trade, security, and public diplomacy interests. The region confronts many pressing challenges relating to economic growth, civil society, terrorism, proliferation of weapons of mass destruction, democratic development, and inter- and intra- state conflict in which the United States can play a productive role.

In particular, further opening of the East-West energy corridor from Central Asia through the Caucasus and on to Western markets should have full backing of U.S. diplomacy. While little oil and natural gas will reach American consumers directly, the supplies are critical to the energy security of our European allies and to international markets. The Baku-Tbilisi-Ceyhan pipeline effort was a bold strategic initiative that today reaps tremendous benefits. We must to build on that effort in a way that meets today's challenges.

Russia's attempt to consolidate its control over energy resources presents unacceptable security and economic risks to the United States and our allies. Russia has demonstrated its willingness to use its energy resources for political influence in Europe, and recent unilateral action taken against international energy companies operating within Russia threaten the reliability of energy supplies.

More diplomatic engagement is needed today in order to improve our working relationship with Russia on energy issues. We must not lose sight of our long-term interest in preventing Russian domination of energy in the Southern Caucasus and Central Asia.

Control of energy resources in the Caspian basin and Central Asia would further strengthen Russia's already commanding position in global energy markets and leverage over import-dependent nations. The agreements President Putin announced in May 2007 with Kazakhstan and Turkmenistan and his personal attention to Central Asia suggest a policy intended to give Russia monopoly control of oil and natural gas export routes in Central Asia. We should find enhanced ways to address this challenge and demonstrate our public commitment to alternative energy routes.

We applaud the efforts of Deputy Assistant Secretary of State Matt Bryza, who has represented the United States with tremendous energy and creativity. The importance of the Caspian and Central Asia for U.S. security and the ongoing activities of Russia lead us to believe that U.S. diplomatic engagement in the region should be enhanced.

We urge you to consider appointment of a special representative dedicated to energy in the Caspian Sea basin and Central Asia. Such a representative could work with the International Energy Coordinator and Bureau of European Affairs to galvanize use of U.S. diplomatic resources in the region. It would also demonstrate to leaders in the region a higher level of U.S. regional commitment.

Sincerely,

Richard G. Lugar
Ranking Minority Member

Joseph R. Biden, Jr.
Chairman

Appendix IV

LIQUEFIED NATURAL GAS (LNG) FOR NATO ACT

112TH CONGRESS
2D SESSION

S. ______

To provide certain assistance to North Atlantic Treaty Organization allies.

IN THE SENATE OF THE UNITED STATES

Mr. LUGAR introduced the following bill; which was read twice and referred to the Committee on

A BILL

To provide certain assistance to North Atlantic Treaty Organization allies.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. CERTAIN TRADE WITH NATO ALLIES.

The Foreign Assistance Act of 1961 is amended by inserting after section 667 (22 U.S.C. 2427) the following:

"SEC. 668. CERTAIN TRADE WITH NATO ALLIES.

"For purposes of section 3(c) of the Act of June 21, 1938, each North Atlantic Treaty Organization member nation shall be treated as a nation with which there is in effect a free trade agreement.".

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