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Energy and Security, This for That

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Energy and Security, This for That

Matthew Neely*

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INTRODUCTION

Without using cyber attacks or even little green men, Russia could devastate European North Atlantic Treaty Organization (NATO) allies by simply turning off the gas. NATO allies, and particularly Eastern European NATO allies, are dependent on Russia to supply their oil and gas. "A cut in gas supply [to NATO]

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would generate enormous economic costs . . . And even the lucky ones who would get gas would have to deal with dizzying price spikes.”¹ A Russian disruption to German supply, for example, could cause German industries to lose electricity, supply chains to collapse, decreased production, and increased layoffs.² Russia has a demonstrated willingness and capability to exploit this European dependency on Russian oil and gas exports. As NATO increasingly finds itself at odds with Russia, how can NATO defend against this threat?³

This paper argues that NATO should use Articles 2 and 3 authority, rather than Article 5, to protect the alliance from the Russian threat. Specifically, NATO should use these authorities to tailor its current Article 5-centric guideline that allies spend 2% of their Gross Domestic Product (GDP) on defense and instead require allies to either spend 2% of their GDP on defense or .4% of their GDP on European energy security initiatives under Articles 2 and 3 authority. NATO allies that opt to spend .4% of their GDP on energy security would be encouraged to spend 1.6% of their GDP on defense. To enforce this new requirement, any NATO ally that fails to spend .4% of their GDP on energy security or 2% on defense in any three of the last five years would forfeit their right to invoke Article 5 of the NATO Treaty (hereinafter the “revised spending requirement”).

Tailoring NATO’s current spending guideline in such a manner would have two benefits. First, NATO would reduce Russia’s capacity to finance its military. Second, NATO would be better positioned to guard against a Russian disruption to energy supplies by both having reduced NATO dependency on Russian gas exports and having improved its ability to respond to supply disruptions. In support of this position, Part I of this article examines how Russian oil and gas export policies threaten the European NATO allies. Part II examines NATO’s 2% spending guideline, the unrealized potential of NATO Treaty Articles 2 and 3, and proposes specific language to promulgate the revised spending requirement. Part III examines the European Union (EU) energy policy, and more particularly its energy security strategy. Part IV identifies projects that are part of the EU energy security strategy that NATO should fund pursuant to the revised spending requirement. Following Part IV is a conclusion.

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* Matthew Neely is a law student at Georgetown University and an active-duty Marine. The opinions expressed in this article are solely the opinion of the author, and do not portray or presume to portray any opinions of the U.S. Department of Defense, U.S. Navy, or U.S. Marine Corps. The author would like to thank his wife for her love and support.

1. *LEAKED: What Happens to Germany if Russia Turns off the Gas*, WOLF STREET (Oct. 21, 2014), <http://wolfstreet.com/2014/10/21/leaked-what-happens-to-germany-if-russia-turns-off-the-gas/>.
2. *Id.*
3. North Atlantic Treaty, Apr. 4, 1949, 63 Stat. 2241, 34 U.N.T.S. 243 (NATO).

I.
THE RUSSIAN THREAT

Following the Cold War, a spirit of cooperation existed between NATO and Russia.⁴ In 1994, Russia joined NATO's "Partnership for Peace" program that encourages "practical bilateral cooperation between individual Euro-Atlantic partner countries and NATO."⁵ It allows partners to build up an individual relationship with NATO, choosing their own priorities for cooperation."⁶ The relationship has since soured. In 2007, Russian President Vladimir Putin began openly challenging NATO and eventually executed a foreign policy in congruence with his challenges.⁷ President Putin's foreign policy appears particularly concerned with challenging NATO influence in Eastern Europe.⁸ As General Sir Richard Shirreff, former Deputy Supreme Allied Commander Europe, bluntly stated "Putin's strategic aim is clear: to re-establish Russia's status as one of the world's great powers and to dominate the former republics of the Soviet Union."⁹

Part I.A of this section illustrates how a key tenet of President Putin's strategy is exploiting European dependence on Russian oil and gas exports. Part I.B examines the broader threat President Putin's strategy poses to NATO physical security. Part I.C discusses the revenues Russia receives from its oil and gas exports and how they affect Russia's ability to finance its military.

A. *Russian Threat to European Energy Security*

"Today, the EU imports 53% of the energy it consumes" including almost 90% of its crude oil and 66% of its natural gas.¹⁰ The dependency on energy supply imports presents a EU "security of supply" issue that is even more acute in countries that are largely dependent upon a single exporter.¹¹ Because the EU's "prosperity and security hinges on a stable and abundant supply of energy,"¹² energy security should be of paramount concern to the EU.

4. *Towards a Grand Strategy for an Uncertain World*, VOLTAIRENET.ORG, http://www.bing.com/cr?IG=B47DD6E15C724216BFCEB989D2E399BD&CID=2F033A91E54D6C70271E337AE47C6D27&rd=1&h=qAB87c4zSAuNvAjM_uU7WR-qUcoKGY9WCdG-7BahSBg&v=1&r=http://www.voltairenet.org/IMG/pdf/NATO_new_Strategy-2.pdf&p=DevEx,5082.1 (last visited Dec. 13, 2016).

5. Signatures, http://www.nato.int/cps/en/natolive/topics_82584.htm.

6. *Partnership for Peace programme*, http://www.nato.int/cps/en/natohq/topics_50349.htm.

7. Thom Shanker & Mark Landler, *Putin Says U.S. Is Undermining Global Stability*, N.Y. TIMES, (Feb. 11, 2007) <http://www.nytimes.com/2007/02/11/world/europe/11munich.html>.

8. See Richard Shirreff, *Putin's Aggression in Europe Should Worry the US*, CNN (Oct. 21, 2016), <http://www.cnn.com/2016/10/21/opinions/russia-aggression-nato-shirreff-opinion/index.html>.

9. *Id.*

10. European Commission, *European Energy Security Strategy*, <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52014DC0330&from=EN> (last visited Dec. 14, 2016).

11. *Id.*

12. *Id.*

NATO allies Poland, Slovakia and Hungary receive over 90% of their crude oil from Russia.¹³ Other NATO allies such as Slovakia, the Czech Republic, and Hungary are completely reliant on Russian oil pipelines.¹⁴ NATO allies Poland, Lithuania, Hungary, and Bulgaria are almost entirely dependent upon Russia for their natural gas imports. More specifically, in 2013 Poland imported 77% of its natural gas from Russia; all of Lithuania's gas is imported from Russia through a single pipeline; Hungary imports 80% of its gas from Russia; and 92% of Bulgaria's gas is imported from Russia.¹⁵ In short, NATO countries are susceptible to Russian disruptions to their oil and gas supply.

Russia has demonstrated its willingness to exploit this vulnerability for its own political or strategic purposes. For example, in 2007 Russia halted exports of "oil products to Estonia . . . in a move that coincided with protests in Moscow over the Baltic state's relocation of a Soviet war memorial."¹⁶ In 2006, "the Druzhba ("Friendship" in Russian) oil pipeline was shut down by Russia for so-called 'technical repairs' after Lithuania refused to sell its oil refinery to a Russian-led consortium."¹⁷ In 2003, a year prior to Latvia joining NATO, the Russians stopped oil exports to Latvia because of Latvian resistance to Russian corporations having ownership of Latvian oil trade infrastructure.¹⁸

Russia also exploits non-NATO Eastern European countries' dependence upon Russian oil and gas exports to influence their domestic politics in favor of Russian interests. An example is Russian pressure on Moldova in 2013 as Moldova publicly debated whether it should be politically allied with Russia or Western Europe.¹⁹ Amid this debate, "a senior Russian envoy . . . told Moldovans that 'energy supplies are important in the run-up to winter—I hope you won't freeze.'"²⁰ Another example of exploitation is Russia's fluctuating gas export

13. CAMBRIDGE ECONOMETRICS, A STUDY ON OIL DEPENDENCY IN THE EU, A REPORT FOR TRANSPORT AND ENVIRONMENT (2016),

https://www.transportenvironment.org/sites/te/files/publications/2016_07_Study_EU_oil_dependency.pdf (last visited Dec. 14, 2016).

14. *Id.*

15. This was true as of 2013, the most recent data available. Brenda Shaffer, *Europe's Natural Gas Security of Supply: Policy Tools for Single-Supplied States*, 36 ENERGY L.J. 179, 187, 190, 193, 196 (2015).

16. Dmitry Zhdannikov, *Russia Halts Estonia Fuel Transit Amid Statue Row*, REUTERS (May 2, 2007), <http://www.reuters.com/article/us-russia-estonia-energy-idUSL0264696120070502>.

17. Zygimantas Pavilionisk, *Lithuanian Energy Freedom: Will the US Help?*, WORLD AFFAIRS J. (Mar./Apr. 2015), <http://www.worldaffairsjournal.org/article/lithuanian-energy-freedom-will-us-help>.

18. Sabrina Tavernise, *International Business; Latvia's Oil Routes Dry Up as Russia Alters Flow*, N.Y. TIMES (Jan. 21, 2003), <http://www.nytimes.com/2003/01/21/business/international-business-latvia-s-oil-routes-dry-up-as-russia-alters-flow.html>.

19. Vladimir Socor, *Ethnic Factors Affecting Moldova's Debate on Association With the European Union*, 11 EURASIA DAILY MONITOR (Feb. 20, 2014), <https://jamestown.org/program/ethnic-factors-affecting-moldovas-debate-on-association-with-the-european-union/>.

20. Laurence Peter, *Armenia rift over trade deal fuels EU-Russia tension*, BBC NEWS (Sep. 5, 2013), <http://www.bbc.co.uk/news/world-europe-23975951>.

prices to Ukraine. In the early 2000s, Ukraine was “rewarded by the Kremlin with subsidized oil and gas sales.”²¹ Specifically, between 2000 and 2005 the average price of Russian gas exports to the rest of Europe rose from \$103.2 per 1,000 cubic meters (mcm) to \$192.5 per mcm, while the price of Russian gas to Ukraine held steady at \$50/mcm.²² In the December 2004 “Orange Revolution,” a Russian-backed Ukrainian presidential candidate lost the election to a Western-backed candidate.²³ Following the election, Russia raised Ukrainian gas export prices to \$230 per mcm.²⁴ In 2010, a pro-Russian leaning candidate won the presidential election.²⁵ Soon thereafter, Russia instituted an “export duty-exemption” that lowered the price of oil and gas exports to Ukraine.²⁶ In February 2014, the pro-Russian President of Ukraine was the subject of a coup and fled office.²⁷ In April 2014, after Russia annexed Crimea from Ukraine (discussed below in Part I.B), Russia annulled the export duty-exemption raising the price of its natural gas exports to Ukraine by 81%, “reaching a level higher than for any European Union nation.”²⁸ Russia has also gone beyond simply manipulating prices by suspending gas exports to Ukraine altogether in 2006 and 2009.²⁹ In response to the 2009 stoppage, Ukraine was forced to reverse the flow of gas in its pipelines so that it “transport[ed] gas from Ukraine’s storage facilities . . . to major consuming areas. This reversal of one of the world’s largest gas transit systems was unprecedented.”³⁰

21. Randall Newnham, *Oil, Carrots, and Sticks: Russia’s Energy Resources as a Foreign Policy Tool*, 2

J. EURASIAN STUD. 134, 138 (2011).

22. Simon Pirani, *Ukraine’s Gas Sector*, 29 OXFORD INST. ENERGY STUD. (2007), <https://www.oxfordenergy.org/wpcms/wp-content/uploads/2010/11/NG21-UkrainesGasSector-SimonPirani-2007.pdf>.

23. Adrian Karatnycky, *Ukraine’s Orange Revolution*, FOREIGN AFFAIRS (Mar./Apr. 2005), <https://www.foreignaffairs.com/articles/russia-fsu/2005-03-01/ukraines-orange-revolution>; Victor Yasmann, *Russia: Moscow Uses Different Lever Of Influence, Same Message*, RADIOFREEEUROPE/RADIOLIBERTY (Jan. 3, 2006) <http://www.rferl.org/a/1064385.html>.

24. Tom Parfitt, *Russia Turns Off Supplies to Ukraine In Payment Row, and EU Feels the Chill*, THE GUARDIAN (Jan. 2, 2006), <https://www.theguardian.com/world/2006/jan/02/russia.ukraine>.

25. *Final Tally Shows Yanukovich Wins Ukraine Election*, CNN (Feb. 10, 2010), <http://www.cnn.com/2010/WORLD/europe/02/10/ukraine.elections/>.

26. *Gazprom Faces \$800 Million in Taxes as Ukraine Rejects Gas Price*, BLOOMBERG, (May 26, 2014), <https://www.bloomberg.com/news/articles/2014-05-26/gazprom-faces-800-million-in-taxes-as-ukraine-rejects-gas-price>.

27. *Ukraine Crisis: Timeline*, BBC NEWS (Nov. 13, 2014), <http://www.bbc.com/news/world-middle-east-26248275>.

28. *Russia to Charge Ukraine More Than Germany as Gas Discounts End*, BLOOMBERG (Apr. 3, 2014), <https://www.bloomberg.com/news/articles/2014-04-03/russia-to-charge-ukraine-more-than-germany-as-gas-discounts-end>.

29. Randall E. Newnham, *supra* note 21; Parfitt, *supra* note 24.

30. Simon Pirani, Jonathan Stern & Katja Yafimava, *The Russo-Ukrainian Gas Dispute of January 2009: A Comprehensive Assessment*, OXFORD INST. ENERGY STUD. (Feb. 2009), <https://www.oxfordenergy.org/wpcms/wp-content/uploads/2010/11/NG27-TheRussoUkrainianGasDisputeofJanuary2009AComprehensiveAssessment-JonathanSternSimonPiraniKatjaYafimava-2009.pdf>.

Manipulating and twice suspending gas exports to Ukraine was clearly part of a strategy to keep Ukraine within the Russian orbit of influence and out of NATO's. As one Kremlin consultant stated "[i]n reality, Ukraine [was] choosing not between politicians or electoral blocs, but between NATO and the Single Economic Space with Russia."³¹ A leader of a Ukrainian pro-Russian political organization stated, "what else but gas could convince the people of Ukraine that it's better to be a friend of Russia than the European Union and NATO."³²

B. Russian Strategic Aims as a Threat to NATO Physical Security

Russia is attempting to increase its military capabilities as tensions grow between it and NATO.³³ Russian expenditures on new missiles, bombers, submarines, helicopters, armored vehicles, and air-defense systems are all evidence of this strategic goal,³⁴ as are alarming reports that Russia is attempting to modernize its nuclear arsenal.³⁵ Most concerning is Russia's demonstrated willingness to put these military investments to use. In 2008, after separatists in South Ossetia began fighting with the Georgian military, Russia invaded Georgia in support of the separatists. In 2014, as noted above, the Russian military interfered in the Ukrainian Civil War and ultimately annexed Crimea from Ukraine.³⁶ Most recently, Russia has engaged in extensive military operations in support of the Syrian government in its civil war.³⁷

Further, recent Russian statements and actions indicate their willingness to engage the Russian military in actions hostile to NATO. For instance, a "revised military doctrine signed by Mr. Putin in December [2014] identified 'reinforcement of NATO's offensive capacities directly on Russia's borders, and measures taken to deploy a global antimissile defence [*sic*] system' in central Europe as the greatest threats Russia faces."³⁸ On October 26, 2016, NATO Secretary General Jens Stoltenberg reported that Russia is "conducting large-scale, no-notice exercises close to NATO borders."³⁹ One of these exercises "was

31. Victor Yasmann, *supra* note 23.

32. *Id.*

33. See *Russia Overhauls Nuclear Missile Forces as Tensions With West Flare*, MOSCOW TIMES, (Sep. 22, 2014) <https://themoscowtimes.com/articles/russia-overhauls-nuclear-missile-forces-as-tensions-with-west-flare-39636> (last visited Dec. 15, 2016).

34. *What Russia wants: From Cold War to Hot War*, THE ECONOMIST (Feb. 12, 2015) <http://www.economist.com/news/briefing/21643220-russias-aggression-ukraine-part-broader-and-more-dangerous-confrontation>.

35. MOSCOW TIMES, *supra* note 33.

36. Luke Harding, *Ukraine Ceasefire Leaves Frontline Counting Cost of War in Uneasy Calm*, THE GUARDIAN (Dec. 17, 2014), <https://www.theguardian.com/world/2014/dec/17/ukraine-ceasefire-frontline-counting-cost-war-uneasy-calm>; *Putin Admits Russian Forces Were Deployed to Crimea*, REUTERS (Apr. 17, 2014), <http://uk.reuters.com/article/russia-putin-crimea-idUKL6N0N921H20140417>.

37. Kathy Gilsinan, *A Who's Who Guide to the Syrian Civil War*, DEFENSE ONE (Oct. 29, 2015), <http://www.defenseone.com/threats/2015/10/whos-who-guide-syrian-civil-war/123240/>.

38. *What Russia wants: From Cold War to Hot War*, *supra* note 34.

39. James Masters, *NATO Bolsters Presence in Eastern Europe as Russia Tension Rises*, CNN

based on a scenario of invasion and occupation of the Baltic states.”⁴⁰ Given this information, NATO must conclude that Russia is serious about challenging NATO influence in Eastern Europe and willing to use its military in pursuit of its strategic aims.

C. Russian Federal Government Revenues⁴¹

Revenues from oil and gas exports accounted for an estimated 40% of the Russian federal budget revenues in 2015.⁴² The World Bank does not parse how much of the federal budget revenues are from oils and how much are from gas. It is possible, however, to estimate that between 2012 and 2015 Russia exported \$598 billion worth of crude oil,⁴³ \$396 billion of oils other than crude,⁴⁴ and \$253 billion of natural gas.⁴⁵ The sum estimated revenue for these oil and gas exports

(Oct. 27, 2016), <http://www.cnn.com/2016/10/27/europe/nato-russia-troops/index.html>.

40. Shirreff, *supra* note 8.

41. United Nations International Trade Statistics Database, Department of Economic and Social Affairs/Statistics Division (UN Comtrade, DESA/UNSD) is the source of all export data. The trade classification scheme used was the Harmonized System (HS), meaning the data is as reported. This is the suggested default on UN Comtrade’s website. UN Comtrade, DESA/UNSD is considered the most comprehensive trade database available with more than 1 billion records. There are several disclaimed limitations, however: (1) The values of the reported detailed commodity data do not necessarily sum up to the total trade value for a given country dataset; (2) Data are made available in several commodity classifications, but not all countries necessarily report in the most recent commodity classification; (3) When data are converted from a more recent to an older classification it may occur that some of the converted commodity codes contain more (or less) products than what is implied by the official commodity heading; (5) Imports reported by one country do not coincide with exports reported by its trading partner. Differences are due to various factors including valuation (imports CIF, exports FOB), differences in inclusions/ exclusions of particular commodities, timing etc.; (6) Almost all countries report as partner country for imports the country of origin which is determined by the rules of origin established by each country hence, the term ‘partner country’ in the case of imports does not necessarily imply any direct trading relationship; and (7) Countries (or areas) do not necessarily report their trade statistics for each and every year. This means that aggregations of data into groups of countries may involve countries with no reported data for a specific year.

42. *Russian Economic Report: The Long Journey to Recovery*, WORLD BANK GROUP (Apr. 2016), <http://documents.worldbank.org/curated/en/657991467989516696/pdf/104825-NWP-P156290-PUBLIC-WB-RER-No-35-FINAL-ENG.pdf>.

43. UN COMTRADE, <http://comtrade.un.org/db/dqBasicQueryResults.aspx?px=HS&cc=2709&r=643&p=0&rg=2&y=2015,2014,2013,2012,2011&so=8> (Last visited Apr. 2, 2017) (Russian exports to the world of UN Commodities List Code 2709: \$180,929,707,639 (2012); \$173,669,617,054 (2013); \$153,887,932,499 (2014); \$89,576,493,234 (2015); \$598,063,750,426 (SUM)).

44. UN COMTRADE, <http://comtrade.un.org/db/dqBasicQueryResults.aspx?px=HS&cc=2710&r=643&p=0&rg=2&y=2015,2014,2013,2012,2011&so=8> (Russian exports to the world of UN Commodities List Code 2710: \$103,624,225,856 (2012); \$109,415,419,578 (2013); \$115,807,733,882 (2014); \$67,403,070,633 (2015); \$396,250,449,949 (SUM)).

45. UN COMTRADE, <http://comtrade.un.org/db/dqBasicQueryResults.aspx?px=HS&cc=2711,271111,271112,271113,271114,271119,271121,271129&r=643&p=0&rg=2&y=2015,2014,2013,2012,2011&so=8> (Russian exports to the world of UN Commodities List Code 2711 - \$68,834,575,435 (2012); \$74,639,149,258 (2013); \$62,647,852,136 (2014); \$47,517,699,095 (2015); \$253,639,275,924 (SUM)).

between 2012 and 2015 is \$1.2 trillion, which is nearly two-thirds of all Russian export revenues over the same period.

The largest share of these federal budget revenues come from European NATO allies importing Russian oil and gas. From 2012 through 2015, the NATO allies imported \$365 billion worth of Russian crude oil, \$264 billion worth of Russian petroleum oils, and \$83 billion worth of Russian natural gases.⁴⁶ This is an average of 57% of all Russian oil and gas exports, or more specifically 61% total Russian crude oil export revenues, 67% Russian petroleum oils export revenues, and 33% of Russian natural gas export revenues over that same period.

It is important to note that these revenue figures are skewed because the 2015 Russian oil and gas export revenues were significantly lower than the 2012-2014 oil and gas export revenues. This is a result of several factors that are worth studying because they provide insight into how NATO might approach the Russian threat. The reduced revenues are not a result of a decline in the volume of oil and gas Russia exported. In 2014, Russia exported 223.4 billion kg of crude oil, 165.2 billion kg of other oils other than crude, and 98.5 billion kg of natural gas.⁴⁷ In 2015, Russia exported 244.4 billion kg of crude oil, 171.5 billion kg of oils other than crude, and 99 billion kg of natural gases.⁴⁸

The precipitous drop in Russian oil and gas export revenues in 2015 can instead be attributed to plummeting oil prices.⁴⁹ The “protracted drop in oil prices reflects a combination of supply- and demand-side factors.”⁵⁰ On the supply side, there was an oil production boom resultant from United States shale and fracking and OPEC’s December 2014 decision to not reduce its own production of oil.⁵¹ On the demand side, warmer winters and slowing growth amongst major oil importers worked in tandem to reduce demand for oil.⁵² Compounding these problems is Russia’s concentrated oil and gas trade profile that is dependent upon a single market.⁵³

46. UN COMTRADE, <https://comtrade.un.org/data/> (In the “periods” field enter 2015, in “Reporters” enter Russian Federation, in “Partners” enter each of the NATO allies (you can only do five at a time), in “Trade Flows” enter export, in “HS (as reported) commodity codes” enter 2709, 2710, and 2711) (The petroleum gases and other gaseous hydrocarbons are reported via the different NATO countries reporters rather than the Russian reporter. This is the only export/import stat in which this paper uses the importers’ reporters rather than the exporter. The Russian reporter recorded only \$4,943,174,238 in Russian petroleum gases and other gaseous hydrocarbons from 2012-2015).

47. UN COMTRADE, <https://comtrade.un.org/data/> (In the “periods” field enter 2014, in “Reporters” enter Russian Federation, in “Partners” leave it as the world, in “Trade Flows” enter export, in “HS (as reported) commodity codes” enter 2709, 2710, and 2711).

48. UN COMTRADE, <https://comtrade.un.org/data/> (In the “periods” field enter 2015, in “Reporters” enter Russian Federation, in “Partners” leave it as the world, in “Trade Flows” enter export, in “HS (as reported) commodity codes” enter 2709, 2710, and 2711).

49. *Russian Economic Report: The Long Journey to Recovery*, *supra* note 42.

50. *Id.*

51. *Id.*

52. *Id.*

53. *Id.*

Another factor is the sanctions imposed on Russia in response to Russian aggression in Ukraine.⁵⁴ The sanctions work to generally prohibit Russian financial institutions from raising capital in the West, and they have forced the Russian government to use its own money to shore up its financial institutions.⁵⁵ The “sanctions are generally assessed to have helped exacerbate the macroeconomic challenges [Russia] was already facing, notably the rapid and pronounced fall in oil prices”⁵⁶

The loss of oil and gas export revenues has had a direct effect on the Russian federal budget revenues. Oil and gas federal budget revenues in 2014 and 2015 were \$196.08 billion and \$102.45 billion respectively.⁵⁷ In December 2015, the Russian Finance Ministry estimated that total Russian federal budget revenues in 2016 would be \$204 billion.⁵⁸ Using the World Bank’s estimate that revenue from oil and gas exports account for 40% of the Russian federal budget revenues, it is reasonable to conclude that the Russian federal government budgeted on \$81.6 billion in oil and gas revenues in 2016.⁵⁹

The loss of revenues resulted in Russian federal government expenditure reductions. The Russian Finance Minister explained that the expenditure cuts are the only way to solve Russia’s budget crisis.⁶⁰ The cuts began with a modest 5% expenditure reduction in 2015.⁶¹ In January 2016, the Russian government cut another 10% of expenditures.⁶² Russian defense expenditures have not escaped these cuts. In 2014 the Stockholm International Peace Research Institute recorded Russian military expenditures as \$84.5 billion.⁶³ In 2015 the defense expenditures

54. Alanna Petroff, *Russia Throws Lifeline to Companies Starved for Cash by Sanctions*, CNN MONEY (Jan. 2, 2015), <http://money.cnn.com/2015/01/02/news/economy/russia-rescues-companies/index.html>.

55. *Id.*

56. *Sanctions After Crimea: Have they worked?*, NATO REV., <http://www.nato.int/docu/review/2015/Russia/sanctions-after-crimea-have-they-worked/EN/index.htm> (last visited Dec 14, 2016).

57. *Russian Economic Report: The Long Journey to Recovery*, *supra* note 42 (Oil and gas federal budget revenues were 9.5% of the GDP and 7.3% of the GDP respectively); *Russian Federation*, WORLD BANK, <http://data.worldbank.org/country/russian-federation> (last visited Dec. 15, 2016) (In 2014 the Russian GDP was \$2.064 trillion, and in 2015 it was \$1.366 trillion).

58. *Russia’s Budget Deficit to Reach \$21Bn in 2016 – Finance Ministry*, MOSCOW TIMES (Dec. 11, 2015), <https://themoscowtimes.com/articles/russias-budget-deficit-to-reach-21bn-in-2016-finance-ministry-51200>.

59. *Russian Economic Report: The Long Journey to Recovery*, *supra* note 42.

60. Ivana Kottasova, *Russian Official Calls for 10% Spending Cuts as Revenue Plummets*, CNN MONEY (Jan. 14, 2015), <http://money.cnn.com/2015/01/14/news/economy/russia-spending-cuts/index.html>.

61. *Id.*

62. *UPDATE 1-Hit by oil price, Russia Imposes 10 Percent Cuts on Government Again*, REUTERS (Jan. 12, 2016), <http://www.reuters.com/article/russia-economy-budget-idUSL8N14W2E620160112>.

63. Sam Perlo-Freeman, Aude Fleurant, Pieter D. Wezeman, & Siemon T. Wezeman, *Trends In World Military Expenditures*, STOCKHOLM INT’L PEACE RESEARCH INST. (Apr. 2015), <http://books.sipri.org/files/FS/SIPRIFS1504.pdf>.

were reported by another source as \$51.5 billion.⁶⁴ In 2016 the Russian defense budget was reduced to an estimated \$49.2 billion dollars.⁶⁵ According to a released Russian draft budget for 2017, Russian military expenditures will drop further to \$45.8 billion.⁶⁶ NATO must conclude that its imports of Russian oil and gas are a significant contributor to Russian federal budget revenues and, as a corollary, support Russia's ability to finance military expenditures.

II.

NATO'S 2% SPENDING GUIDELINE⁶⁷

This section examines the continued relevance of the current NATO 2% spending guideline. Part II.A of this section discusses the current state of the 2% spending guideline, Part II.B scrutinizes the 2% guideline's relevance, and Part II.C investigates the unrealized potential of Articles 2 and 3 of the NATO Treaty. These parts will support the conclusion that the revised spending requirement is more effective than the current spending guideline. In order to promulgate this conclusion, Part II.D proposes specific language for the revised spending requirement that could be used as a NATO Summit declaration.

A. *The Current State of the 2% Guideline*

In 2006, NATO held a summit to discuss the future of the alliance in Riga, Latvia.⁶⁸ At the Riga Summit, the 2% spending guideline was included as part of a summit declaration for the first time in NATO's history, giving what had previously been an "unofficial floor" on defense spending "increased political relevance" to the military alliance.⁶⁹ The 2014 Russian annexation of Crimea prompted NATO to again address the 2% guideline. On September 5, 2014, NATO held a summit in Wales and affirmed their collective view concerning the

64. Ivana Kottasova, *Oil Crunch Bites: Russia and Saudi Arabia Cut Defense Budgets*, CNN (March 31, 2016), <http://money.cnn.com/2016/03/31/news/saudi-arabia-russia-military-spending/index.html>.

65. *Id.*

66. Kathrin Hille, *Russia prepares for deep budget cuts that may even hit defence*, FINANCIAL TIMES (Oct. 30, 2016), <https://www.ft.com/content/806400be-9e94-11e6-891e-abe238dee8e2>.

67. Member countries make direct and indirect contributions to the costs of running NATO. Direct contributions are made to finance requirements of the Alliance that serve the interests of all 28 members, and are not the responsibility of any single member (e.g., supporting the Brussels headquarters and civilian staff). Direct contributions are determined by the principle of common funding in that all 28 members contribute according to an agreed cost-share formula. Indirect contributions, on the other hand, are the largest source of NATO funding which is the individual NATO states providing their own funding for the deployment of troops in support of military operations. The 2% spending guideline pertains to indirect funding, and is the exclusive focus of this paper.

68. Martin Butcher, *NATO, Riga and Beyond*, ACRONYM FOR DISARMAMENT DIPLOMACY (Apr. 30, 2007), <http://www.acronym.org.uk/old/dd/dd84/84nato.htm>.

69. Jan Techau, *The Politics of 2 Percent: NATO and the Security Vacuum in Europe*, CARNEGIE EUROPE (Sep. 2, 2015), <http://carnegieeurope.eu/2015/09/02/politics-of-2-percent-nato-and-security-vacuum-in-europe-pub-61139>.

importance of NATO's commitment to a self-defense alliance in light of the recent Russian aggression.⁷⁰ In the Wales declaration, NATO pledged that:

Allies currently meeting the NATO guideline to spend a minimum of 2% of their Gross Domestic Product (GDP) on defence will aim to continue to do so . . . Allies whose current proportion of GDP spent on defence is below this level will: halt any decline in defence expenditure; aim to increase defence expenditure in real terms as GDP grows; aim to move towards the 2% guideline within a decade . . .⁷¹

NATO further recognized that "overall security and defence depend both on how much we spend and how we spend it."⁷² This declaration signals that NATO recognizes it must spend in congruence with a common design to meet the Russian threat.

NATO defense spending has long been a problem for the Alliance. European NATO allies have chronically reduced defense funding since the end of the Cold War, membership in the Organization has nearly doubled.⁷³ From 1990-1994 the European NATO allies averaged 2.5% spending, from 1995-1999 they averaged 2.1%, from 2000-2004 they averaged 1.9%, and from 2005-2009 they averaged 1.8%.⁷⁴ During the same time periods, the United States defense spending averaged respectively 4.6%, 3.3%, 3.4%, and 4.5% of its GDP.⁷⁵ This trend continued into the present decade. From 2010 to 2015, the European allies averaged 1.53% spending on defense as a percentage of GDP whereas the United States averaged 4.24%.⁷⁶

In addition to 'how much we spend,' the Wales Summit declaration directed defense expenditures "towards meeting our capability priorities."⁷⁷ Directing the increased investments on defense capabilities is misguided, unrealistic, and ultimately fails to best marshal the collective NATO allies' instruments of power towards its common objective of guarding against Russian aggression. Instead, the recent Russian federal budget crisis should inform NATO that Russia's continued ability to rise as a great power and threaten NATO is intrinsically tied to the continued strength of the Russian energy export market. Therefore, rather

70. *Wales Summit Declaration: Issued by the Heads of State and Government Participating in the Meeting of the North Atlantic Council in Wales*, NATO, http://www.nato.int/cps/en/natohq/official_texts_112964.htm (last visited Dec. 15, 2016).

71. *Id.*

72. *Id.*

73. FINANCIAL AND ECONOMIC DATA RELATING TO NATO DEFENSE - DEFENSE EXPENDITURES OF NATO COUNTRIES (1985-2009), NATO (Oct. 29, 2010), http://www.nato.int/cps/en/natohq/news_64221.htm.

74. FINANCIAL AND ECONOMIC DATA RELATING TO NATO DEFENSE - DEFENSE EXPENDITURES OF NATO COUNTRIES (1990-2010), NATO (Mar. 10, 2011) http://www.nato.int/nato_static_fl2014/assets/pdf/pdf_2011_03/20110309_PR_CP_2011_027.pdf.

75. *Id.*

76. DEFENSE EXPENDITURES OF NATO COUNTRIES (2009-2016), NATO, http://www.nato.int/cps/en/natohq/news_132934.htm (last visited Dec. 15, 2016).

77. *Id.*

than exclusively investing in collective defense military capabilities, NATO should invest in collective measures to mitigate the strength of Russian energy exports.

B. The Relevance of the 2% Guideline to NATO

The above detailed history of European NATO allies failing to meet the 2% spending guideline offers little hope that the European NATO allies will meet the current 2% guideline. NATO allies Belgium and Germany have already indicated that they will fail to meet the 2% goal for the foreseeable future.⁷⁸ The Wales Summit declaration's true significance is discerned by examining the spending decreases of NATO European allies following the 2006 Riga Summit where the European NATO allies' average military expenditures decreased rather than increased to meet the 2% spending guideline (as noted in Part II.A, from 2000-2004 they averaged 1.9% and from 2005-2009 they averaged 1.8%).

NATO's website describes the Riga Summit's 2% guideline as "an indicator of a country's political will to contribute to the Alliance's common defense efforts."⁷⁹ The soft language of the Wales Summit declaration (e.g., "aim" to "move towards" the "guideline")⁸⁰ suggests that this view of the 2% guideline as only an indicator of political will is still prevailing within NATO. At least some NATO observers accept that, despite the Wales Summit declaration, the 2% guideline remains—as it was after Riga—a mere political tool.⁸¹ It is reasonable to conclude that NATO is comfortable with their collective military failing to meet the 2% guideline.

A comparison between NATO's military expenditures and Russia's military expenditures support this conclusion. The Stockholm International Peace Research Institute records international defense expenditures of 170 different countries. In 2014, the most recent data available, the United States spent \$610 billion.⁸² In addition to the United States, four other NATO allies are in the top fifteen spenders on defense in the world (France, Germany, the United Kingdom, and Italy).⁸³ These four countries collectively spent an estimated \$200.2 billion on defense in 2014.⁸⁴ As noted in Part I.C, the Russians spent \$84.5 billion on defense in 2014, which is \$725.7 billion less than the top five spending NATO allies.⁸⁵

78. Techau, *supra* note 69.

79. FUNDING NATO, http://www.nato.int/cps/en/natohq/topics_67655.htm (last visited Dec. 14, 2016) (select "Indirect funding of NATO").

80. Wales Summit Declaration, *supra* note 70.

81. Techau, *supra* note 69.

82. Sam Perlo-Freeman et al., *supra* note 63.

83. *Id.*

84. *Id.*

85. *Id.*

C. *The Unrealized Utility of Articles 2 and 3 of the NATO Treaty*

The NATO Treaty is the founding document of the NATO alliance that affirms the alliance's commitment to peace and stability.⁸⁶ Article 2 of the NATO treaty states, in relevant part: "The Parties will . . . encourage economic collaboration between any or all of them."⁸⁷ Article 3 states: "In more effectively to achieve the objectives of this Treaty, the Parties, separately and jointly, by means of continuous and effective self-help and mutual aid, will maintain and develop their individual and collective capacity to resist armed attack."⁸⁸ Articles 2 and 3 taken together provide an affirmative requirement (e.g., "The Parties will contribute," "will encourage economic collaboration," "will maintain and develop") for NATO members to engage in what might be called a 'whole of government' approach (i.e., integrating each allies collective diplomatic, informational, military or economic instruments of power) to the Russian threat.

The Vienna Convention on the Law of Treaties (VCLT) supports the interpretation that Articles 2 and 3 provide an affirmative requirement for a 'whole of government' NATO approach. Article 31(1) of the VCLT states that treaties are "interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose."⁸⁹ Article 31(2) of the VCLT states the "context for the purpose of the interpretation of a treaty shall . . . include[e] its preamble."⁹⁰ The NATO Treaty's preamble states that the alliance seeks to "promote stability" and is "resolved to unite their efforts for collective defence and for the preservation of peace and security."⁹¹ A good faith interpretation of Article 3's authority to develop a collective capacity to resist against an armed attack, therefore, includes the authority to develop a collective capacity to resist against the lesser, but still hostile, threat of energy disruptions. This is necessarily so because a Russian disruption to NATO's energy supply would have a negative effect on NATO's stability, peace and security commensurate with a limited conventional military attack. This interpretation fits with the axiom "*qui potest plus (maius), potest minus,*" or the authority to do more is authority to do less. Article 3's mandate operating in conjunction with Article 2's focus on promoting "conditions of stability and well-being" through "economic collaboration," legally supports a NATO "whole of government" approach to the Russian threat.

However, NATO has failed to adopt a "whole of government" approach to threats. This is shown by the NATO press office describing Article 2 as "significant," but being unable to provide any examples of initiatives that exist

86. NATO *supra* note 3 at preamble.

87. *Id.* at art. 2.

88. *Id.* at art. 3.

89. Vienna Convention on the Law of Treaties art. 31(1), opened for signature May 23, 1969, 1155 U.N.T.S. 331. (the United States signed the treaty on April 24, 1970 but has not ratified it).

90. *Id.* at art. 31(2)

91. NATO, *supra* note 3 at preamble.

under the auspice of Article 2 authority.⁹² Examples of NATO Article 3 programs, on the other hand, include the United States furnishing \$24 million in field radio equipment to Lithuania⁹³ and \$23 million in anti-tank missiles to Estonia.⁹⁴ These programs positively contribute to Estonia and Lithuania's ability to engage in self-defense but remain in the traditional NATO paradigm of approaching threats with a military solution.⁹⁵

NATO's failure to adopt "whole of government" strategic solutions is likely owed to its existence as primarily a military alliance. NATO has, however, recognized the importance of energy security as potentially impacting its Article 5 military mission. For example, NATO has a stated goal of enhancing "its strategic awareness of energy developments with security implications."⁹⁶ NATO cites its recognition that energy "supply disruptions would have far reaching security implications" and its development of a consultation process to discuss energy security developments as an example of its pursuit of this goal.⁹⁷ In other words, this military-centric approach to threats has resulted in little more than conversations about energy security within the NATO alliance. NATO should abandon this limited approach to energy security and use Article 2 and 3 to embrace a "whole of government" approach.

In addition to the legal basis under Articles 2 and 3 of the NATO treat, NATO has other legal and political motivations to take such action. For instance, every NATO member has ratified the Paris Agreement, which came into force on November 4, 2016, although the United States has announced that it is pulling out of the treaty.⁹⁸ This agreement requires governments to set more ambitious targets on carbon emissions every five years, with the goal of keeping the increase in global average temperature below 2°C above pre-industrial levels. As discussed below in Part IV.A, the revised spending requirement would cause NATO allies to spend on energy efficiency initiatives that simultaneously meet their obligations under the Paris Agreement. Politically, President Trump has indicated his dissatisfaction with the other NATO allies' financial contributions to the

92. E-mail from Rehanna Jones-Boutaleb, NATO Press Office, to author (Nov. 3, 2016, 07:08) (on file with author).

93. *Lithuania Upgrades Radio Communications Equipment*, U.S. MISSION TO NATO, <https://nato.usmission.gov/lithuania-upgrades-radio-communications-equipment/> (last visited Dec. 15, 2016).

94. *Estonia Takes Delivery of Javelin Anti-Tank Missiles*, U.S. MISSION TO NATO, <https://nato.usmission.gov/estonia-takes-delivery-of-javelin-anti-tank-missiles/> (last visited Dec. 15, 2016).

95. See NATO, *supra* note 3, at art. 5.

96. Energy Security, NATO, http://www.nato.int/cps/en/natohq/topics_49208.htm (last visited Dec. 15, 2016).

97. NATO's Energy Security Agenda, NATO, <http://www.nato.int/docu/review/2014/NATO-Energy-security-running-on-empty/NATO-energy-security-agenda/EN/index.htm> (last visited Dec. 15, 2016).

98. PARIS AGREEMENT, STATUS OF RATIFICATION, U.N., http://unfccc.int/paris_agreement/items/9444.php (last visited Dec. 15, 2016).

alliance, and a willingness to re-examine the United States' role in the alliance.⁹⁹ The revised spending requirement offers the European NATO allies an opportunity to demonstrate an increased commitment to NATO and avoid President Trump's consideration of leaving the alliance. For the United States and the other NATO allies already meeting the current 2% spending guideline the revised spending requirement would not impact their status quo and therefore should be politically agreeable.

D. The Proposed Revised Spending Requirement

In consideration of the above, a NATO Summit declaration should be made with words to the effect of:

"We, the Heads of State and Government of the member countries of the North Atlantic Alliance, have gathered at a pivotal moment in Euro-Atlantic security. Russia's aggressive actions have challenged our vision of a Europe at peace. It has become increasingly apparent that our peace is intrinsically tied to our energy security. It is therefore no longer an acceptable risk to be as dependent upon Russian oil and gas exports to the degree that NATO members presently are.

To ensure our alliance is more fully guarded against the Russian threat, and under the Auspice of Articles 2 and 3 of the NATO Treaty, the NATO allies agree to the following as legally binding:

Allies that fail to meet the NATO guideline to spend a minimum of 2% of their GDP on defense are required to spend at least .4% of their GDP on energy security measures as coordinated through NATO headquarters.

To enforce this spending requirement, and beginning in five years from the date of this declaration, any Ally failing to spend .4% of their GDP on appropriately coordinated energy security projects in any three of the last five years forfeits their right to invoke Article 5 of the treaty.

The forfeiture of Article 5 privileges is not permanent. The right to invoke Article 5 will be restored to any NATO ally when, to the satisfaction of NATO headquarters, that Ally demonstrates it has either (i) met the 2% spending guideline in the past year as measured from the date it requests restoration of Article 5 privileges; or (ii) has spent .4% of its GDP in any three of the last five years as measured from the date it requests restoration of Article 5 privileges.

The Allies agree to revisit this revised spending requirement annually to review its progress and modify or rescind it as appropriate.

III.

THE EU ENERGY POLICY

Before examining how to implement a "whole of government" approach for NATO, this section discusses the EU's energy policy with a focus on the policy's

99. Krishnadev Calamur, *NATO Shmato?*, THE ATLANTIC, <http://www.theatlantic.com/news/archive/2016/07/trump-nato/492341/> (last visited Dec. 14, 2016).

energy security strategy. The EU's energy policy has three main goals: (1) security of supply, (2) competitiveness, and (3) sustainability.¹⁰⁰ To assist in realizing these three goals, the EU chartered the European Energy Union in February 2015. The Energy Union builds on existing EU energy policy including the Energy Security Strategy.¹⁰¹ The Energy Security Strategy was formulated after studying the results of an "energy security stress test" system in response to two hypothetical scenarios in 2014: (1) a complete halt of Russian gas imports to the EU, and (2) a disruption of Russian gas imports through Ukraine.¹⁰² The energy security strategy that was formulated in response to this stress test includes proposals for increasing energy efficiency and the diversity of energy supply routes.¹⁰³

The execution of this strategy is conducted "primarily on two levels: the [EU] institutions and the member states."¹⁰⁴ Between the two, the "national institutions have the largest say."¹⁰⁵ Within this construct, the EU primarily influences member states and investors to build projects that are congruent with the EU's overarching energy policy.¹⁰⁶ This arrangement has made the EU's energy policy subsidiary to national interests. For example, according to an advisor in the Directorate General For Energy, European Commission, many of the EU member states most at risk to energy supply disruptions are poorer states, and consequently, these states invest in energy proposals that prioritize income generation over energy security.¹⁰⁷ The European Commission advisor further explains that having "optionality" (an increased diversity of supply routes so that no single actor can turn off the supply of energy) contributes tremendously to energy security. The tradeoff for "optionality" is redundant infrastructure. It is difficult to persuade investors to construct redundant infrastructure, however, because it often sits idle it is therefore unlikely to offer an attractive return on investment.¹⁰⁸ The current market-based system is unable to adequately address security threats because the investor's incentives are not congruent with proper energy security. Security requires redundancy, whereas profits require efficiency.¹⁰⁹

100. Energy European Union, https://europa.eu/european-union/topics/energy_en (last visited Dec. 14, 2016).

101. Building the Energy Union, <https://ec.europa.eu/energy/en/topics/energy-strategy-and-energy-union/building-energy-union> (last visited Dec. 14, 2016).

102. ENERGY SECURITY STRATEGY, EUROPEAN COMMISSION, <https://ec.europa.eu/energy/en/topics/energy-strategy/energy-security-strategy> (last visited Dec. 14, 2016).

103. *Id.*

104. Shaffer, *supra* note 15.

105. *Id.*

106. Telephone Interview with anonymous, Advisor, Directorate General for Energy, European Commission (Nov. 22, 2016) (on file with author).

107. *Id.*

108. *Id.*

109. *See* Shaffer, *supra* note 15.

IV.

HOW NATO SHOULD USE A “WHOLE OF GOVERNMENT” APPROACH IN SUPPORT OF ENERGY SECURITY

The execution of the EU’s energy security strategy could be improved by removing “market forces” as a motivating factor for its implementation. NATO’s shared interest in European energy security provides an incentive for the Alliance to assist in implementing the energy security strategy. NATO has already taken steps in partnership with the EU to further regional energy security. Per the NATO press office, “EU and NATO officials regularly discuss energy security developments in staff-to-staff talks. EU officials, including EU Commission Vice President, Ambassador Maros Sefcovic, have also briefed the North Atlantic Council on global energy developments and their security implications.”¹¹⁰

This dialogue is a positive first step; however, there is plenty of room for increased NATO involvement. This section of the paper discusses actionable projects to increase both energy efficiency and the diversity of energy supply routes that, if completed, would reduce Russian leverage over NATO and increase NATO’s ability to respond to a Russian disruption of gas supply. Part IV.A of this section will examine the utility to NATO of increasing European energy efficiency to reduce the Russian export revenues and reduce its leverage Russia can exert over NATO and the EU at large. Part IV.B will examine the benefit to NATO of diversifying energy supply routes to guard against a Russian supply disruption. Part IV.C will discuss the immediate focus on gas security rather than oil security. Part IV.D will examine why the .4% figure is appropriate. Part IV.E will examine Russia’s likely response to this initiative. Part IV.F will examine a possible accounting mechanism to ensure there is fidelity to this spending requirement.

A. *Increasing Energy Efficiency*

To increase energy efficiency the EU must focus on buildings and industry, “which use 40% and 25% of total EU energy respectively.”¹¹¹ The EU has thus far been unsuccessful at pursuing these energy efficiency actions because there is little financial incentive for investment in energy efficient industrial buildings.¹¹² Nonetheless, the EU identified energy efficiency initiatives as one of several ways to implement the Paris Agreement.¹¹³ The European Commission advisor stated

110. Jones-Boutaleb, *supra* note 92.

111. Energy Security Strategy, *supra* note 102.

112. Anonymous, EU, *supra* note 106.

113. *The Road from Paris: Assessing the implications of the Paris Agreement and accompanying the proposal for a Council decision on the signing, on behalf of the European Union, of the Paris agreement adopted under the United Nations Framework Convention on Climate Change*, EUROPEAN COMMISSION, <https://ec.europa.eu/transparency/regdoc/rep/1/2016/EN/1-2016-110-EN-F1-1.PDF> (last visited Dec. 15, 2016).

that a 1% increase in energy efficiency results in a 2% reduction in gas imports.¹¹⁴ Additionally, other estimates predict a reduction in gas imports as high as 2.6%.¹¹⁵

The Energy Efficiency Financial Institution Group (EEFIG), an expert group set-up by the European Commission and United Nations Environment Programme Finance Initiative, reports that Europe can save “10 to 15% of energy by 2030 with appropriate energy efficiency measures.”¹¹⁶ NATO would benefit from such measures because European gas imports could be reduced anywhere between 20-39%, thereby reducing the leverage Russia could apply through its gas exports. Furthermore, assuming NATO targeted gas imports from Russia for reduction, and using the 2012-2015 natural gas import values, this could result in anywhere between \$16.6 billion and \$32.37 billion in lost Russian natural gas export revenues over a four year period.¹¹⁷ This loss of gas export revenues would cause Russia to either find new markets, new revenue streams, or cope with a new status quo by offsetting the losses through reduced expenditures as it has recently been forced to do.¹¹⁸

Estimates of how much investment is needed to achieve energy efficiency savings vary by source and target date for completion (i.e., 2020, 2030, 2040, 2050); however, the EFFIG reports that European energy efficiency action requires investing “\$1.3 trillion in energy efficiency in buildings from 2014-2035 and \$154 billion in energy efficiency in industry – almost doubling current investment trends.”¹¹⁹ This is an annual expenditure requirement of \$62 billion for the next nineteen years. NATO should conclude that targeted funding of these projects for the dual purposes of fulfilling the Paris Agreement requirements while simultaneously reducing Russian federal budget revenues is a worthwhile endeavor.

B. Increase the Diversity of Energy Supply Routes

“In European energy security, geography matters. States located in the center of Europe have access to more supply options . . . than those located on Europe’s

114. Anonymous, *supra* note 106.

115. Energy Efficiency Saving Energy, Saving Money, European Commission, <https://ec.europa.eu/energy/en/topics/energy-efficiency> (last visited Dec. 15, 2016); *Energy Efficiency and its contribution to energy security and the 2030 Framework for climate and energy policy*, EUROPEAN COMMISSION, https://ec.europa.eu/energy/sites/ener/files/documents/2014_eeec_communication_adopted_0.pdf.

116. *Energy Efficiency – The First Fuel for the EU Economy*, ENERGY EFFICIENCY FINANCIAL INSTITUTIONS GROUP, <https://ec.europa.eu/energy/sites/ener/files/documents/Final%20Report%20EEFIG%20v%209.1%2024022015%20clean%20FINAL%20sent.pdf> (last visited Dec. 15, 2016).

117. As discussed in Part I.C the Russian revenues from exporting NATO natural gases to NATO allies from 2012-2015 were \$83 billion. A 20% reduction of revenue is \$16.6 billion. A 39% reduction is \$32.37 billion.

118. See, e.g., Part I.C (Russia has been forced to reduce its federal expenditures by 5% and 10% in 2014 and 2016 respectively as a result of, at least in part, reduced oil and gas export revenues).

119. Efficiency Financial Institutions Group, *supra* note 116.

periphery.”¹²⁰ As noted in Part III, optionality significantly reduces threats to the energy security of these peripheral states.¹²¹ The EU energy security strategy has identified several still pending natural gas projects that would create optionality for NATO allies.¹²² These projects, unlike the energy efficiency projects, are eligible to receive funding grants from the EU agency Connecting Europe Facility (CEF). CEF is an EU funding instrument that targets, among other things, trans-European energy infrastructure for investment.¹²³ CEF estimates the European gas transmission infrastructure requires €70 billion (or about \$73.9 billion) of investments.¹²⁴

CEF’s targeted funding grants for developing gas transmission infrastructure demonstrate that the EU, which shares twenty-two members in common with NATO, believes energy security cannot be left exclusively to market forces. CEF funding does not, however, pre-empt the need for NATO financing of energy security projects for two reasons. First, CEF funding will not entirely finance the development of gas transmission infrastructure required for optionality. CEF’s total budget for all energy projects (e.g., electricity and gas) is €5.35 billion for 2014-2020, but it estimates the total required investments for all these energy projects is at least €210 billion.¹²⁵ Second, as noted above, CEF financing is done with an eye towards promoting growth, jobs and competitiveness rather than how to best protect NATO allies from abusive Russian energy export policies. In contrast, NATO financing can be targeted to ensure completion of projects that will create optionality and reduce Russian leverage over a NATO allies.

One example of such a project is the Gas Interconnection Poland–Lithuania (GIPL).¹²⁶ This interconnector would “integrate the gas systems of the Baltic Sea region into the internal EU gas markets.”¹²⁷ The benefit of this for NATO is that it would end the gas isolation of NATO allies Estonia, Latvia, Lithuania and Poland, by further diversifying their gas sources and would increase their energy security.¹²⁸ The total cost of construction is estimated to be €558 million; however, CEF has agreed to provide a grant for €295 million leaving €263 million (or about \$314.3 million) left for financing.¹²⁹

120. Shaffer, *supra* note 15, at 184.

121. Anonymous, *supra* note 106.

122. European Commission, *supra* note 10.

123. CONNECTING EUROPE FACILITY (CEF)–EUROPEAN COMMISSION, INNOVATION AND NETWORKS EXECUTIVE AGENCY, <https://ec.europa.eu/inea/en/connecting-europe-facility> (last visited Dec 14, 2016).

124. CEF–Energy, <https://ec.europa.eu/inea/en/connecting-europe-facility/cef-energy> (last visited Dec 14, 2016).

125. *Id.*

126. European Commission, *supra* note 10.

127. *End of Energy Isolation in the Baltics: How the Gas Interconnector Poland-Lithuania (GIPL) Works*, EUROPEAN COMMISSION, http://europa.eu/rapid/press-release_MEMO-15-5845_en.htm (last visited Dec. 14, 2016).

128. *Id.*

129. *Id.*

Another example is the Czech Republic-Poland Interconnector.¹³⁰ This project (currently known as “Stork II”) would provide optionality for the Czech Republic and Poland NATO allies.¹³¹ Its estimated cost is €3 million with an anticipated CEF grant of €1.5 million leaving €1.5 million (or about \$1.6 million) left for financing.¹³²

Yet a third project is the Poland-Slovakia interconnector.¹³³ This interconnector between two NATO allies—along with the Czech Republic-Poland interconnector—will enable gas flows not only between the Baltic and Adriatic, but also from the NATO allies Denmark, Netherlands, and Germany.¹³⁴ This drastically increased optionality for regional allies will directly benefit NATO.¹³⁵ The estimated cost of the Poland-Slovakia interconnect is €9.2 million with an anticipated CEF grant of €4.6 million leaving €4.6 million (or about \$4.9 million) left for financing.¹³⁶

A final example is the trans-Anatolian Natural Gas Pipeline Project (TANAP) pipeline that interconnects the NATO ally Turkey with Azerbaijan in order to allow Turkey to import natural gas from the Caspian Sea.¹³⁷ This natural gas will then be available to the rest of the EU through the “Trans-Adriatic Pipeline” (TAP).¹³⁸ The TAP pipeline, already under construction, will connect NATO allies Greece and Italy to the TANAP pipeline.¹³⁹ The benefit of TANAP, as it will work in conjunction with TAP, to NATO is that it will create optionality for three NATO allies and diversify their suppliers of natural gas by connecting their energy market to Azerbaijan natural gas exports.¹⁴⁰ The TANAP project is estimated to cost €5.2 million with an estimated CEF grant of €2.6 million leaving €2.6 (or about \$2.8 million) for financing.¹⁴¹

130. European Commission, *supra* note 10.

131. European Commission, *Preparatory studies for the Poland-Czech Republic interconnection Libhošť (CZ)–Hať (CZ-PL)–Kędzierzyn (PL) (Stork II)*, INNOVATION AND NETWORKS EXECUTIVE AGENCY, <https://ec.europa.eu/inea/en/connecting-europe-facility/cef-energy/projects-by-country/multi-country/6.1.1-0054-czpl-s-m-14> (last visited Dec. 14, 2016).

132. *Id.*

133. European Commission, *supra* note 10.

134. *Id.*

135. *See id.*

136. Connecting Europe Facility, *Preparatory Studies and Engineering Works for the Poland - Slovakia Gas Interconnection*, https://ec.europa.eu/inea/sites/inea/files/fiche_6.2.1-0065-plsk-s-m-14_final_0.pdf (last visited Dec. 15, 2016).

137. European Commission, *supra* note 10.

138. TRANS ADRIATIC PIPELINE, <https://www.tap-ag.com/the-pipeline> (last visited Dec. 15, 2016).

139. EUROPEAN COMMISSION, GAS INTERCONNECTION, SOUTHERN AS CORRIDOR, https://ec.europa.eu/energy/sites/ener/files/documents/pci_7_1_3_en_2015.pdf (last visited Dec. 15, 2016).

140. European Commission, *supra* note 10.

141. European Commission, *Engineering studies for TANAP SCADA System and Crossings under Dardanelle Strait and Evros River*, INNOVATION AND NETWORKS EXECUTIVE AGENCY, <https://ec.europa.eu/inea/en/connecting-europe-facility/cef-energy/projects-by-country/turkey/7.1.1-0014-tr-s-m-15> (last visited Dec. 14, 2016).

The net effect of these projects would considerably increase optionality for NATO allies, thereby degrading Russia's ability to unilaterally disrupt the gas supply to a specific country. As noted in Part III, a large issue for finding financing for these optionality projects is that these pipelines lack sufficient potential to provide attractive returns on investments because they will often be idle. NATO should fill the void and provide the required funding. After all, NATO defense expenditures often procure weapons that sit idle but nonetheless serve as a deterrent to aggression, such as nuclear weapons. NATO should now spend on pipelines that very well may sit idle but provide an effective response to abusive Russian energy export practices.

C. Oil Dependency

Noticeably absent from the proposals are projects concerning dependency on Russian oil exports. There are several reasons for their omission. First, the advisor to the European Commission believes gas security is a more pressing concern than oil security because the oil infrastructure is presently better suited to respond to supply disruptions than the natural gas infrastructure.¹⁴² Second, it might be disastrous to "short" the Russian economy completely. By focusing first on gas NATO would mitigate the risk of weakening Russia to such a degree that it suffers from an only intensified the nationalistic desire to become more powerful. Finally, by maintaining the status quo vis-à-vis Russian oil exports, NATO leaves itself an opportunity, should the need arise, to punish Russia (e.g., sanctions on oil exports) in a significant manner as evidenced by the current sanctions discussed in Part I.C.

D. Why .4%

The .4% figure is appropriate for two reasons. First, as discussed in Part IV.A, the lion's share of proposed spending will be on energy efficiency at an annual estimated cost of \$62 billion. An additional estimated \$73.9 billion of total investment is required for improvement of gas transmission infrastructures as discussed in Part IV.B. If the revised spending requirement had been implemented and adhered to in 2012 through 2015, NATO would have expended the following sums on energy security in each respective year: \$63.9 billion, \$64.1 billion, \$65 billion, and \$63.8 billion.¹⁴³ Using these historic figures it is fair to conclude that the .4% spending requirement would enable NATO to annually spend \$62 billion on energy efficiency with a reasonable balance to spend annually on optional projects. Second, as noted in Part II.B, it is apparent that the current 2% spending guideline serves a greater role as an indicator of political will among the NATO allies than as a benchmark grounded in some measure of NATO allies' military effectiveness. The .4% spending requirement still serves as an indicator of political will, while having the additional benefit of being grounded

142. Anonymous, *supra* note 106.

143. NATO, *supra* note 76 (data extrapolated by author).

in the underlying reality that NATO allies are in need of an energy security strategy. Therefore, and in consideration of the related Paris Agreement requirements, if allies are unwilling to spend .4%, then their political will to positively contribute to the alliance while retaining the benefits of being a NATO ally must certainly be questioned.

E. Russia's Likely Response

The World Bank reports that “Russian exports, especially oil and gas, have [already] been gradually shifting away from Europe and toward China and the rest of Asia” and these initiatives would likely hasten that development.¹⁴⁴ Despite this conclusion, the current Russian exports to Asia are predominantly concerned with oil.¹⁴⁵ Furthermore, investors have questioned Russia’s ability to construct adequate infrastructure to make a larger market shift to Asia in light of Russia’s current financial crisis discussed in Part I.C.¹⁴⁶ Therefore it is unlikely that Russia would be able to replace the revenue lost from decreased exports to NATO in the immediate future. Russia’s most likely response is, accordingly, to adapt to the new status quo and offset revenue losses with reduced expenditures until or unless it can enter into new export markets.

A more concerning possibility is that by reducing the financial ties between Russia and NATO, these initiatives make armed conflict between the two more likely. Although this is the most dangerous response, it is also the least likely. Part I.C explained that oil and gas trade between Russia and NATO from 2012 through 2015 provided Russia with \$712 billion in revenues. Part IV.A explained that, by the most aggressive estimate, the proposed energy security initiatives would have reduced those revenues by a comparatively modest \$32.37 billion. As discussed in the preceding paragraph, it is unlikely that Russia could quickly replace these revenues in the event they were lost as a result of an armed conflict with NATO. The financial disincentives for an armed conflict between NATO and Russia would thus remain a strong deterrence to a breach of the peace between Russia and NATO.

F. Accounting Mechanism

To ensure this the revised spending requirement is satisfied, NATO allies should coordinate their spending on energy security projects with the EU through NATO headquarters. NATO headquarters would also record NATO members that continue to spend on defense expenditures at or above the 2% guideline. NATO headquarters would then serve as the gate keeper through which a given NATO

144. *Russian Economic Report: The Long Journey to Recovery*, *supra* note 42.

145. Eric Yep, *Russia to Pump Up Oil Exports to Asia*, WALL STREET JOURNAL, <http://www.wsj.com/articles/russia-to-pump-up-oil-exports-to-asia-1417676709> (last visited Dec. 15, 2016).

146. *Id.*

ally could (or could not) invoke Article 5 of the NATO treaty pursuant to the proposed spending requirement enforcement mechanism.

CONCLUSION

NATO has an opportunity to peacefully and effectively respond to recent Russian aggression. Doing so requires NATO to recognize that, as a large purchaser of Russian oil and gas exports, it is well positioned to utilize a “whole of government” approach to the Russian threat. NATO should adopt the revised spending requirement in order to give effect to a “whole of government” response to Russian aggression. The revised spending requirement would reduce the amount of money flowing from NATO countries to the Russian government and ultimately to the Russian military. The revised spending requirement would further increase NATO’s resiliency to Russia’s abusive energy export policies, and would have the additional positive effect of assisting in realizing the Paris Agreement’s requirements.