

Energy Security and Germany's Response to Russian Revisionism:

The Dangers of Civilian Power

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Abstract: *This article examines the impact of German dependence on Russian gas supplies for Europe's ability to apply effective sanctions against Russia. It demonstrates that by focusing on the environmental dimensions of energy policy and a policy of rapprochement with Russia, Germany has neglected the security of supply implications of its dependence on Russian gas. The article argues that Germany's excessive energy dependence on Russia has limited the ability of the EU to challenge Russian revisionism by targeting its energy sector through sanctions. The article makes a number of energy policy recommendations which will be essential for Germany to avoid undue Russian influence on its foreign and security policies. The article concludes by exploring the utility of Neoclassical Realism in understanding Germany's approach to energy security. In doing so it highlights the dangers of allowing ideology to cloud a sober assessment of the imperatives of the balance of power.*

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Introduction: Russian energy exports and Germany's response to the Ukraine-Russia crisis

The emergence of Russia as a revisionist state determined to re-exert its status as the predominant power in post-Soviet space signals the inception of a dangerous era in European security. Russia's use of military force in Crimea and support for pro-Russian separatists in eastern Ukraine raises the threat that it may repeat such actions in other east European and Central Asian states with large Russian minorities. Given the inappropriateness of military action, economic sanctions, despite their questionable effectiveness, offer the best coercive tool that the Western powers can employ to force change in the strategic calculus of the Russian foreign policy elite.¹ Due to the widespread domestic support for President Vladimir Putin's intervention in Ukraine and the capacity of the Russian core executive to mould public opinion, only sanctions which significantly hit living standards by targeting revenues from Russia's oil exports will have a tangible impact on Russian policy.²

EU sanctions have targeted individuals close to President Putin and Russia's banking, defence and energy sectors by restricting access to capital markets, banning the export of oil exploration technology and arms exports.³ The sanctions are, however, insufficient to force change in Russian foreign policy. While blocking the transfer of technological expertise in oil

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exploration will cause difficulties for Russia, the technology itself can be sourced from China.⁴ Restrictions on Russia's ability to access international financial markets have played a role in the recent slowdown of the Russian economy, however the drop in economic growth is also the result of falling oil prices, lack of structural reforms to the Russian economy and poor investment in infrastructure and research and development.⁵ In short, EU sanctions have shied away from reducing imports of Russian natural gas and oil, which form the bedrock of the Russian economy and have been too weak to incite change in Russian policy.

The major Western powers, who have divergent commercial and energy relationships with Russia, have displayed differentiated willingness to impose tough sanctions on Russia's energy sector. The weak US trade and energy relationship with Russia restricts its ability to apply sanctions against Russia.⁶ However, the EU is a key market for Russian oil and gas exports which, at face value, endows Europe with the potential to place crippling sanctions on Russia. The EU imports 35 percent of its crude oil and 30 percent of its natural gas from Russia.⁷ Although Europe would be able to compensate for Russian oil imports through tanker deliveries, its ability to target Russian oil exports is compromised by the difficulties that Europe faces in diversifying gas imports.

Some EU states, such as the UK and France, import relatively little gas from Russia, however others, including Germany and several CEE states are highly-dependent on Russian gas.⁸ This divergent dependence on Russian gas imports has an important impact on the willingness of key European states to place sanctions on Russia's energy sector. Britain has been keen to avoid jeopardising Russian investment in the City of London and also has commercial interests in Russia that was the UK's 14th largest export market in 2013.⁹ Hence during sanction negotiations in 2014 the UK pushed for more stringent sanctions covering gas and oil imports and arms exports.¹⁰ France, in contrast, has championed financial sector sanctions, while seeking to minimise the impact on its armaments industry.¹¹

Of the major West European powers, Germany has been most active in attempting to limit EU sanctions against Russia's energy sector.¹² In initial sanction negotiations Germany was particularly keen to keep oil and gas off the agenda.¹³ While Russia is an important market for German products and services, German dependence on Russian oil and gas is especially pronounced, accounting for 39 percent of German oil imports and 36 percent of gas imports.¹⁴

Chancellor Angela Merkel has threatened Russia with further sanctions should it not stem the flow of militants and weapons into eastern Ukraine, yet Germany is unwilling to back measures which could have an immediate impact on Russian revenue from energy exports.¹⁵

Although energy has a significant impact on national security, the relationship between energy security, especially gas supplies, and European foreign policy decision-making has received limited scholarly attention.¹⁶ Hence this article breaks new ground by examining the impact of energy security on German policy toward EU sanctions against Russia. This issue is central to European security. Given Russia's failure to adhere to the terms of the Minsk agreements, the need to place more severe sanctions on Russia is likely to re-emerge. German support for sanctions targeting Russia's oil and gas sectors will be essential in such a context.¹⁷ Europe's differentiated dependence on Russian gas threatens not only to undermine the cohesion of the EU in tackling Russian revisionism, but will also have important knock-on effects for European states' willingness to undertake more extensive pooling and sharing of military forces and capabilities through the EU's Common Security and Defence Policy and NATO's Smart Defence.¹⁸

The article begins by examining Germany's broader post-Cold War Russian policy and its impact on German policy toward sanctions against Russia. It highlights that during the early post-Cold War era Germany focused on the capacity of economic interdependence to foster change in Russian domestic and foreign policies. The article finds that while German policy is now characterised by a more sober assessment of Russian intentions, the material path dependencies that rapprochement in German-Russian relations has established, particularly the emphasis on affordability over security of supply in gas imports, limits Germany's ability to place coercive pressure on Russia.¹⁹ The article proceeds by demonstrating how the emphasis on renewable energies and the poor Europeanisation of German energy policy is a strategic miscalculation that will worsen Germany's reliance on Russian gas. The article makes two recommendations for German energy policy to enhance security of supply which will be vital in to ensure that the EU is able to respond to Russian revisionism in a more effective manner. The conclusions reflect upon the theoretical implications of the analysis. They uncover important implications for the study of German foreign and security policy by illustrating the utility of a Neoclassical Realist framework for analysis that challenges the dominance of Constructivist approaches, especially the concept of 'civilian power'. It

highlights, in particular, the dangers of allowing ideology and short-term domestic and economic imperatives to guide foreign and security policy decision-making.

Germany's Russia policy: from special relationship to scepticism

German policy toward Russia has undergone significant change during the post-Cold War era, from rapprochement through enhanced commercial ties to wariness of Russia's strategic ambitions. Buoyed by gratitude to Russia for supporting reunification, Germany sought a 'strategic partnership' with Russia under Chancellor Gerhard Schroeder (1998-2005).²⁰ Although Foreign Minister Joschka Fischer (1998-2005) was critical of Russia's human rights record, the Chancellor's Office took the lead in defining Germany's relationship with Russia.²¹ Chancellor Schroeder's close personal relationship with President Putin, Germany's growing demand for gas and the interests of German energy companies in expanding their role in importing Russian gas to Europe culminated in the 2005 agreement to develop the Nord Stream gas pipeline allowing Russia to transport gas directly to Germany.²² However, Nord Stream endowed Moscow with greater ability to control the European energy market by separating the energy supplies of Eastern and Western Europe.²³

During the CDU/CSU/SPD Grand Coalition (2005-09), the Foreign Ministry under Frank-Walter Steinmeier played a more active role in Germany's Russia policy and provided an underlying narrative to frame the strategic partnership. Steinmeier adopted a policy of *Wandel durch Verflechtung* (change through interdependence) in German-Russian relations that displayed close parallels with *Ostpolitik* and was also rooted within civilian power approaches to foreign policy which were especially prominent within the German foreign ministry.²⁴ Steinmeier sought to use German economic influence as Russia's second largest export market to encourage democratic political reforms and lock Russia into Western political and economic practises. *Wandel durch Verflechtung* was framed as dovetailing with the 1997 EU Partnership and Cooperation Agreement principles of promoting democratic transformation and economic reform in Russia and as important contribution to EU Russian policy.²⁵ However, Germany's Russian policy was insufficiently Europeanised and by the end of 2005-09 Grand Coalition Germany had become Russia's closest European partner, amounting to what many commentators termed a 'special relationship'.²⁶

The 2009 election of the CDU/CSU/FDP coalition signalled the beginning of a shift in Germany's Russian policy. Chancellor Merkel holds a sceptical opinion of Russian intentions, especially following Russia's 2008 invasion of Georgia.²⁷ Accordingly, the 2009-13 CDU/CSU/FDP coalition agreement did not focus on German-Russian relations and eschewed references to a strategic partnership.²⁸ Nevertheless, Merkel saw in the election of President Dmitry Medvedev (2008-12) hope that democratic reforms would be bolstered and that a long-term transformation of Russian-European relations might take place.²⁹ Hence the 2009-13 FDP/CSU/CSU coalition did not challenge the overall approach of *Wandel durch Verflechtung*.

The 2013 CDU/CSU/SPD coalition agreement devotes an entire sub-section to German-Russian relations.³⁰ While the sub-section outlines Germany's intention to continue to seek partnership, it also highlights the need for a more critical approach to Russia's democratic reforms. Crucially, it recognises the need to avoid being drawn into a relationship of dependence on Russia and that any 'special relationship' should give way to a more coordinated approach to Russia through the EU. The agreement indicates a realisation that *Wandel durch Verflechtung* has rendered little tangible change in Russian domestic and foreign policy and that the 'special relationship' is over.³¹

Yet Germany's approach to the Ukraine-Russia crisis continues to be characterised by ambiguity. Russian aggression is met with strong rhetoric, but unwillingness to champion sanctions on Russia's energy sector which could force change in foreign policy. Germany must, alongside its European partners and the US, send unequivocal signals to Russia that military aggression and arming insurrection movements will not be tolerated on the European continent. The reticence of the core executive to impose sanctions which target the Russian people and to ensure the maintenance of a multilateral approach to sanctions have played a role in informing Germany's restrained approach.³² However, as the following sections demonstrate, the material forces unleashed by *Wandel durch Verflechtung*, particularly dependence on Russian gas, place significant constraints on Germany's ability to apply sanctions against Russia's energy sector and provide a powerful incentive for a moderate stance toward the severity of sanctions.

Oil exports: a difficult but potent tool to leverage against Russia

Russia's economic dependence on oil exports to Europe grants European states, especially Germany, strong leverage over the Russian economy. In 2012 oil revenues contributed to 42 percent of Russia's state budget and in 2013 80 percent of Russian oil exports went to European countries.³³ Germany is a key consumer of Russian oil which accounts for 39 percent of Germany's oil consumption.³⁴ The recession initiated by the 2014 drop in oil prices has demonstrated the dependence of the Russian economy on oil revenue and the potential pressure that European states could exert on Russia should they choose to limit Russian oil imports.³⁵ Nevertheless, although Russia would suffer the most serious economic consequences of a reduction of oil exports to Europe, such sanctions would not be without consequences for Germany and Europe.

First, while Russian oil could be replaced by supplies from the world market, much of Russian oil is delivered to Germany and other European states through pipelines³⁶ Compensating for Russian pipeline oil through tanker deliveries would lead to increased costs for consumers.³⁷ The lack of refinery capacity in Balkan states, such as Bulgaria, would also make it difficult for such states to receive tanker deliveries.³⁸ Second, Russia is establishing new oil export customers who will reduce its dependence on the European market over the medium- to long-term. In June 2013 Russia signed an agreement with China to export \$270 billion of oil over a 25-year period.³⁹ This deal will form part of an increasing trend of Russian oil exports to the East over the next decade and Russia intends to double oil sales to Asia by 2035.⁴⁰

However, these difficulties in exploiting Russian dependence on oil exports to Europe are not insurmountable and oil, for the time being, forms a key tool for European states to place pressure on the Russian economy. Nevertheless, as the following sections highlight, it is Russia's ability to damage the German economy by restricting gas exports that forms the most significant limitation on Europe's capacity to place hard-hitting sanctions on the Russian oil sector.

Germany's dependence on Russian gas: a strategic miscalculation

In 1990 natural gas accounted for 15.4 percent of Germany's Total Primary Energy Supply (TPES).⁴¹ By 2010 it constituted 22 percent of TPES and is predicted by the International Energy Agency (IEA) to increase to 24 percent by 2025.⁴² The construction of gas pipelines during the 1970s and early 1980s left Germany reliant on Russia for 17 percent of its gas

imports upon reunification.⁴³ However, decisions taken at the height of 'special relationship' with Russia, notably to construct Nord Stream and to emphasise affordability over supply security, deepened this dependence. Germany now relies on Russia for 36 percent of its natural gas imports.⁴⁴ German gas companies have also negotiated favourable gas prices with Gazprom compared to CEE states, thereby providing a strong incentive for Germany to neglect supply security.⁴⁵

The likelihood of Russia successfully using gas supplies as a tool of foreign policy against Germany appears, at first glance, to be low. Germany has gas storage facilities with a capacity of 20.4 billion cubic meters (Bcm), shielding it from the immediate effects of a Russian shutdown for several months or weeks (depending on weather conditions).⁴⁶ Furthermore, commentators emphasise the importance of gas exports to the Russian economy which comprise some five percent of Russia's national budget.⁴⁷ As the German Minister of Economic Affairs and Energy, Sigmar Gabriel argues: 'even in the darkest hours of the Cold War, Russia kept to its contracts'.⁴⁸

However, this relaxed approach to the threat of Russian coercion is misguided. First, Germany would come under pressure to share its gas reserves with CEE states in the event of crisis. Second, as outlined above, German dependence on Russian gas was less pronounced during the Cold War. Third, the geopolitical context of German-Russian relations has changed significantly since the Cold War, creating greater opportunities for Russia to use gas exports as a coercive tool against Germany. During the Cold War the US was highly-committed to defending Europe's territorial integrity. While the US is unlikely to rescind its commitment to the collective defence of NATO, the growing Asia-Pacific focus of US security policy will leave Europe to pick up a greater share of burden of the security burden within the Alliance. Given the inability of many European states to meet NATO's two percent of GDP target for defence spending and the limited successes of NATO and EU pooling and sharing initiatives, Europe may struggle to provide security for its Eastern members.⁴⁹ Furthermore, Russia's use of military aggression to secure influence in post-Soviet space points to its status as a revisionist power that will not easily rescind geopolitical ambitions under threat of sanctions, unless they are highly-punitive.⁵⁰ In addition while gas sales contribute to five percent of Russia's national budget, this figure pales in comparison to oil which comprises half the revenue of the Russian state.⁵¹

Finally, Russia is beginning to reduce its dependence on Western Europe for gas exports. In May 2014 Russia signed a deal to export 38 Bcm of gas annually to China from 2018.⁵² This agreement was followed by a November 2014 agreement to supply China with a further 30Bcm of gas per year.⁵³ While these exports are small compared with the 178.6 Bcm of gas exported annually to Europe, Russia plans, beyond 2018, to quintuple overall gas exports to Asia by 2035.⁵⁴ Asian exports will be accompanied by an increase in liquefied natural gas (LNG) exports to the Middle East.⁵⁵ In short, Russia will be in a stronger position to use gas as a political bargaining chip over the medium-term. Yet, as the following sections highlight, Germany, the major West European power most exposed to Russian gas imports, has taken insufficient measures to enhance supply security.

The over-optimism of the Energiewende

The first warning signs of the dangers of dependence on Russian gas emerged in the January 2006 Russia-Ukraine gas conflict. Following this crisis the German government initiated an energy policy review resulting in the 2007 Integrated Energy and Climate Programme (IECP). The IECP contained measures to enhance energy efficiency and increase the proportion of renewable energy in Germany's electricity supply from 13 percent to 25-30 percent by 2020.⁵⁶ However, while the Foreign Ministry played a stronger role in the energy policy review than in previous energy policy decision-making, it was dominated by advocates of *Wandel durch Verflechtung*. As a consequence, the IECP reflected a compromise between the Environment Ministry's concerns about climate change and the Ministry of Economics and Technology's focus on energy affordability.⁵⁷

The 2009 Russia-Ukraine gas crisis and concerns about climate change spurred the CDU/CSU/FDP coalition to launch a new energy policy review.⁵⁸ However, upon its release the 2010 Energy Concept focused, like the IECP, on tackling climate change rather than dealing explicitly with supply security and gas import diversification. The 2010 Energy Concept, heralded as an '*Energiewende*' (energy transition), set even bolder renewable targets than the IECP, aiming to reduce reliance on coal and gas by achieving 30 percent of German gross energy consumption from renewables by 2020 and 60 percent by 2050.⁵⁹ Between 2011 and 2013 Germany witnessed a one third drop in the amount of electricity produced from gas as

solar power began to provide power during times of peak consumption.⁶⁰ However this progress in the reduction of gas consumption will be difficult to sustain.

Germany's ability to meet the targets of the Energy Concept is uncertain due to the *Energiewende's* financial and technical complexities.⁶¹ Germany is, for example, facing difficulties in attaining sufficient electricity storage capacity during lulls in energy production. Solving this problem will be problematic due to the role of wind power in the *Energiewende* that cannot be easily captured by batteries.⁶² Alternative technologies for electricity storage remain under development.⁶³ Hence in its 2013 report on Germany the IEA notes that Germany will become more reliant on gas over the coming decade as it offers the best balance of cost and carbon-dioxide emissions when offsetting fluctuations in wind and solar output.⁶⁴

Crucially, the German government is finding it increasingly difficult to implement the *Energiewende* as costs spiral. In 2014 consumers paid €23.6 Billion through the Renewable Energy Surcharge (EEG) to help fund the *Energiewende* and households have experienced an 80 percent increase in real-term electricity prices since 2000.⁶⁵ While the EEG was reformed in April 2014 to force energy-intensive industry to make a stronger contribution, the costs of the *Energiewende* are set to rise, with negative implications for economic growth.⁶⁶ Germany's electricity distribution and transmission networks also require heavy investment to transfer energy from north of Germany to the south, where the majority of German industry is based.⁶⁷ Progress in upgrading these networks has been patchy. This is due to fears about the costs, which will amount to between €47.5 billion and €72.5 billion over the next ten years and add a greater burden to consumers.⁶⁸ Poor cooperation between the German regions and the Federal Network Agency and local opposition has also undermined network improvements.⁶⁹ Tellingly, Sigmar Gabriel outlined in April 2014 that Germany is facing the failure of the *Energiewende* due to an underestimation of its complexity and cost.⁷⁰

Germany's ability to wean itself off Russian gas has also been compromised by the 2011 decision to accelerate the phase-out of nuclear power that, in 2010, comprised 22 percent of electricity production.⁷¹ This has led to an increase in German coal consumption for electricity production, hence it is expected that the percentage of gas in the electricity mix is unlikely to fall further to ensure that Germany can reduce its coal consumption.⁷² Furthermore, gas provides just under 50 percent of German heating. Building retrofitting and alternative heat

sources will lower total German gas consumption from a level of 900 terawatt hours (TWh) in 2013 to 683 TWh by 2025.⁷³ While these reductions would appear to go some way to significantly offsetting Germany's 315 TWh gas imports from Russia, projected reductions in Dutch and Norwegian gas imports during this period as North Sea gas supplies dwindle will leave Russian gas an essential part of Germany's energy mix.⁷⁴ In short, it is unlikely that Germany will meet targets of the 2010 Energy Concept and will continue to rely heavily on Russian gas.

The failure to Europeanize the Energiewende and champion EU energy supply security initiatives

German dependence on Russian gas has also been enhanced by the difficulties that Germany has faced in developing the *Energiewende's* European dimension and its failure to provide sufficient support for the Commission's efforts to improve energy supply security.⁷⁵ Before and following the 2006/09 gas crises the Commission launched several gas supply security initiatives. These initiatives include the 2008 Second Strategic Energy Review that outlined, amongst other measures, the need to diversify gas supplies through the Mediterranean and Southern Corridor and the 2009 Third Energy Package that seeks to enhance Europe's energy efficiency and self-sufficiency by pushing ahead with the internal energy market.⁷⁶ Yet, despite these initiatives, the EU was largely unprepared for the energy security implications of the Ukraine-Russia crisis. Several major problems persist in EU energy policy which exacerbate dependence on Russian gas and weaken the EU's ability to challenge Russian revisionism.

First, the energy relations of European states with external suppliers are fragmented, with individual member states negotiating separate deals with Gazprom and other energy suppliers. Second, the EU has been slow to diversify gas imports, with Russia remaining the dominant source. The South Stream project, that would have supplied Europe with 63bn cubic meters of Russian natural gas per year, was cancelled in December 2014 following opposition from the Commission that found the project in contravention of EU rules on unbundling gas supply and transport.⁷⁷ However, EU states have been slow to act on the Commission's warnings about the security risks associated with high-levels of dependence on Gazprom.

Third, the EU has encountered serious difficulties in developing the infrastructure to allow LNG to be transferred between EU states in gas crises.⁷⁸

Fourth, European states have made limited progress in developing the 'hardware' (electricity and gas transmission infrastructure) and the 'software' (the regulation) of the internal energy market. As a consequence the EU energy market is characterised by national 'energy islands' which act to the detriment of energy efficiency and the expansion of renewable energy, limiting European energy self-sufficiency.⁷⁹ Finally, the internal energy market is undermined by the EU's poor progress in decarbonizing its economy.

Three factors have led Germany to fail to provide leadership on behalf of European energy supply security. First, the sheer weight of issues which needed to be decided during the immediate period following the launch of the *Energiewende* and phase out of nuclear power (2010-12) meant that almost weekly cabinet decisions on energy policy were held. This led to a high-degree of confusion about the implications of the *Energiewende* for Germany's European partners.⁸⁰

Second, the Foreign Ministry, that is responsible for coordinating Germany's position on EU energy policy issues, was unable to broker agreement between the Environment Ministry, that wished to place pressure on other European states to promote renewable energy, and the Economics Ministry, that wanted a stronger focus on the opportunities the EU could provide to deliver greater cost-effectiveness in energy.⁸¹ In the words of one source, the Foreign Ministry was 'screaming at both Ministries to find consensus', but to little avail.⁸² Hence EU-level agreements were often developed with little German input.⁸³ This problem was exacerbated by the lack of funding available to the Foreign Ministry during these years to appoint personnel to deal with the European implications of the *Energiewende*.⁸⁴

The problem of inter-ministerial contestation has largely been resolved through the 2013 establishment of the Ministry for Economic Affairs and Energy that has proved more adept at developing common positions with the Environment Ministry.⁸⁵ The ability of the Foreign Ministry to coordinate Germany's position on EU energy policy and negotiate with European partners has also been enhanced through the allocation of greater resources and personnel to deal with the foreign policy implications of the *Energiewende*.⁸⁶

The final and most important factor is the influence of civilian power within the foreign policy community and the consequent approach of *Wandel durch Verflechtung* with Russia that led the German political elite to fail to grasp the dangerous security ramifications of dependence on Russian gas.⁸⁷ While the 'special relationship' is over, the comparatively low prices that German companies pay for Russian gas in comparison with CEE states continue to play an important role in reducing the incentive to support EU initiatives to enhance gas supply security.⁸⁸ Hence Germany's leadership on behalf of improving European gas transmission networks and the internal energy market continues to lack urgency.⁸⁹

The way forward: the imperative of German leadership on the Energy Union

While Germany has resolved several of the factors which have undermined the Europeanisation of its energy policy, Germany must take two concrete steps to enhance gas supply security. First, although the renewable aims of the *Energiewende* are laudable, greater balance needs to be struck between gas supply security and tackling climate change. This will require a more realistic assessment of Germany's ability to reduce gas consumption and investment in alternative gas supplies. LNG, when combined with increased imports from Norway, could compensate for Russian gas should Russia restrict gas exports to Germany.⁹⁰ Hence Germany must develop the long-proposed LNG terminal in Wilhelmshaven to allow it take advantage of LNG imports, should Russia use gas supplies in a coercive manner. Under the circumstances of a shutdown of Russian gas supplies, Europe's existing LNG terminals would struggle to meet demand. Given the strong relationship between key German gas companies such as E.ON and RWE and Gazprom and the current lack of financial incentive for private sector investment in the project, this project will necessitate investment from the state.⁹¹

Second, and most importantly, as Europe's economic and political heavyweight Germany must shoulder greater responsibility for promoting the Energy Union that was launched in April 2014 by former Polish Prime Minister Donald Tusk. The Commission's Energy Union Package of February 2015 waters down contentious proposals included in the initial Polish-led initiative, including the collective bargaining of gas contracts with third parties, increasing coal consumption and fracking, which had encountered significant resistance from German policy-makers. It contains four key proposals which will be highly-beneficial to Germany and

Europe by avoiding 'energy islands', improving energy efficiency, bolstering efforts to increase the share of renewables in the energy mix and diversifying gas imports.

First, the Energy Union seeks to develop the EU's regulatory powers which will be vital in ensuring the completion of the internal energy market through the stricter enforcement of the 2009 3rd Internal Energy Market Package, particularly in ensuring the independence of energy regulators and unbundling of energy supply and distribution. The Energy Union highlights the imperative of as antitrust enforcement to stop territorial restrictions in supply contracts and the need to enforce competition law to regulate the development of energy prices. Furthermore, the Energy Union plans to reinforce the powers of the Agency for the Cooperation of Energy Regulators to strengthen its ability to guide the completion of the internal energy market.⁹² In addition, the Energy Union details the Commission's plans to more rigorously enforce the April 2014 Environmental and State Aid Guidelines, which seek to reduce the distorting effect of national renewable energy subsidies on the internal energy market.⁹³ The Energy Union also emphasizes Commission's intent to use competition law to stop below-cost regulated energy prices.⁹⁴

Second, the Energy Union outlines the plans of the Commission to support the construction of LNG terminals for CEE states and to develop the pipeline infrastructure to allow CEE states to compensate for Russian gas in the event of a gas crisis.⁹⁵ The Energy Union also prioritises establishing of greater interconnection between member-state electricity networks.⁹⁶ Given the future role of renewables in Europe's energy supply, instruments such as the Connecting Europe Facility and European Fund for Strategic Investments (which remain heavily dependent upon leveraging private sector investment) are well-suited to attracting investment for projects associated with Europe's electricity infrastructure. However, a number of investments in gas infrastructure are to be used only in crisis situations and may not generate profit over the long-term. Consequently Europe is failing to address the infrastructure bottlenecks necessary to overcome Europe's dependence on Russian gas.⁹⁷ Hence German leadership will be essential to gather support for greater EU investment in vital infrastructure projects to ensure the success of the *Energiewende* and lessen the vulnerability of CEE states to a loss of Russian gas.⁹⁸

Third, the Energy Union notes the imperative of meeting the 2009 Renewable Energy Directive (2009/28/EC) which sets national targets for the percentage of TPES to be achieved from renewables by 2020. However, the Commission's ability to enforce this directive is constrained by its failure to provide a list of interim targets for member states. German leadership will, therefore, be necessary to encourage laggard states such as France, Poland and the UK to make greater progress in meeting their targets.⁹⁹ The Energy Union also includes a number of important initiatives to help stimulate greater energy efficiency as part of a review of the EU's energy efficiency target of 30% by 2030, especially in the building and transport sectors.¹⁰⁰

Finally, the Energy Union Package highlights the importance of diversifying Europe's gas imports. Given the uncertainties surrounding the lifting of international sanctions on Iran in February 2015, the Energy Union does not mention the potential to establish gas deals with Tehran. However, the July 2015 nuclear agreement between Iran and world powers led the Commission and several EU countries, including Germany, to explore the possibility of importing 25-35 Bcm of LNG to Europe by 2030.¹⁰¹

The Energy Union Package focuses instead on the potential for the EU to increase gas imports from the Caspian Sea region, especially Turkmenistan, which holds the world's fourth largest gas supplies and has the ability to supply Europe with a significantly greater quantity of gas than Iran.¹⁰² Europe's ability to access Central Asian gas has been hampered by disputes over the Caspian Sea's legal status and the difficulty of securing agreement with Turkmenistan that prioritised exports to China and Russia.¹⁰³ However, the current political and economic contexts provide opportunities to push ahead with accessing supplies from the region.

Current pipeline projects such as the Trans-Adriatic Pipeline (completion date 2019) and Trans-Anatolian pipeline (completion date 2018), will supply Europe with 16Bcm and 10Bcm of gas per year respectively.¹⁰⁴ However, the collapse of South Stream provides an opportunity to secure investment from the private sector for the Trans-Caspian Pipeline (TCP) that will supply gas from Turkmenistan. The urgency of accessing supplies from the Caspian Sea region is also reinforced by the limited ability of European states to import North African and Iraqi gas due to political instability in the MENA region, while reserves in the Eastern Mediterranean will supply only 10Bcm of gas to the EU annually.¹⁰⁵ In addition, Turkmenistan

has also become more open to diversifying exports following recent Russian reductions in gas imports from the country.¹⁰⁶

Maros Sefcovic, the Commission Vice-President has been courting Azerbaijan and Turkmenistan to seek support for the TCP.¹⁰⁷ However, securing the agreement of these states will be a delicate process given their continued disputes over energy resources in the Caspian Sea.¹⁰⁸ Should Chancellor Merkel lend her diplomatic weight and acumen to this process, and to ensuring private sector commitment to the project in which German energy companies could play a significant role, it would greatly benefit Europe's supply security.

Conclusions: Neoclassical realism and Germany's approach to Russian revisionism

In summary, the focus on *Wandel durch Verflechtung* in German-Russian relations and the over-optimism of the *Energiewende* have led Germany to neglect gas supply security.¹⁰⁹ Inadequate German leadership on the single energy market and its failure to support the Commission's efforts to diversify gas supplies has also contributed to the excessive dependence on Russian gas displayed by several CEE states.¹¹⁰ Furthermore, the difficulties associated with the *Energiewende* are likely to leave Germany more dependent on Russian gas over the next decade and increasingly at the mercy of Russian coercion. As a source within the Ministry for Economic Affairs and Energy highlights: 'Germany will not agree to sanctions against Russian oil and gas exports. If Russia were to cut gas exports it would be catastrophic for the German economy. Gas will continue to play a central role in our energy mix in the years to come and this gives Russia a very important position'.¹¹¹

These observations raise important implications for theorising German foreign and security policy. Constructivist approaches enjoy a dominant position in conceptualising German foreign and security policy. Hans Maull's concept of civilian power that emphasises the impact of institutionally-embedded ideas rooted in Germany's past as the key driver of German decision-making is especially prominent.¹¹² The article's findings do not challenge the assertion that such ideational factors have been a central variable in shaping German policy toward Russia and energy security. Yet the article does not validate the arguments of Constructivists. Rather, it highlights the dangers of allowing ideology to cloud a rational assessment of national interests.

The findings of the article dovetail closely with the insights of Neoclassical Realism (NCR). NCR argues that the balance of power forms the key independent variable driving foreign, defence and security policy decision-making. However, NCR also argues that domestic factors including nationalism, ideology and the institutional structure of the state, form important intervening variables which slow down or speed up convergence with the imperatives of the international system.¹¹³ Should states fail to act in accordance with these imperatives they will face a loss in relative power.¹¹⁴

However, while the majority of NCR scholars focus on balance of power theory in understanding the role of systemic forces, the theory is only of limited utility in understanding why European states have united with the US to balance Russian power. Balance of power theory argues that the geographical position, economic power and population size of the major West European Powers (Britain, France and Germany) leave them subject to relatively similar pressures from the international system.¹¹⁵ However, balance of power theory also suggests that states balance primarily against capabilities, leading Neorealists such as Posen to argue that the EU, through the Common Security and Defence Policy (CSDP), is undertaking a process of 'soft balancing' US power to check the rise of a unipolar hegemon.¹¹⁶

Yet there is little evidence of 'soft balancing' by the EU over the post-Cold War era. Instead, West European states have undertaken a process of 'reformed bandwagoning' on US power, where the heavy dependence of West European states on the US security guarantee through NATO has been gradually attenuated through the development of CSDP as a means to pick up security challenges within Europe's geopolitical neighbourhood in cases of US disinterest.¹¹⁷ Hence balance of power theory must be supplemented by integrating the insights of Walt's 'balance of threat' theory which notes that an enemy (such as Russia) who is less powerful than the unipolar leader, but one who is more geographically proximate, has offensive capabilities and offensive intentions will pose a greater threat than the dominant state in the international system.¹¹⁸

However, domestic factors form important intervening variables which restrict the extent to which the Western powers are able to undertake coordinated action to tackle Russian revisionism by limiting their ability to apply effective sanctions against Russia's energy sector. As this article has demonstrated, in the case of Germany, these domestic variables have been

both ideational and material. Two ideological factors have been especially prominent. First, while Germany's efforts to tackle climate change are laudable, the dominance of the environmental lobby has fostered neglect of gas supply security. Second, the dominance of civilian power approaches within the core executive emphasising the potential for '*Wandel durch Verflechtung*' have led to a failure to recognise the importance of the security dimensions of the German-Russian energy relationship.

As balance of threat theory expects, *Wandel durch Verflechtung* has given way to greater scepticism of Russian intentions. However, it has left material path dependencies which form powerful constraints on the core executive's ability to enhance gas supply security at the national and EU levels: the desire of the German energy industry to protect its privileged relationship with Gazprom and the unwillingness of German politicians to deal with the political implications of the increased cost to consumers associated with reducing dependence on Russian gas. Hence Germany risks losing relative power over the medium-term by signalling to Russia that it is able to use force to expand its sphere of influence in post-Soviet space with relative impunity. As Rathburn notes: 'The more the state comes to be captured by parochial actors, and the more elites come to believe in alternative social constructions of reality different from the objective reality outlined by neorealism, the more severe the penalty.'¹¹⁹

It is therefore vital that gas supply security is allocated greater priority as an issue of national security in Germany. Several parliamentarians have begun to recognise the need to diversify gas supplies, including Thomas Bareiss (CDU/CSU Energy Policy Coordinator), Michael Fuchs (Deputy Chair, CDU/CSU Parliamentary Group) and Peter Ramsauer (Chair, Bundestag Committee on Economic Affairs).¹²⁰ Chancellor Merkel must champion this emerging coalition by adopting a stronger leadership role in energy security and place pressure on the Foreign Ministry and Ministry for Economic Affairs and Energy to ensure greater gas supply security.¹²¹

Such leadership will necessitate Chancellor Merkel to spend political capital. The promotion of LNG imports is viewed by prominent SPD politicians as a retreat from the *Energiewende*.¹²² In addition, domestic political imperatives may encourage Chancellor Merkel to continue to prioritise affordability over supply security. Political capital will also need to be expended on

securing the acquiescence of the German energy industry to the Energy Union.¹²³ However, Germany and Europe may pay a very heavy geopolitical price if Chancellor Merkel is not prepared to champion gas supply security.

¹ On the effectiveness of sanctions through history see D. Drezner, *The Sanctions Paradox: Economic Statecraft and International Relations* (Cambridge: CUP, 1999). On the contested utility of EU sanctions against Russia see Iana Dreyer and Nico Popescu, 'Do sanctions against Russia work?' *European Institute for Security Studies Policy Brief*, 35, 2014.

² Tatia Dolidza, 'EU sanctions policy towards Russia', CEPS Working Document No,402 available from <http://www.ceps.be/publications/feu-sanctions-policy-towards-russia-sanctioner-sanctionee%25E2%2580%2599s-game-thrones&ei=tRY5Vf6cMIH-ygOynYC4Aw&usg=AFQjCNFT2As0fgEUOn6zcE0621Gjz1iMJA&sig2=aKOOAA60DwqoraFrXbHz3A&bvm=bv.91427555,d.bGQ> (accessed 23 April 2015); Kathrin Hille 'Russia: imperialism awakes', *Financial Times* 14 March 2014, available from <http://www.ft.com/intl/cms/s/0/7ef8545c-ab65-11e3-8cae-00144feab7de.html#axzz36mDPA3q7> (accessed 17 April 2015).

³ 'Ukraine Crisis', BBC News 19 December 2014, available from <http://www.bbc.com/news/world-europe-26672800> (accessed 21 April 2015).

⁴ Interview 1, Section A2, cooperation in the IEA and bilateral energy cooperation with non-OCED states, Ministry for Economic Affairs and Energy, Berlin, 13 August 2014.

⁵ According to Russian estimates, sanctions applied by the EU against Russia in 2014 cost the country 1.5 percent of GDP. Szu Ping Chan, 'Russia remains defiant as EU sanctions and oil price fall paralyse economy', *Daily Telegraph* 21 April 2015, available from <http://www.telegraph.co.uk/finance/economics/11552014/Russia-remains-defiant-as-EU-sanctions-and-oil-price-fall-paralyse-economy.html> (accessed 23 April 2015); 'On the Edge of Recession', *Economist* 04 October 2014, available from <http://www.economist.com/news/europe/21621877-wests-sanctions-are-hitting-contracting-economy-edge-recession> (accessed 29 January 2015).

⁶ D.H. Dunn and M. McClelland 'Shale gas and the revival of American power: debunking decline?' *International Affairs* 89/6 (2013), pp.1411-1428.

⁷ 'Russia-Europe: The liquefied relationship often overlooked', *Clingendael International Energy Programme*, March 2014, available from <http://www.clingendaelenergy.com/files.cfm?event=files.download&ui=9C1E06F0-5254-00CF-FD03A39927F34043> (accessed 21 April 2015); 'Fact Sheet: Russian gas imports to Europe and security of supply', *Clingendael International Energy Programme* 2013, available from <http://www.clingendaelenergy.com/files.cfm?event=files.download&ui=9C1DEEC1-5254-00CF-FD03186604989704> (accessed 21 April 2015).

⁸ In 2013 Russia exported a total of 178.6 Bcm of natural gas to Europe. Of this 8.6 Bcm went to France; 41 Bcm to Germany and 16.6 Bcm to the UK. Dickel et al, 'Reducing European Dependence on Russian Gas', OEIS Paper, NG92, October 2014, p.3.

⁹ Angela Monaghan and Jennifer Rankin, J. 'EU and US sanctions against Russia', 30 July 2014, *Guardian*, available from <http://www.theguardian.com/business/2014/jul/30/eu-us-sanctions-against-russia-hurt> (accessed 17 April 2015); Nicholas Watt, 'UK seeking to ensure Russia sanctions do not harm City of London', *Guardian*, 3 March 2014, available from <http://www.theguardian.com/world/2014/mar/03/uk-seeks-russia-harm-city-london-document>, (accessed 17 April 2015). 'Russia's trade ties with Europe', *BBC News* 4 March 2014, available from <http://www.bbc.com/news/world-europe-26436291> (accessed 17 April 2015). 'Europe's dependency on Russian gas may be cut by energy efficiency focus', *Guardian*, 9 September 2014, available from <http://www.theguardian.com/world/2014/sep/09/europe-dependency-russian-gas-energy-efficiency-eu> (accessed 21 April 2015).

¹⁰ Rowena Mason and Patrick Wintour, 'UK to press European allies for tougher sanctions over MH17', *Guardian*, 21 July 2014, available from <http://www.theguardian.com/world/2014/jul/21/uk-europe-tougher-sanctions-russia-mh17-putin> (accessed 17 April 2015); Stefan Wagstyl, 'Merkel's harder stance on Russia fuels anxiety for companies', *Financial Times*, 3 July 2014, available from <http://www.ft.com/intl/cms/s/0/fa025df4-02b4-11e4-a68d-00144feab7de.html#axzz36mDPA3q7> (accessed 17 April 2015).

¹¹ Wagstyl, 'Merkel's harder'.

¹² Christian Oliver, 'EU fails to agree new Russia sanctions', *Financial Times*, 29 January 2015, available from <http://www.ft.com/cms/s/0/e95231f6-a7ae-11e4-8e78-00144feab7de.html#axzz3TDkZipb6> (accessed 02 March 2015).

¹³ Bertrand Benoit and Andrea Thomas, 'Germany's Merkel walks fine line in Russia standoff', *Wall Street Journal* 3 March 2014, available from <http://online.wsj.com/news/articles/SB10001424052702304585004579417242979382218>, (date accessed 21 April 2015).

¹⁴ Jeevan Vasagar and Roger Blitz, 'German exports to Russia tumble as sanctions bite', *Financial Times*, 29 October 2014, available from <http://www.ft.com/intl/cms/s/0/45eea262-5f72-11e4-a882-00144feabdc0.html#axzz3Xw5A4oMF> (accessed 21 April 2015); Richard Fuchs, 'Germany's Russian energy dilemma', *Deutsche Welle*, 29 March 2014, available from <http://www.dw.de/germanys-russian-energy-dilemma/a-17529685> (accessed 20 April 2015).

¹⁵ Interview 1.

¹⁶ B. Schaffer 'Natural gas supply stability and foreign policy', *Energy Policy* 56 (2013), pp.115.

¹⁷ Dickel et al, 'Reducing European Dependence', pp.69-70.

¹⁸ T. Dyson 'The material roots of European strategy', *Contemporary Security Policy* 34/4 (2013), pp.419-45.

¹⁹ Energy security has two dimensions: security of supply and acceptable cost. G. Bahgat, 'Europe's energy security', *International Affairs* 82/5 2006, p.965.

²⁰ Angela Stent, 'Ostpolitik Reset: How Germany is re-evaluating its relationship with Russia', *AICGS*, 7 April 2015, available from <http://www.aicgs.org/publication/ostpolitik-reset/> (accessed 24 April 2015).

²¹ 'Joschka Fischer vs Gerhard Schroeder', *Economist*, 16 July 2009, available from <http://www.economist.com/node/14041654> (accessed 9 April 2015).

²² Kirsten Westphal, 'Germany and the EU-Russia energy dialogue' in Pami Aalto (ed.), *The EU-Russian energy dialogue* (Aldershot: Ashgate, 2007), pp.108-11.

²³ Z. Baran 'EU energy security', *The Washington Quarterly* 30/4 2007, p.135

²⁴ J. Duffield 'Germany and energy security in the 2000s', *Energy Policy* 37 2009, p.4288; Gerhard Schroeder 'Wandel durch Verflechtung', *Spiegel* 12 2007. The civilian power model is grounded in a respect for law, social justice, sustainable development, and non-violent conflict resolution. It involves three core principles: an acceptance of the necessity of international cooperation to achieve foreign policy objectives; a focus on non-military, primarily economic policy tools and finally, a willingness to develop and use international structures to address critical issues of international management. The concept of civilian power overlaps with the work of Nye on the opportunities for the use of 'soft' rather than 'hard' power after the end of the Cold War. Hans Maull, 'Germany and Japan: The New Civilian Powers', *Foreign Affairs* 69:5, 1990/91, pp.91-106; Joseph Nye, *Soft Power: The Means to Success in World Politics* (New York: Public Affairs, 2004).

²⁵ R. Goetz 'Germany and Russia: strategic partners?' *Geopolitical Affairs* 4 2007, p.10.

²⁶ Markus Luettike, 'Serious tensions in German-Russian relations', *Deutsche Welle*, 29 April 2014, available from <http://www.dw.de/serious-tensions-in-german-russian-relations/a-17601809> (accessed 21 April 2015); Luke Harding, 'Germany and Russia: Likely Bedfellows', *Guardian* 25 September 2009, available from <http://www.theguardian.com/commentisfree/2009/sep/25/germany-russia-special-relationship> (accessed 21 April 2015).

²⁷ Benoit and Thomas, 'Germany's Merkel walks'.

²⁸ Wagstyl, 'Merkel's harder'.

²⁹ Ingo Mannteufel, 'Opinion: Merkel takes a stand against Putin', *Deutsche Welle*, 20 November 2013, available from <http://www.dw.de/opinion-merkel-takes-a-stand-against-putin/a-17241371> (accessed 21 April 2015); Benjamin Bidder, 'Germany-Russian Relations: Medvedev charms Merkel at Munich summit', 17 July 2009, available from <http://www.spiegel.de/international/germany/german-russian-relations-medvedev-charms-merkel-at-munich-summit-a-636653.html> (accessed 21 April 2015).

³⁰ Koalitionsvertrag, 2013, 'Deutschland's Zukunft gestalten: Koalitionsvertrag zwischen CDU/CSU and SPD', November 2013, p.118.

³¹ Interview 1; Constanze Stelzenmueller, 'Putin: Germany's former friend', *Prospect Magazine*, 22 January 2015, available from <http://www.prospectmagazine.co.uk/opinions/germany-putins-former-friend> (accessed 5 March 2015).

³² Interview 1; Interview 2.

³³ Sammy Six, 'Russia's Oil Export Strategy: Two Markets, Two Faces', CIEP Paper, 2015, p.15;p.25, available from <http://www.clingendaelenergy.com/publications/publication/russias-oil-export-strategy-two-markets-two-faces> (accessed 29 September 2015).

³⁴ Fuchs, 'Germany's Russian energy dilemma'. In 2013 Russia accounted for 7 percent of UK oil imports and 14 percent of French oil imports in 2012. UK Country Report 2014, *EIA*, available from http://www.eia.gov/countries/analysisbriefs/United_Kingdom/uk.pdf (accessed 21 April 2015); 'Energy Supply Security 2014', *IEA*, available from http://www.iea.org/media/freepublications/security/EnergySupplySecurity2014_France.pdf, (accessed 21 April 2015), p.190.

³⁵ Alan Cullison and Andrey Ostroukh, 'Russia plans deep budget cuts as revenues drop', *The Wall Street Journal*, 14 January 2015, available from <http://www.wsj.com/articles/russia-facing-budget-cuts-on-oil-price-western-sanctions-1421223776> (accessed 21 April 2015).

³⁶ 'Energy Wars: Russia halts oil deliveries to Germany', *Spiegel*, 8 January 2007, available from <http://www.spiegel.de/international/energy-wars-russia-halts-oil-deliveries-to-germany-a-458401.html> (accessed 21 April 2015).

³⁷ Interview 1.

³⁸ Ibid.

³⁹ Courtney Weaver and Neil Buckley, 'Russia and China agree \$270bn oil deal', *Financial Times*, 21 June 2013, available from <http://www.ft.com/intl/cms/s/0/ebc10e76-da55-11e2-a237-00144feab7de.html#axzz36JE4OLCa> (accessed 09 April 2015).

⁴⁰ Guy Chazan and Ed Crooks, 'Europe's dangerous addition to Russian gas needs radical cure', *Financial Times*, 3 April 2014, available from <http://www.ft.com/intl/cms/s/0/dacfd08-ba64-11e3-8b15-00144feabdc0.html#slide0> (accessed 17 April 2015).

⁴¹ J. Duffield 'The return of energy insecurity in the developed democracies', *Contemporary Security Policy* 33/1 2012, p.10.

⁴² 'Oil and gas security: emergency response of IEA countries: Germany', *IEA*, 2012, available from <http://www.iea.org/publications/freepublications/publication/GermanyOSS.pdf> (accessed 21 April 2015), pp.18-19.

⁴³ Kirsten Westphal, 'Security of gas supply: four political challenges under the spotlight', *SWP Comments* 17, June 2012; Westphal, 'Germany', p.96.

⁴⁴ Fuchs, 'Germany's Russian energy dilemma'.

⁴⁵ Glenn Kates and Li Luo, 'Russian gas: how much is that?' available from <http://www.rferl.org/content/russian-gas-how-much-gazprom/25442003.html> (accessed 22 April 2015); interview 1.

⁴⁶ 'Oil and Gas Security', p.23.

⁴⁷ O. Harsem and D-H. Claes, 'The interdependence of European-Russian energy relations', *Energy Policy* 59 2013, pp.784-91.

⁴⁸ Fuchs, 'Germany's Russian energy dilemma'.

⁴⁹ John Hemmings, 'NATO and the pivot after Wales', available from <http://www.isn.ethz.ch/Digital-Library/Articles/Detail/?id=183520> (accessed 21 April 2015).

⁵⁰ Ivan Krastev, 'Russian revisionism', *Foreign Affairs*, 3 March 2014, available from <http://www.foreignaffairs.com/articles/140990/ivan-krastev/russian-revisionism> (accessed 21 April 2015).

⁵¹ The precise contribution of gas exports to the Russian budget is unclear and ranges between 4 percent and 9 percent, Interview 1.

⁵² Sarah Lain, 'Russia's gas deal with China underlines the risks to Europe's energy security', *Guardian*, 26 May 2014 available from <http://www.theguardian.com/commentisfree/2014/may/26/russia-gas-deal-china-europe-energy-security-danger> (accessed 21 April 2015).

⁵³ Lucy Hornby, 'Putin snubs Europe with Siberian gas deal that bolsters China ties', *Financial Times*, 10 November 2014, available from <http://www.ft.com/cms/s/0/79eeabb0-6888-11e4-acc0-00144feabdc0.html#axzz3QDVJpcb4> (accessed 3 April 2015).

⁵⁴ Lain, 'Russia's gas deal'; Chazan and Crooks, 'Europe's dangerous addiction'.

⁵⁵ Chazan and Crooks, 'Europe's dangerous addiction'.

⁵⁶ Duffield, 'The return', p.10.

⁵⁷ Duffield, 'Germany and energy security', p.4288; Interview 1.

⁵⁸ Duffield, 'The return', p.13.

⁵⁹ 'Energy concept for an environmentally sound, reliable and affordable supply', Federal Ministry of Economics and Technology, 28 September 2010, available from https://www.germany.info/contentblob/3043402/Daten/1097719/BMUBMWi_Energy_Concept_DD.pdf, (accessed 14 April 2015), p.5.

⁶⁰ 'Getting out of gas', *Economist*, 26 September 2014, available from http://www.economist.com/news/business-and-finance/21620080-germanys-reliance-russian-gas-fallingbut-not-sustainably-going-out-gas?fsrc=scn/tw_ec/getting_out_of_gas (accessed 23 April 2015).

⁶¹ D. Keles, D. Moest and W. Fichtner 'The development of the German energy market until 2030', *Energy Policy* 39 2011, pp.812-25; Matthew Morey and Laurence Kirsch 'Germany's renewable energy experiment', *Electricity Journal* 27/5 2014, pp.6-20.

⁶² 'Energy concept', pp.8-10. C. Barnhart et al 'The energetic implications of curtailing versus storing solar- and wind-generated energy', *Energy and Environmental Science* 6 2013, pp.2804.

⁶³ Interview 1.

⁶⁴ 'Energy policies of IEA countries: Germany 2013 review', IEA available from <http://www.iea.org/media/executivesummaries/GermanyExecSum.pdf> (accessed 21 April 2015), p.15.

⁶⁵ Stefan Nicola, 'German power consumers to pay record green charges', *Bloomberg*, 25 August 2014, available from <http://www.bloomberg.com/news/2013-10-15/germany-increases-fee-to-fund-renewable-energy-to-record.html> (accessed 17 April 2015); Bjorn Lomborg, 'Germany's energy policy is expensive, harmful and short-sighted', *Financial Times*, 16 March 2014, available from <http://www.ft.com/intl/cms/s/0/9d6ba56a-a633-11e3-8a2a-00144feab7de.html#axzz3BL0BTIsZ> (accessed 17 April 2015).

⁶⁶ 'German cabinet adopts reform of renewable energy law', *Deutsche Welle*, 8 April 2014, available from <http://www.dw.de/german-cabinet-adopts-reform-of-renewable-energy-law/a-17550535> (accessed 07 April 2015); Interview 1.

⁶⁷ Interview 1.

⁶⁸ 'Energy policies of IEA countries', pp.11-13.

⁶⁹ 'Energy policies of IEA countries', pp.11-13.

⁷⁰ Norman Hanert, 'Wir stehen knapp vor dem Scheitern', *Preussische Allgemeine Zeitung*, 11 May 2014, available from <http://www.preussische-allgemeine.de/nachrichten/artikel/wir-stehen-knapp-vor-dem-scheitern.html> (accessed 7 April 2015).

⁷¹ J. Huenteler, T. Schmidt and N. Kanie 'Japan's post-Fukushima challenge', *Energy Policy* 45 2012, p8.

⁷² 'The costly muddle of German energy policy', *Financial Times*, 6 October 2014, available from <http://www.ft.com/intl/cms/s/0/ffa462f2-4d4b-11e4-bf60-00144feab7de.html#axzz3Y7ypnJ6X> (accessed 23 April 2015).

⁷³ Stefan Bofinger et al, 'Kurzstudie: Erdgassubstitution durch eine forcierte Energiewende', Fraunhofer-Institut für Windenergie und Energiesystemtechnik (IWES), Kassel, June 2014.

⁷⁴ Ibid.

⁷⁵ Lars-Christian Talseth, 'The EU-Russia energy dialogue', *SWP Working Paper*, FG5, 2012, available from http://www.swp-berlin.org/fileadmin/contents/products/arbeitspapiere/talseth_20120402_KS.pdf (accessed 17 April 2015).

⁷⁶ 'Council Conclusions on 'Second Strategic Energy Review: An EU Energy Security and Solidarity Action Plan'', available from:

www.consilium.europa.eu/%2Fuedocs%2Fcms_data%2Fdocs%2Fpressdata%2Fen%2Ftrans%2F106196.pdf&ei=ZZ3dVfGADMx2UqnGrpgP&usq=AFQjCNErov_eINIEr9MSMPwxHxUv-GMPDg&sig2=RIwBqBM4DwMMO-MhNLEn-Q&cad=rja accessed 26 August 2015; 'Third Package, 2009', available from

<https://ec.europa.eu/energy/en/topics/markets-and-consumers/market-legislation>, accessed 26 August 2015.

⁷⁷ Jack Farchy and Christian Oliver, 'Putin loses face with cancellation of 'pharonic' South Stream', *Financial Times*, 2 December 2014, <http://www.ft.com/cms/s/0/ea6e69a8-7a43-11e4-8958-00144feabdc0.html#axzz3jv3NC5dT> accessed 26 August 2015.

⁷⁸ Chi-Kong Chyong and Vessela Techerneva, 'Europe's vulnerability on Russian Gas', *European Council on Foreign Relations* 17 March 2015, http://www.ecfr.eu/article/commentary_europes_vulnerability_on_russian_gas, accessed 02 October 2015.

⁷⁹ Christian Oliver, 'EU Energy Market: Pipe Dream', *Financial Times*, 9 July 2014, <http://www.ft.com/cms/s/0/c6dd6c38-ea3c-11e3-afb3-00144feabdc0.html#axzz3nPN8wMOd> accessed 02 October 2015.

⁸⁰ Interview 2, Division Energy and Raw Material Foreign Policy, Foreign Ministry, Berlin, 11 September 2014.

⁸¹ Interview 2.

⁸² Ibid.

⁸³ Ibid.

⁸⁴ Ibid.

⁸⁵ Interview 1; interview 2.

⁸⁶ Interview 2.

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- ⁸⁷ Meister, 'Energy union'; interviews 1 and 2; Westphal, 'Germany', p.93.
- ⁸⁸ Meister, 'Energy union'.
- ⁸⁹ 'Koalitionsvertrag', p.118.
- ⁹⁰ Ian Traynor, 'European leaders ask Obama to allow increased exports of shale gas', *Guardian*, 26 March 2014, available from <http://www.theguardian.com/world/2014/mar/26/europe-asks-obama-increased-exports-shale-gas> (accessed 17 April 2014). Norway could increase exports to Germany by ten percent, however, Norwegian gas would be higher-cost. Interview 1; Dickel et al, 'Reducing European dependence', p.12.
- ⁹¹ Andreas Walstad, 'Germany may reconsider Wilhelmshaven LNG project', *Interfax* 27 March 2014, available from <http://interfaxenergy.com/gasdaily/article/7458/germany-may-reconsider-wilhelmshaven-lng-project> (accessed 5 March 2015).
- ⁹² Energy Union Package, European Commission, Brussels, 25 February 2015, pp.9-10.
- ⁹³ 'Energy Union', p.10. 'Guidelines on State aid for environmental protection and energy 2014-20', 28 June 2014, <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52014XC0628%2801%29> date accessed 28 August 2015.
- ⁹⁴ 'Energy Union', p.10.
- ⁹⁵ 'Energy union', p.5.
- ⁹⁶ 'Energy union', p.8.
- ⁹⁷ 'Ten-year network development plan, 2013-22', ENTSOG, Main Report, July 2013, p.95
- ⁹⁸ 'Fact sheet'.
- ⁹⁹ Renewable Energy Progress Report, European Commission, 16 June 2015, p.3.
- ¹⁰⁰ 'Energy Union', pp.12-14.
- ¹⁰¹ Gabriele Steinhauser and Laurence Norman, 'Iran could become a major supplier of natural gas to the EU', *Wall Street Journal*, 13 September 2015, <http://www.wsj.com/articles/iran-could-become-major-supplier-of-natural-gas-to-eu-1442155324> (accessed 01 October 2015).
- ¹⁰² 'Energy Union', p.4.
- ¹⁰³ Interview 1; Dickel et al 'Reducing European dependence', p.25.
- ¹⁰⁴ Dohmen and Jung, 'Cold turkey'; Dickel et al, 'Reducing European dependence', pp.24-25.
- ¹⁰⁵ Dickel et al, 'Reducing European dependence', pp.17-29; Arthur Nelsen, 'Israel sees 'stars aligned' for new gas pipeline to Europe', *Guardian*, 1 December 2014, available from <http://www.theguardian.com/world/2014/dec/01/israel-sees-stars-aligned-for-new-gas-pipeline-to-europe>, (accessed 02 February 2015).
- ¹⁰⁶ Christian Oliver, 'EU sounds out new sources as links with Russia sour', *Financial Times*, 25 February 2015, p.8.
- ¹⁰⁷ Oliver, 'EU sounds out', p.8.
- ¹⁰⁸ O. Coblani, 'Central Asian gas in Eurasian power game', *Energy Policy* 68 2014, p.351.
- ¹⁰⁹ Interview 1.
- ¹¹⁰ 'Fact Sheet'.
- ¹¹¹ Interview 1.

¹¹² For the key features of civilian power, see footnote 25. Additional studies of the role of civilian power in German foreign and security policy include Felix Berenskoetter and Bastien Giegerich, 'From NATO to ESDP: A Social Constructivist Analysis of German Strategic Adjustment after the End of the Cold War', *Security Studies* 19:3, 2010, pp.407-52; Jonas Wolff, 'Democracy Promotion and Civilian Power: The Example of Germany's 'Value-Oriented' Foreign Policy', *German Politics* 22:4, 2014, pp.477-93.

¹¹³ Tom Dyson, *Neoclassical Realism and Defence Reform in post-Cold War Europe*, (Basingstoke: Palgrave, 2010), pp.120-27.

¹¹⁴ Brian Rathburn, 'A Rose by any Other Name: Neoclassical Realism as the Logical and Necessary Extension of Structural Realism', *Security Studies* 17:2, 2008, pp.294-321.

¹¹⁵ Kenneth Waltz, *Theory of International Politics* (Reading: Addison Wesley, 1979), pp.170-1.

¹¹⁶ Barry Posen, 'The European Security and Defence Policy: Response to Uni-Polarity', *Security Studies* 15:2, 2006, pp.149-86

¹¹⁷ Tom Dyson, 'Neoclassical Realism: Clarifying the Nature and Role of Systemic- and Domestic-Level Variables in CSDP', in Lorenzo Cladi and Andrea Locatelli (eds.), *International Relations and European Security* (Abingdon: Routledge, 2015), pp.28-48.

¹¹⁸ Stephen Walt, 'Alliance Formation and the Balance of Power' *International Security* 9:4, 1985, pp.8-13.

¹¹⁹ 'Rathburn, *Neoclassical Realism*', p.297.

¹²⁰ 'Unionspolitiker fordern aenderungen bei Energieversorgung', *Welt*, 29 March 2014, available from <http://www.welt.de/newsticker/news1/article126346691/Unionspolitiker-fordern-Aenderungen-bei-Energieversorgung.htm> (accessed 21 April 2015).

¹²¹ Interview 1.

¹²² 'Unionspolitiker fordern'.

¹²³ Ian Traynor and Arthur Nelsen, 'Ambitious EU blueprint for energy union to loosen Russian grip on gas', *Guardian* 24 February 2015, available from <http://www.theguardian.com/world/2015/feb/24/eu-blueprint-energy-union-russian-gas-gazprom-maros-sefcovic> (accessed 27 February 2015) Meister, 'Energy union';