Challenging Reductionism in Analyses of EU-Russia Energy Relations

The EU and Russia exist in a complex and, at times, seemingly paradoxical and contradictory relationship. On the one hand, the two sides remain rhetorically committed towards a close and developing strategic partnership. On the other, the EU-Russia political relationship is currently at its lowest ebb since the end of the Cold War due to the crisis in Ukraine. A mixture of politics, economics and geography provide an impetus for the development of mutually beneficial relations and, at the same time, obstacles to the achievement of such a positive partnership. No matter how tense the political relationship may become, economic ties and simple geographical proximity mean that the two sides are compelled to continue their dialogue.

In institutional terms, Haukkala argues that the EU has attempted to lock Russia 'into a pan-European economic and political order based on liberal values and practices as they have been understood by the EU itself',[1] but has faced increasing resistance from Russia despite stated objectives to the contrary. A roadmap since 2005 has set out common economic, security, research, education and cultural 'spaces' for both. When the original ten-year Partnership and Cooperation Agreement expired in 2007, the two sides allowed it to degenerate into a one-year rolling agreement rather than negotiate a substantive replacement. Relations improved in 2010, when the EU-Russia Partnership for Modernisation was launched, with the aim of bringing the two parties closer together within a mutually beneficial relationship.

However, the deterioration in political relations since 2014 has led to the suspension of several institutional channels of the EU-Russian relationship. The Russian annexation of Crimea in early 2014 led to the imposition of EU sanctions in the form of asset freezes, visa bans and economic sanctions on the banking, oil technology and arms sectors. European accusations of Russian state involvement in the ongoing conflict in eastern Ukraine have done little to ease tensions. Russia has responded with a ban on the import of certain agricultural and food items from the EU. However, experts do not see this as the 'end of the road' in EU-Russia relations. For example, David and Romanova argue that although the optimistic objectives of the EU-Russia relationship have faded, the imperatives that created them have not.[2]

At the heart of the current tensions and the attempts to develop a strategic partnership, is the issue of energy. Russia is a major supplier of oil, gas, coal and uranium to the EU. Gas is a major component of this commercial relationship, with Russia providing around one third of EU natural gas imports and approximately a quarter of EU gas consumption. At the same time, the EU accounts for almost 60 percent of Russia's total gas exports. However, this energy trade is not simply a commercial phenomenon, as energy is considered to be a strategic resource by both consumer and producer states. For the former, energy is a vital component of all economic activity, while for the latter it also provides an important source of income. Such strategic conceptions in both Europe and Russia have added a political dimension to the EU-Russia energy relationship, and have been used to justify state and EU intervention in the EU-Russia energy trade. The strategic nature of EU-Russia energy relations also means that concerns over the stability and predictability of those energy relations are not considered merely commercial concerns, but are used to define energy as a legitimate security issue by political actors.

For this reason, an institutionalised energy relationship has developed over time to complement and support commercial relationships. The EU-Russia Energy Dialogue[3] was launched in 2000 and, following a gas dispute between Russia and Ukraine in 2009, an 'Early Warning Mechanism' was established, which 'aims to prevent further supply interruptions in gas, oil, or electricity, and to ensure rapid communication' between the parties. Two years later, the new EU-Russia Gas Advisory Council held the first of its annual meetings in October 2011.[4] Finally, in March 2013, the European Commission and Russian government agreed upon an EU-Russia Energy Roadmap to 2050.[5]

Whilst the EU-Russia energy trade has been relatively unaffected at the time of writing[6] as EU member states continue to import Russian energy sources, the institutional EU-Russia energy relationship has suffered. Despite the claim by the European Commission that, 'There is a strong mutual interest in a closer energy partnership between the EU and Russia',[7] the work of the EU-Russia Gas Advisory Council has been effectively suspended - its last meeting took place in November 2013 – as has the EU-Russia Energy Dialogue.[8] Two other developments in recent years have brought the issue of energy security to the forefront of EU-Russia relations: the European Commission anti-monopoly investigation into Gazprom, which provides approximately one third of EU gas imports, and the potential for the interruption in gas transit via Ukraine, which is the delivery route for more than half of Russia's gas exports to the EU.

The ongoing European Commission anti-monopoly investigation into Gazprom was formally launched in August 2012, a year after EU antitrust investigators raided the offices of ten EU member states amid concerns over their contractual relations with Gazprom. It stems from the EU's attempts to develop an internal energy market which attempts to develop an integrated, liberalised and competitive market for electricity and natural gas. The various provisions of the 'Third Energy Package' involve changes to the way in which energy is imported, transmitted and traded within the EU, and necessitates changes to the terms under which non-EU suppliers such as Gazprom can do business with importing companies in the EU member states. In April 2015, the European Commission presented Gazprom with its 'Statement of Objections' which detailed the various ways in which it considers Gazprom to be hindering the development of the internal energy market through various anti-competitive practices in the gas sector.[9] If Gazprom is found to be in breach in EU legislation, it may face a fine of up to 10 percent of its annual turnover, which could amount to over €10 billion. More importantly, the investigation is damaging to Gazprom's reputation and to the level of trust between Gazprom and European energy companies, and the EU and Russia more broadly.

The 2006 and 2009 Russia-Ukraine gas disputes, involving the two state-owned energy companies, Gazprom and Naftogaz respectively, resulted in the suspension of Russian gas deliveries to Europe via Ukraine for several days in January 2006 and for approximately three weeks in January 2009. Current developments in Ukraine have brought the security of Russian gas transit via Ukraine back to the forefront of EU energy security concerns: The ongoing commercial dispute between Gazprom and Naftogaz is reminiscent of the commercial disputes that culminated in the gas crises of January 2006 and January 2009, and indeed may even be more serious: Naftogaz suspended the import of Russian gas from June to December 2014 (without interrupting gas transit via Ukraine), and both parties have brought arbitration cases to the Arbitration Institute of the Stockholm Commercial Court, seeking billions of dollars in reparations for alleged overcharging and non-payment of debts. Furthermore, the military conflict in Eastern Ukraine represents a potential physical threat to gas transit pipelines, should the borders of the conflict zone shift.[10]

The result of these two developments has been a deterioration of energy relations between Russia and the EU. This manifests itself in the rhetorical commitments from both sides to reduce mutual energy trade dependence and seek alternative partners. The EU is focused on diversification beyond Russia to the Middle East, North Africa and the Caucasus; Russia is looking to Turkey and East Asia as export markets[11]. This mutual diversification may be characterised as a fundamental shift in the geopolitics of EU-Russia energy relations, as two previously mutually-dependent entities seek new partners to improve their energy security. The importance of this geopolitical shift is summarised by Radoman, who argues such mutual diversification (with each side seeking to improve their own energy security) actually causes each side to further threaten the energy security of the other, thus creating an ‘energy security dilemma’.[12] One of Russia’s leading energy experts, Simonia, suggests that ‘academics should increasingly be considering ways in which the vicious circle of energy supply securitisation can be stopped, as well as finding more concrete ways of establishing energy as an important economic tool for interdependence’.[13] It is clear that the changing geopolitics of EU-Russia energy relations are causing increasing levels of uncertainty with regard to the balance between mutual dependency and diversification.

Challenging Reductionism in Analyses of EU-Russia Energy Relations

This brief overview paints a seemingly bleak picture of EU-Russia relations, which appears to offer few opportunities for the development of a more collaborative and cooperative partnership in the near future. This also appears to be the case when we look at the energy sector, as is evident in even the most cursory of reviews of academic and journalistic analyses of this relationship. Nonetheless, all too often such analyses are guilty of different forms of geopolitical reductionism that overly simplify the complexities of this relationship and discount potential dynamics that could facilitate cooperation in the future. There are at least three different forms of geopolitical reductionism that are common in analyses of EU-Russian energy relations.

The first is the reduction of EU-Russian energy relations to **the diktats of power politics**, which are defined in terms of fundamentally incompatible self-images and worldviews held by the EU and Russia. In this form, energy relations are understood as part of a zero-sum game between a postmodern, liberal EU, which pursues an energy policy based on free and open markets, and a modern mercantilist Russia that utilises its substantial energy resources as a weapon, or as a means of exerting its power in the international system. As Klinke has identified, such reductionism permeates many media and academic accounts of EU-Russian energy relations, and often contains the implicit or explicit argument that Russia is at fault and should converge with the EU’s liberal value system.[14] Conversely, this logic has also been criticised by Casier.[15] Such logic is problematic precisely because it ignores the endogenous commercial and technical dynamics of the energy sector. This results in a fundamental misreading of the current state of EU-Russian energy relations in which conflictual rhetoric is to a significant extent also combined with a continuity of trade, as was the case during the Cold War. This largely forecloses any possibility of identifying potential avenues for meaningful cooperation between these two 'enemies' in the future. Indeed a number of authors have argued, in the liberal institutionalist vein, that it is a lack of institutionalisation of EU-Russia relations that undermines a more constructive and more mutually beneficial relationship[16] a not insurmountable obstacle.

The second form is the reduction of EU-Russian energy relations to the **objectives of, and interactions between, specific governmental actors**. Other important actors involved in energy supply chains are sometimes excluded from the analysis, but more often their actions are interpreted solely, or mainly, through the (geo)political objectives of governments. The most common expression of this form of reductionism can be found in the frequent conflation of the interests and motivations of the Russian president and Gazprom: The latter is not viewed as an actor with commercial interests of its own, but instead as a political tool of the former.[17] This is problematic because in all areas of the energy sector there are a wide range of actors with their own political and economic interests, motivations and cognitive frames which may deviate from or indeed challenge the interests of incumbent government actors. Goldthau's criticism of the reductionist conflation of Gazprom and the Russian state is based on such a nuanced consideration of the difference in interests between the two, while questioning the utility of the 'energy weapon' itself.[18] Yet neither Goldthau nor Smith-Stegen, nor indeed any well-known expert on the subject, has denied the linkage between Gazprom and the Russian state, given the state ownership of Gazprom and the right of the government (representing the state as Gazprom's largest shareholder) to nominate the Chairman and CEO. Instead, it is important to draw out a nuanced characterisation of the relationship between the two. Energy politics is much more dynamic than is implied by the form of reductionism noted above, and empirically examining the interactions of these actors is essential if we are to assess the current and future potential for more cooperative relations between the EU and Russia.

The third form is the interpretation of EU-Russian energy relations through a narrow **geopolitical reading of energy security**. Scholars such as Klare use a realist framework to argue that the international politics of energy are characterised by competition for a limited (and decreasing) supply of energy resources, which leads to a heightened chance of conflict, and a situation in which states prioritise control over, and access to, energy resources.[19] Goldthau and Sitter also argue that 'the [European] Commission is – mostly – a liberal actor, even as the world of energy turns more realist'.[20] Within such a reading, energy resources are viewed in strategic terms, as part of the calculus about the material power of states in terms of either weapons to be utilised or dependence to be curtailed. This is problematic because energy security, as many critical geographers and security analysts increasingly recognise, is a notoriously contested and malleable concept which cannot easily be reduced to a single objective or set of policy prescriptions. As Ciută argues, energy security 'means many different things to different authors and actors, and even at times to the same author or actor'.[21] Similarly, Kuzemko makes the claim that 'policy differences are based not just on interests and material capabilities, but also on varying understandings of energy, its role in society and how it should be governed'.[22] There are a myriad of conceptual expositions which highlight the different logics that underpin actions in favour of greater energy security, document the different disciplinary understandings of this concept, and examine the different ways in which energy security problems play out in different geographical contexts.[23] This is not to say that the concept of energy security has been fundamentally misunderstood or that it is ultimately meaningless within EU-Russian relations. On the contrary, energy security is central to the interests, motivations and framings of numerous actors on both sides of this relationship. Instead the point is that energy security is given meaning by the ways in which it is used and understood by different actors in particular contexts.

As noted by Sovacool and Brown 'notions of energy security are either so narrow that they tell us little about comprehensive energy challenges or so broad that they lack precision and coherence […] there are no standard composite metrics to evaluate energy security'.[24] We would add that debates about what security means, how a sufficient level of security can be achieved and who has the authority to speak about security underpin most aspects of EU-Russian energy relations, beyond quantitative measures of the level of energy security. The tendency of certain authors to reduce energy security to the security of EU gas supplies, or at least to focus primarily on this perspective,[25] runs contrary to this observation, as it neglects the security of demand for Russian gas which is a major driving force in that state's energy policy.[26] It also assumes that each side has one coherent set of security concerns that can be derived from a simple examination of levels of energy production, consumption and import dependence,[27] when in actual fact energy security is routinely contested and reimagined within and between both sides of the EU-Russian energy relationship.

Energy security consists of ideological as well as material dimensions.[28] By failing to examine the dynamics of how energy security is articulated and given meaning in different contexts, a reductionist interpretation of the concept struggles to fully understand the historical evolution of this relationship. Understanding this temporal dimension is essential with regards to conceptions of energy security.[29] The possibilities for complementarity and cooperation between the EU and Russia in the future are also foreclosed.

The aim of this Special Section

These three reductionist variants are, of course, not mutually exclusive. Indeed, they are often mutually reinforcing, and are usually underpinned by simplistic geographies of energy supply which focus on levels of import dependence. In this special section, which builds upon a previous special section in this journal on 'The Geopolitics of Energy Supply in the 'Wider Europe',[30] we do not claim that such analyses have no value. Rather, our argument is that they offer an incomplete account of EU-Russian energy relations, and that this issue in some small way contributes to a fuller understanding of these dynamics.

This special section gives voice to a range of perspectives on the EU-Russian energy relationship, which utilise concepts and approaches drawn from disciplines as diverse as social psychology, economic geography and critical geopolitics to examine the dynamics of cooperation and conflict within this relationship. The starting point for our contributors is to examine the link between 'energy security' and the geopolitics of energy supply, and the aim of this special section is to analyse the development of EU-Russia energy relations in order to explain current trends in that strategic relationship. The authors here examine the motivations and actions of different actors in all of their complexity in order to provide a richer and more nuanced evaluation of the current state of the EU-Russian energy relationship and the possibilities of transcending geopolitical competition.

In the opening article of this special section, **Casier** utilises concepts from Construal Level Theory to explain why there is a tendency towards reductionism when analysing EU-Russian energy relations. Central to his argument is the observation that abstract geopolitical and ideological framings of this relationship are frequently privileged over more immediate commercial and technical framings. This results in the reduction of EU-Russian energy relations to a zero-sum game, in which a collective intentionality is imposed on both sides of this relationship which does not accurately reflect the motivations of most of the main actors involved in the energy trade between the EU and Russia. Casier argues that this tendency, which was evident in EU-Russian energy relations long before the current conflict in Ukraine, has been strengthened because these abstract framings have now been complemented by immediate military threats on the ground.

Rather than reducing EU-Russian energy relations to incommensurable worldviews, **Hadfield** examines these relations through the lens of strategic culture which focuses on the *interaction* between the two parties. This allows her to assess whether a strategic energy culture can be said to exist, and to examine the balance between progressive tendencies towards greater commonality, convergence and cooperation, and regressive tendencies towards the breakdown of relations. Hadfield argues that a strategic energy culture that goes far beyond mere bilateral diplomacy has long existed between the EU and Russia, based on the shared recognition of their energy interdependence and the resulting need to develop norms and institutions to regulate this interdependence. Nonetheless, there are often strong disagreements about how best to regulate this area, which is why this particular energy security culture demonstrates both progressive and regressive qualities. She identifies the Northern Dimension, Partnership and Cooperation Agreement and the EU-Russia Energy Dialogue as instances where progress towards greater cooperation is evident, but also highlights the Energy Charter Treaty and the intensification of efforts to deepen EU market integration through the Third Energy Package as instances where the EU-Russian strategic energy culture has moved in a more regressive direction. This raises important questions about the prospects for greater convergence and cooperation within the energy sector in the short and medium term.

Maltby and Khrushcheva take up this question of the potential deepening of energy cooperation between the EU and Russia by analysing whether relations based on the hydrocarbon trade have been complemented by a supplementary relationship based on decarbonisation objectives. They adopt a constructivist perspective, arguing that cooperation, defined as shared expectations about appropriate behaviour, stems from complementary interests and intersubjectively held beliefs about what security means in a specific sectoral context. In the case of the hydrocarbon trade, the EU and Russia have different interests and beliefs about what energy security is (security of supply and security of demand respectively), but these understandings complement each other in the form of mutual interdependence, which has enabled, and continues to enable, cooperation in this area. By contrast, in the decarbonisation agenda of promoting renewable energy sources, energy efficiency and energy technology transfer, such complementarity is lacking. While the EU has been quite successful in fusing together its understandings of energy and environmental security in its energy policy, Russia has been much less successful in this regard, maintaining a near exclusive focus on the security of demand for Russian energy sources. In short, cooperation in this area is likely to remain stalled for the foreseeable future.

Kama foregrounds the issue of viewing energy security in exclusively geopolitical terms in a detailed examination of how the meaning of this concept is actively contested in the case of Estonia. She focuses on Estonian shale oil, which under geopolitical readings could be regarded as a strategic resource which, if fully exploited, could reduce dependence on Russian energy supplies and therefore increase the security of supplies. She argues however that such an interpretation is being increasingly challenged within Estonia by different groups of ‘experts’. This challenges the exclusive focus on the actions of governmental actors, and highlights the need to examine how energy security is constructed and contested by multiple actors who all have some claim to be able to ‘speak security’ within a state.

Romanova directly challenges the view that Russia should be understood as a singular, monolithic state that uses its sizable energy resources as a geopolitical weapon against the EU. She instead examines the range of approaches that different actors in Russia have taken in responding to the EU’s third energy market liberalisation package. In doing so, she identifies three relatively distinct approaches – geopolitical, legalistic and technocratic – which have been combined in response to different challenges raised by the third package such as grid ownership and operation, pricing, and the construction of the Nord Stream and South Stream pipelines. Her analysis provides useful insights into the sophisticated use of multiple strategies by different actors involved Russian energy politics.

Sharples focuses on one of the most recent developments in Gazprom’s export strategy, the so-called ‘turn to the East’, and the implications this could have for EU-Russian energy relations. In a detailed analysis of the geography of Russian pipeline infrastructure and gas production, he demonstrates that Gazprom is heavily dependent on gas exports to Europe and this dependence is unlikely to disappear any time soon, due to the path dependency of EU-Russian pipeline infrastructure and surplus gas production at the new megaproject on the Yamal Peninsula, in North-West Russia. Moreover, Gazprom’s proposed development of gas exports to the Asia-Pacific region will not divert supplies earmarked for Europe because they will be mostly, if not entirely, based on new gas production in Russia’s eastern regions, which are not used as a resource base for exports to Europe. The lack of physical infrastructure connections between Western and Eastern sections of Russia’s gas system means that no real price competition between the EU and China for Russian gas supplies is likely to emerge. Furthermore, he argues that even if the resource base in Western Russia were connected to North-Western China, thereby giving Gazprom the possibility of balancing supplies between East and West, the combination of higher gas prices in Europe, lower gas prices in China, and competition from Central Asian gas supplies to Western China makes it unlikely that Russian gas exports will be re-directed from Europe to China. He therefore concludes that Europe will remain a strategic market for Russia’s gas exports.

Conclusions

The importance of the EU-Russia energy relationship for both sides cannot be understated. The EU and Russia derive significant economic benefits from their commercial trade in energy resources, which has also been allocated substantial (geo)political value by the two sides. It is precisely this (geo)political value that has led to some of the reductionist interpretations of the EU-Russia energy relationship noted above, particularly in the context of deteriorating diplomatic relations between the EU and Russia since 2014. By bringing together a range of perspectives, we hope to offer a more nuanced interpretation of contemporary EU-Russia energy relations, which emphasises the roles of institutional, technical, and commercial factors in balancing the geopolitical framings of this relationship, in order to gain a deeper, more holistic, understanding of an energy relationship that will remain of great importance to both parties, for decades to come.

In his conclusion to this special section, Dannreuther places these contributions in the broader context of historical shifts in the politics of global energy security. He argues that the tendency towards geopolitical reductionism in EU-Russian energy relations has to be understood as part of a global resurgence in resource nationalism and the reassertion of the role of the state in energy governance – two developments which the EU has sought to defend itself against as a promoter of classic liberal values. In doing so, Dannreuther highlights the contribution of the articles in this special section to a more nuanced understanding of EU-Russia energy relations that avoids geopolitical reductionism. This leads to the overall conclusion that, while broader geopolitical relations between the EU and Russia are currently facing significant challenges, the multi-layered political, economic, and commercial interests that drive the EU-Russia energy relationship will ensure that the specifically energy-focused aspect of the EU-Russia relationship will remain durable even in the face of geopolitical challenges – a conclusion borne out by the analyses presented in the articles of this special section.

NOTES

[1] H. Haukkala, ‘From Cooperative to Contested Europe? The Conflict in Ukraine as a Culmination of a Long-Term Crisis in EU–Russia Relations’, *Journal of Contemporary European Studies* 23/1 (2015) p. 26.

[2] M. David and T. Romanova, ‘Modernisation in EU–Russian Relations: Past, Present, and Future’, *European Politics and Society* 16/1 (2015) pp. 1-10.

[3] P. Aalto and D K. Temel, ‘European energy security: natural gas and the integration process’, *Journal of Common Market Studies* 52/4 (2014) pp. 758–774.

[4] European Commission, 2015a. Energy – International Cooperation – Russia. [online] Available at: http://ec.europa.eu/energy/en/topics/international-cooperation/Russia [Accessed 4th June 2015].

[5] European Commission, 2013. Roadmap - EU-Russia Energy Cooperation to 2050. [pdf] Available at: http://ec.europa.eu/energy/sites/ener/files/documents/2013_03_eu_russia_roadmap_2050_signed.pdf [Accessed 4th June 2015].

[6] This article was finalised in July 2016.

[7] European External Action Service (2015) ‘EU relations with Russia’, http://eeas.europa.eu/russia/about/index_en.htm

[8] European Commission, 2015a. Energy – International Cooperation – Russia. [online] Available at: http://ec.europa.eu/energy/en/topics/international-cooperation/Russia [Accessed 4th June 2015].

[9] J. Sharples, Gazprom Monitor, Issue 46 (April 2015) p. 6.

[10] For more on the history of the Russia-Ukraine gas dispute, see J. Sharples and A. Judge, ‘Russian gas supplies to Europe: The likelihood and potential impact of an interruption in gas transit via Ukraine’, in Future Energy Trends: Innovation, Markets and Geopolitics (ECISS: Abu Dhabi forthcoming).

[11] E. Shadrina and M. Bradshaw, ‘Russia's energy governance transitions and implications for enhanced cooperation with China, Japan, and South Korea’, *Post-Soviet Affairs* 29/6 (2013) pp. 461-499.

[12] J. Radoman, ‘Securitization of Energy as a Prelude to Energy Security Dilemma’, *Western Balkans Security Observer – English Edition* 4 (2007) p. 36.

[13] N. Simonia, ‘Foreword’, in C. Kuzemko, A. Belyi, A. Goldthau, A., and M. Keating (eds.), Dynamics of Energy Governance in Europe and Russia (Basingstoke: Palgrave 2012) p. 10.

[14] I. Klinke, ‘Postmodern geopolitics? The European Union eyes Russia’, *Europe-Asia Studies*, 64/5 (2012) pp. 937.

[15] T. Casier, ‘The EU-Russia Strategic Partnership: Challenging the Normative Argument’, *Europe-Asia Studies* 65/7 (2013) pp. 1377-1395.

[16] A. Goldthau and J.M. Witte, ‘Back to the future or forward to the past?’, *International Affairs* 85/2 (2009) pp. 373-390.

[17] K. Rosner, Gazprom and the Russian state (London: GMB Publishing 2006) p. 1; A. Vavilov and G. Trofimov, ‘A phantom energy empire: the failure of Gazprom’s downstream integration’, in A. Vavilov (ed.) Gazprom: an energy giant and its challenges in Europe (Basingstoke: Palgrave 2014) p. 83.

[18] A. Goldthau, ‘Rhetoric versus reality: Russian threats to European energy supply’, *Energy Policy* 36/2 (2008) pp. 686–692; K. Smith-Stegen, ‘Deconstructing the “energy weapon”: Russia's threat to Europe as case study’, *Energy Policy* 39/10 (2011) pp. 6505–6513.

[19] M. Klare, Rising Powers, Shrinking Planet: The New Geopolitics of Energy (New York: Henry Holt and Company 2008).

[20] A. Goldthau and N. Sitter, 'A liberal actor in a realist world? The Commission and the external dimension of the single market for energy', *Journal of European Public Policy* 21/10 (2014) p. 1486.

[21] F. Ciută, 'Conceptual Notes on Energy Security: Total or Banal Security?', *Security Dialogue* 41/2 (2010) p. 127.

[22] C. Kuzemko, 'Ideas, power and change: explaining EU–Russia energy relations', *Journal of European Public Policy* 21/1 (2014) p. 59.

[23] Ciută note 21; A. Cherp and J. Jewell, 'The three perspectives on energy security: intellectual history, disciplinary roots and the potential for integration', *Current Opinion in Environmental Sustainability* 3/4 (2011) pp. 202–212; M. Bradshaw, Global Energy Dilemmas: Energy Security, Globalization and Climate Change (Cambridge: Cambridge University Press 2014).

[24] B.K. Sovacool, and M.A. Brown, 'Competing Dimensions of Energy Security: An International Perspective', *Annual Review of Environmental Resource* 35 (2010) p. 79.

[25] See, for example, C. Winzer, 'Conceptualizing energy security', Energy Policy 46 (2012) pp. 36–48.

[26] This is, however, acknowledged more explicitly in J. Sharples, 'Russian approaches to energy security and climate change: Russian gas exports to the EU', *Environmental Politics* 22/4 (2013) pp. 683-700.

[27] R.W. Orttung and J. Perovic, 'Energy Security', in V. Mauer, D. Cavelty and M. Dunn (eds.) Handbook of Security Studies (Abingdon: Routledge 2012) pp. 211-220.

[28] R. Dannreuther, 'Energy security and shifting modes of governance', *International Politics* 52/4 (2015) pp. 466-483; A. Judge and T. Maltby, 'European Energy Union? Between Securitisation and 'Riskification'', Paper presented at UACES 46th Annual Conference, Queen Mary University of London, 4-7 September (2016); A. Judge, 'Energy securitisation: Beyond the Copenhagen School', Paper presented at ECPR General Conference, Charles University in Prague, 7-10 September (2016).

[29] G. Bridges, 'Energy (in)security: world-making in an age of scarcity', The Geographical Journal 181/4 (2015) pp. 328-339..

[30] G. Bosse and A. Schmidt-Felzmann, 'The Geopolitics of Energy Supply in the 'Wider Europe', *Geopolitics* 16/3 (2011) pp. 479-485.