The future of EU-Russia energy relations in the context of decarbonisation

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Abstract: In 2013, there was a joint commitment to "long term strategic EU-Russia energy cooperation".[1] Whilst centred on oil and gas, it is noted that "the importance of renewables for EU-Russia energy relations should grow too",[2] and that for energy efficiency, "cooperation potential is immense and could […] contribute to the objective of a Pan-European energy area".[3] Given this shared objective, this article analyses EU and Russian energy decarbonisation policy objectives and considers the potential for a supplementary trade relationship based on renewable energy flows and decarbonisation related technology, as well as the implications for existing energy trade. Despite declarative statements of mutual interest, shared objectives and cooperation in decarbonisation policy, there has been very limited cooperation by early 2016. The EU has set ambitious plans to decarbonise its economy and energy sector by 2050. However, in Russia energy policy is dominated by hydrocarbon exports, decarbonisation targets are modest, and there are major problems with their implementation. The drivers of EU and Russian energy policies are evaluated, and the argument advanced is that different understandings of energy security and types of energy governance provide major obstacles to decarbonisation cooperation and trade. However, it is argued that ideas about energy policy and security are contested and subject to change and there exists significant potential for mutual gain and cooperation in the longer term.

1. Introduction

The EU-Russia energy relationship, as energy trade in general, has traditionally been dominated by hydrocarbons; gas, oil and coal. The EU and Russia are positioned at opposite ends of the commodity chain, concerned by distinct though overlapping security priorities; security of energy demand and security of supply respectively, with both seeking a degree of stability of pricing. Transition to a low carbon economy incorporates an additional dimension to the established patterns of energy trade, raising the question of how much the process of decarbonisation will change relations between energy consumers and suppliers. This article focuses on the impact of strong EU decarbonisation objectives on EU-Russia energy relations, and explores the extent to which a supplementary energy relationship based on cooperation around decarbonisation objectives, including electricity trade and technology transfer has occurred and is likely.

There exists a substantial interdependency between the EU and Russia; in 2014, Russia exported more than 70% of its oil and 90% of its gas to Europe[4] and taxation of the oil and gas sector in the first half of 2015 Russia contributed 52% of Russia's federal budget revenues, and 11% of GDP.[5] In turn, the EU was dependent on Russia as its largest coal supplier, for 38% of its gas imports in 2013 and one third of its oil imports.[6] Whilst conflict in Ukraine led to the suspension of some of formal forms of energy cooperation (for example the EU-Russia Energy Dialogue), a convergence of commercial interests between energy companies, Russia, the EU and its member states has left energy trade largely unaffected.

An analysis of the implications of climate change and decarbonisation policies on this relationship is under-considered in the literature. This is an important aspect of EU-Russia relations given the stated climate policies of each actor, commitments made at the Paris climate change conference in 2015 and the explicit objective of developing a decarbonisation related trade relationship. The EU has ambitious plans to achieve 80-95% decarbonisation by 2050 primarily to combat climate change though also to manage energy import dependency. In this article, we consider the form and possibility of a 'decarbonised' energy relationship; the impact on both the existing EU-Russia hydrocarbon energy flows, as well as the potential for a supplementary 'decarbonised' trade of renewable energy and trade in technology.

We explore how divergent interests and drivers of energy policy in the EU and Russia, including conceptions of energy security and attitudes towards climate change, affect the commitment to decarbonisation objectives and their implementation. We find that Russian decarbonisation and climate change policy is markedly less ambitious than that of the EU and characterised by a failure to implement relatively modest policy objectives. The significance of the findings is supports for the central assertion by Kuzemko that energy policy is based not simply on material capabilities, but also understandings of energy; the importance of "ideational contestation and change" and "approaches to energy governance"[7] in policy-making. Divergence in ideas and approaches to energy policy between the EU and Russia exists and is a factor in explaining the fact that explicit declarative shared objectives have not yet led to any significant cooperation on decarbonisation related to energy efficiency and renewables policy. Although material factors are important in structuring relations between the EU and Russia, the power of ideas in the policymaking and implementation process is found to be important.

The relationship between power and ideas is here conceived to be one which considers the role for "alternative frameworks of ideas" to challenge dominant ideas and embedded institutions", particularly during periods of crisis.[8]

A collectively held understanding of environmental security is largely absent. However, a temporal analysis reveals that Russian energy policy is also subject to contestation and change. Kuzemko's work has also highlighted change and contestation of ideas within the EU.[9] The originality of this contribution is in highlighting that whilst decarbonisation policies have not yet added significant new strand to the (hydrocarbon dominated) EU-Russia energy relationship there is some overlap of interests, and there is a limited coalition in Russia advocating policy change that would increase this overlap. There exists the potential for mutual interest in improving energy efficiency and related technology trade, and renewable energy trade too. Importantly, energy efficiency and renewables are relatively less politicised issues, and represent a potential basis for cooperation including the resumption of the suspended EU-Russia energy dialogue and work towards the stated mutual objectives.

The article is structured as follows: The first section outlines how the EU-Russia political and energy relationship has been conceptualised, and engages with work on the geopolitics and materially derived nature of the relationship, developing this to incorporate literature that considers the role for ideas and change. The article proceeds in section three and four to examine EU and then Russian energy and decarbonisation policy, including the decarbonisation objectives of both, and also evaluates the drivers of energy policy to assess the political will to meet stated objectives. Section five concludes with an assessment of the extent to which there is a convergence of decarbonisation objectives and the implications for EU-Russia energy relations.

2. Conceptualising EU-Russia energy relations

Conflict: Geopolitics and conflicting identities

This section evaluates the 'return' of geopolitics to the EU-Russia energy relations. Both history and geography structure EU-Russia energy relations, with Bridge one of many emphasising the interlinkage between the politics of energy security and geographies of supply and demand.[10] There is an asymmetry[11] or "spatial differential between these geographical realms",[12] between exporter and importer. The EU's attempts to export its values and

encourage greater liberalisation of Russian energy sector were unsuccessful, with the EU now introducing more explicitly geopolitical tools to increase security of supply.[13] Carbon emission reduction strategies cannot replace hydrocarbons completely in the short or medium term, therefore energy consumers such as the EU will continue to depend on energy imports.[14] However, the low carbon transition adds another dimension to the geopolitics of energy trade, as another commodity on the international energy market.[15]

For the Russian Government, energy is more than just a tradeable commodity;[16] it is core to both economic development and to the restoration of 'great power' status in the international system.[17] The Russian government explicitly frames energy policy not only in economic, but also in political and geopolitical terms,[18] and it has been claimed internally that the development of the energy sector is "a way to strengthen Russia's position in the world".[19] Such a position is not exclusive to Russia, but applies to many other energy producing states. High energy prices in the 2000s allowed many energy producing states (Russia, Venezuela, Sudan, Nigeria) to accumulate hard currency reserves,[20] and increase state-control of energy sectors.[21] Increased state control over the energy sector has resulted in barriers for foreign investment, has undermined decarbonisation policies, and clashes with liberalisation of energy trade promoted by Western energy consumers. Since 2000 Russian leaders have seen revenues from the energy sales as a way to reconstruct country's economic and political power.[22] The 2009 Russian Security Strategy emphasises that "one of the main long-term directions of national security in the economic sphere is energy security".[23] Russian power and influence in international politics is derived significantly from energy trade, Russia as an "energy superpower", which also affects how Russian energy policy is interpreted externally.[24]

On the one hand it has been argued that the relationship between the EU and Russia is, and will be, one of 'peaceful coexistence',[25] with WTO membership one example of how the two actors might be drawn into a more interdependent and cooperative relationship. However, a number of authors conceive the relationship as one between different actors – liberal and realist – which has driven 'strategic rivalry' rather than partnership, with Russia understood to be focused on independence and sovereignty, seeking great power status and the defence of national interest.[26] This fits with Buzan's[27] understanding of a wider neighbouring society that is based on survival and self-interest, and that of Grajauskas and Kasciunas, who state that "ideological differences *inevitably* translate into the lack of trust and exacerbation of geopolitical tensions in the shared neighbourhood".[28] Similarly, Haukkala argues that there is a stark distinction between the identities of Russia and the EU, between a sovereign and post-sovereign actor,

resulting in "a clash".[29] Energy policy priority differences are linked to the opposing roles of energy producer and consumer; however, it is argued that divergent identities exacerbate these differences and provide an obstacle to cooperation.

The postmodern nature of the EU has been echoed in its discourse related to Russia, and cited as a reason for difficulties in the relationship.[30] Whilst energy producing states were moving towards re-nationalisation of energy production, the EU opted for greater liberalisation of the energy sector. This creates 'dysfunctional' energy relations between energy consumers and energy producers in terms of common legislation and policy between the two.[31] The EU's role in and conception of international relations is a multilateral and legalistic one in which interdependence is key.[32] Attempts have been made to export EU policies and norms to third countries, including Russia, in the energy sector.[33] Examples include the Energy Charter Treaty (ECT), designed to provide a legal basis for a multilateral framework for energy cooperation,[34] and the Energy Community initiatives. This has been based on the external projection of internal policy, in which three Energy Packages since the 1990s have set out to reform national energy markets and create interconnected, integrated and competitive markets.[35] Energy policies and norms are a key function of the EU's 'soft', normative power, 'its ability to shape conceptions of "normal" in international relations'[36] and to export EU energy legislation and policy. However, this has not been successful with regard to Russia which, in 2009, stopped the provisional application of the ECT and demanded an equal partnership rather than one based on Russia following EU policies.[37]

EU-Russia energy relations have become increasingly politicised since the mid-2000s.[38] This has occurred in response to rising prices[39] but also the perception by the EU that Russia has used its energy resources "as a means of asserting its power",[40] with disruptions of Russian gas supplies and selective pricing a result of geopolitically driven Russian foreign and energy policy, and resource nationalism within Russia (as opposed to market liberal approaches to energy governance in the EU). Klinke questions the strict dichotomy of a postmodern EU and a modern geopolitical Russia; between an actor characterised by pooled sovereignty and the "disappearance of geopolitics' and one that is based on 'national identity and traditional geopolitics".[41] Gower and Timmins are amongst those who point to "the gradual re-emergence of zero-sum calculations and geopolitical competition",[42] applying to the EU as well as Russia. Similarly, Kuzemko has argued that "EU enlargement eastwards has also reinforced notions of sovereign action in energy as well as of Russia as 'other'"[43] with "geopolitical notions"

increasingly influencing EU energy policy[44] in part due to changing constellations of actor preferences in an enlarged EU, but also as a result of the perceived failure of liberal market policies to deliver security of supplies. Goldthau and Sitter also point to the EU as a *mostly* liberal actor in a realist world, at times using external tools that are exceptions to liberal market rules, such as state intervention and diplomacy.[45] EU enlargement has seen a number of newer member states advocating less reliance on Russian energy and more (geo)politically-orientated objectives.[46] As an example, the EU's proposed gas pipeline projects are driven by political as well as commercial imperatives.[47]

Cooperation: commonality of interests and the role of ideas

The article recognises that a contribution to the literature on EU-Russia energy relations needs to acknowledge the presence of geopolitics and strategic rivalry. This is materially and historically conditioned and linked to different forms of energy governance. However, despite different identities and tensions in the energy trade, interdependence continues to characterise energy trade. We argue that a) commonality of interests can exist despite major preference divergence; and b) actor identities and interests are not fixed and as Kuzemko argues, but rather that ideas are powerful within energy policy-making.[48]

Despite the divergence of preferences and the presence of geopolitical rivalry, energy policy has not been primarily characterised by conflict. Among the divergent preferences noted above, there exists a significant stability of relations. For example, the EU-Russia Energy Dialogue was established in 2000, and a Roadmap to 2050 was agreed in 2013, which commits the parties to share long term objectives, reduce risk and identify common interests – of which trade related to decarbonisation is one.[49] Whilst weakly institutionalised, with both Russia and the EU generally prioritising bilateral energy diplomacy, the Dialogue enabled the establishment of a gas forum for businesses and regulators, an early warning gas disruption mechanism and contributed towards the resolution of long-term supply contract disputes.[50]

The 2013 Roadmap acknowledged Russia's interest in security of demand, and the EU's in security of supply, yet highlights interdependence and that sharing information about strategies and long term plans is key.[51] Whilst the Dialogue has been suspended since 2014 as a response to the conflict in Ukraine, there is a high degree of stability of relations in hydrocarbon trade and there has been no substantial transit disruption to Russian gas supplies between February

2009 and April 2016. This continuity exists because of commercial imperatives, and the common interest of the EU, Russia and other actors in continued trade. Neither actor has a short term alternative to securing demand or supply.

As such, some commonality of interests is required to facilitate a new partnership of trade, expertise and finance related to energy decarbonisation. It is the purpose of this article to investigate whether this commonality exists, and considering the role of ideas, whether there has been change over time. The decarbonisation agenda of the EU-Russia energy dialogue is potentially promising as it less rooted in the asymmetry of a consumer-supplier, import-export relationship. As noted by Aalto, decarbonisation could serve to strengthen "the informational and institutional dimensions of the Russian-European relationship",[52] but also the material basis of the relationship in terms of technology transfers and Renewable Energy Source (RES) flows. The 'Cooperation Pathway' of the Roadmap highlights mutually beneficial cooperation on decarbonisation policy, noting that this "is in the interest of both sides" and is a priority.[53] The Roadmap also recognises Russia's "high" energy efficiency potential and "immense" renewable potential, and that "EU-Russia cooperation on renewables is currently underdeveloped".[54] The International Energy Agency estimates a technical energy efficiency potential equivalent to a third of Russia's energy production.[55]

In terms of self-interest, the EU's motivation lies in the understanding that addressing global climate change requires the cooperation of other major economies,[56] and that, in terms of decarbonising its energy supply, there are synergies with Russia. Toke and Vezirgiannidou have highlighted how the EU's decarbonisation policy could be considered threatening to Russia in the long term, since security of demand would be undermined by the EU's steadily declining market for Russian hydrocarbon exports.[57] However, in the short to medium term (at least until 2030), in the absence of significant progress in electricity storage technology, gas is considered to be important back-up capacity to intermittent renewable energy production, "which could be a strong basis for deeper EU/R[ussian] F[ederation] cooperation".[58]

If the decarbonisation element of the EU-Russia dialogue is to be more than empty rhetoric and ambitious objectives, the development of this partnership requires a degree of commonality in understandings of climate policy. This means commitment to policy making *and* implementation; the political will to develop renewable energy and increase energy efficiency, in both the EU *and* Russia. We investigate whether such a commonality of interests exists,

driven by environmental security or economic concerns, and whether there has been change over time. In considering the EU and Russia, each has a distinct 'worldview' when it comes to energy, defined by Bouzarovski and Bassin as "bound up with national politics and cultural self-determination...[the] interdependence between energy and identity".[59] Worldviews structure policy choices, in this case about the role of energy in society.

It is clear from a cursory examination of EU and Russian climate objectives that there is a considerable difference in understanding of environmental security and the importance of addressing climate change. We recognise the role of material interests and the spatially embedded energy relationship, and the logic of geopolitics that can arise because of different worldviews that are held. However, we assume that these worldviews are not fixed, but in a process of continual contestation; linked to material factors but in line with constructivist assumptions they are also a product of discourse, argumentation and persuasion,[60] within the EU and Russia, and between these actors via, for example, the EU-Russia Energy Dialogue. These worldviews *are* conditioned by changing material factors and relative power capabilities – but *also* from a change in knowledge through learning,[61] and from ideational contestation. Whilst there is inertia within this, as "actions to innovate will be met with counter-actions to resist change and hold intact the existing set of preconditions for practice",[62] change does occur, through political and societal debate.[63] Ideas structure policy practices, confer authority and legitimate policy choices, and are contested with alternative frameworks of ideas.[64] Understandings of security – energy and environment – are context-dependent, and vary across time and space, in line with proponents of the securitization theory[65] and through ideational contestation. Understandings of energy policy, and the structuring of policy choices, are subject to change.

Both material interests and ideas structure policy practices (such as type of energy governance) and choices (such as renewable energy policy support mechanisms). Key actors in Russia and the EU assign different meanings to energy and environmental security. In turn this affects the potential for the substantial institutionalisation of a relationship, a partnership beyond mere rhetoric and ambitious objectives found in institutions such as the 'EU-Russia dialogue'. Policies and trade (of renewable energy and energy efficiency technology) can be framed in different ways; as mutually (un)beneficial, as (un)important, as (un)threatening. Ideas here are integral, and this article investigates through analysis of policy objectives, policy

implementation and policy drivers, whether understandings of energy particularly with regard to climate related policy overlap.

We can see in the analysis above that the two actors have been characterised as fitting within binaries: postmodern/modern; post sovereign/sovereign; security of demand/security of supply focused; geopolitically/market liberal or legal. However, neither actor adheres fully to these ideal types. As argued by Klinke, what characterises EU-Russia relations are "two competing modernities (as well as two different geopolitical logics)".[66] Within these two competing logics, the energy relationship is not fixed and unchanging. Rather the interests and identities of both are a product of the material reality, of spatial and territorial differences, but also of dynamic contestation of ideas and evolving understandings of energy security, within and between the two actors.

The development of a hydrocarbon energy relationship supplemented by renewable energy (and technology) trade, is contingent on a sufficient convergence of interests and political will in implementing such policies in addition to the existing and less onerous non-binding commitment to such objectives. What is also required is a shared understanding of the benefits to be gained from cooperation. This means a shared commitment to decarbonisation policies even if the drivers of this commitment do not overlap completely and are based to different extents on economic, security or power concerns (including on the international stage). The research then attempts to identify the extent of commonality of decarbonisation agendas and the potential effect on existing, and potentially supplementary, energy trade relations.

Methodology

As the focus here is on decarbonisation policy, the mechanisms for change of policy are changing elites or constellations of elite actors (change from above), societal attitude (change from below), and change facilitated by institutions that provide fora for interaction, persuasion and communication. The development of policy is traced, along with an analysis of discourse, to gain an insight into the development of EU and particularly Russian policy positions and objectives, and the drivers of these. We map out both discourse and practice, as well as problem framing, policy objectives and implementation. Utilising a policy tracing methodology to examine the development of government policy with reference to primary policy and

legislative documents permits an assessment of dominant ideas, and policy responses in both the EU and Russia.

As Herranz-Surralle has highlighted, it is important when considering (policy) practices to "distinguish[ing] analytically between the rules and their implementation or 'enactment"'[67] in order to explore gradual change. We examine the evolution of policy discourse and objectives, and then the implementation of these in terms of policy practices and the development of a legislative and regulatory framework. The linkage between energy, environmental, economic, and foreign policy objectives is also explored. The analysis here triangulates data from the academic literature, primary government documents and reference to 13 interviews with key actors in Russia and the EU. We examine three main research questions:

a) What are the dominant worldviews regarding energy policy in Russia and the EU? With regard to environmental security and more specifically climate change, what ideas do decision-making elites hold on climate change? Is this an issue that is considered to be happening, a problem and a priority?
b) How have these structured policy choices? What policy objectives have been set, and to what extent have these been implemented?
c) Has there been any change over time in understandings of energy security and climate policy choices? Does this indicate that trade and cooperation on decarbonisation technologies and energy trade will be a significant supplement to the existing hydrocarbon relationship?

3. EU decarbonisation policy, drivers and implementation

After the failure of a carbon tax proposal in the 1990s, the EU signed the Kyoto protocol as a bloc in 1997. This stimulated EU-level policies to reach the emissions reduction target[68] and led to a more ambitious period of EU environmental energy policy-making, amidst warnings about the dangers of climate change. Important 'enabling factors' included a "dynamic of competitive leadership reinforcement",[69] in which certain member states sought to demonstrate leadership, and the EU sought to project climate leadership internationally. The EU sought also to use climate policy to promote European political integration, and ideas of ecological modernisation and 'green growth' became more influential.[70] It was also considered that "in the 2000s, climate change clearly became part of 'high politics' as it was established as a top agenda item for virtually every bilateral, regional and global encounter of world leaders".[71]

Yet, as will be argued, this applied only to a limited degree in Russia. The EU's 2001 non-binding target for renewable electricity generation was followed with a Summit in late 2005 calling for renewed action on climate change and insecurity of supply.[72] The 2007 Europe 2020 Strategy and legislation in 2009 set for the first time binding national targets for renewables, of 20% by 2020. In October 2009 the EU's member states committed to reduce CO2 emissions by 80-95% by 2050.

This legislation contributed to an increase in renewables in the energy mix from 8% in 2004 to 15% in 2013,[73] and has been followed by a binding target at the EU level of 27% for 2030.[74] A non-binding energy efficiency target of a 20% reduction against projected use was set in 2009. The implementation of this has been broadly successful, with the target set to be achieved or missed by 1-2%.[75] The target has been increased to 27% by 2030.[76]

Drivers of EU energy and renewable energy policy: commitment to environmental policy and leadership and synergies with energy security

The European Commission makes a link between climate change, environmental security, and energy security. Commission interviewees argued that security of supply and climate change were objectives which in the mid to late 2000s became "mutually reinforcing…increasing efficiency and reducing demand required for both",[77] and that the "link with climate change in energy policy is [considered] permanent"[78] despite policy coordination issues.[79] This link, of environmental security as part of energy security, is far less emphasised by Russia. The Commission has argued that, "in the long term, the Union's energy security is inseparable from and significantly fostered by its need to move to a competitive, low-carbon economy which reduces the use of imported fossil fuels".[80] Climate change-related security risks were also prioritised to a greater extent in the 2008 version of the European Security Strategy, compared to the 2003 version.[81]

In December 2015, 195 countries adopted the long-term goal to limit global warming below 2°C. Prior to this the EU had committed to reduce CO2 emissions by 80-95% by 2050.[82] The future of coal power generation is one of the challenges faced by the EU member states. Whilst still accounting for a quarter of all EU electricity production, being competitively priced and limiting import dependence for some of the member states, coal-generating capacity declined substantially (by 24GW) between 2010 and 2014 and as the most carbon intensive fuel is a

priority for the EU to address.[83] The EU Emission Trading Scheme (ETS) launched in 2005 is currently in its third phase, and attempts to create a carbon price that will gradually phase out coal and other fossil fuels by pricing in the external cost of pollution. A surplus of allowances in the ETS, largely due to the economic crisis has resulted in lower carbon prices, weakening the incentive to reduce emissions.[84] It is too early to judge whether reforms will effectively counter this surplus and low carbon prices, though the EU is reducing the annual emissions cap, postponing the auctioning of allowances and bringing in a Market Stability Reserve in an attempt to address the surplus. The Industrial Emissions Directive also requires the most polluting coal power stations to be upgraded, or to close.[85] Limits on coal power generation are likely to lead to an increase in natural gas consumption and imports, including those from Russia.

Supply disruptions, decreasing domestic energy supplies, increasing competition for demand, and rising energy prices reinforced the view that ambitious renewable energy targets would reduce energy import dependency.[86] These dynamics also meant that post-2000, "the nexus between mitigation and energy security emerged as a powerful facilitator of multilevel reinforcement",[87] which led to the EU's renewable, emissions and energy efficiency targets and policies.

Baker has discussed a driver of decarbonisation policy, and that of leadership aspirations in environmental (energy) policy as 'ecological modernisation' – "environmental management compatible with the raison d'etre of the EU integration project…the construction of a neo-liberal, free market economy in support of industrial competitiveness",[88] combining economic growth with climate change mitigation. This has contributed towards the formulation and implementation of ambitious decarbonisation objectives. Baker argues that this commitment to sustainable development has been a key factor in the identity and actorness of the EU,[89] part of what Manners described as the EU's normative power.[90]

Toke and Vezirgiannidou[91] are more sceptical about whether energy security incorporates sustainability, and similarly, Skovgaard claims that the environmental energy policy in the EU in recent years has been characterised by a struggle between:

> "[T]he 'green growth policy frame' [which] defines the relationship between climate policy and economic growth as synergetic and consequently frames ambitious climate policy as a logical response to the crisis [and the] 'trade-off policy frame' [which]

> defines the relationship in terms of a trade-off, and consequently frames the crisis as limiting the scope for climate policy".[92]

Within the EU, the consensus regarding the norm of ecological modernisation is fraying somewhat. For example, Member States in Central Eastern Europe (CEE) have generally been less enthusiastic about ambitious decarbonisation targets.[93] A higher priority has been security of supply and the preference to pursue supply diversification strategies. As Kuzemko notes, there is an "increasingly contested internal ideational landscape"[94] informing climate and energy policy making in the EU. Decarbonisation has been associated with economic and consumer losses, and has been associated with reducing energy import dependence to only a limited extent.[95] CEE states have generally demanded, and received, concessions leading to less onerous targets and further financial assistance for their energy transition.[96] Economic arguments have also been increasingly influential in terms of constraining EU climate policy objectives, including those related to energy efficiency and renewables.[97]

This struggle has become more apparent since 2009. In March 2010, the Council requested an impact assessment of moving to a 30% cut in emissions by 2020, but was opposed within the Commission by DG Energy, DG Industry, and outside by Poland, Italy and some other CEE states.[98] In 2014, the European Parliament recommended 30-40-40 targets for renewables, energy efficiency and emissions respectively, the Commission counter proposed 27-30-40, and this was further reduced to 27-27-40 by October.[99] It is clear that ideological contestation exists both within and between EU institutions and member states.[100] Whilst the EU is set to reach and exceed its 2020 targets, implementation problems remain, and a number of its member states face difficulties reaching their targets without substantial revision of their current plans.[101] These member states may need to review their policies and engage more with the cooperation mechanisms proposed by the 2009 Renewables Directive; Article 9 allows Member States "to cooperate with one or more third countries on joint projects regarding the production of electricity from renewable energy".[102]

Directive 2009/28/EC names the Mediterranean Solar Plan (MSP) among "the projects of high European interest".[103] However, one of the flagship projects, Desertec, a €400-billion project which aimed to provide 15% of the EU's energy by 2050 using solar energy from the Sahara, was abandoned in 2013 amongst concerns about the cost of the transmission infrastructure, in particular.[104] Boute and Willems argue that electricity produced from biomass and onshore wind power in Russia's North-West is a better alternative, since Russia is already connected to

the electricity markets of Finland, Estonia and Latvia.[105] Joint projects generally remain at the potential rather than implemented stage, however.

Public consensus regarding the importance of the issue has also decreased. For example, in 2008, 62% of the general public of the EU considered climate change the most serious global problem.[106] This had dropped to 15% in 2015, though 47% still thought it one of the most serious problems the world faced.[107] Catalysts for decarbonisation policy in the EU have shifted from largely environmental security concerns in the early 2000s, to incorporating security of supply and price concerns since. In response to the financial crisis, decarbonisation targets have been scaled back somewhat; framed as a combination of climate change mitigation strategies, security of supply, and environmental security priorities. However, despite reduced political will for decarbonisation, EU targets remain ambitious in the global context. Vogler points to the discursive portrayal of decarbonisation objectives as "the ultimate 'win–win' or even 'win–win–win' set that aligns energy security with the security of the climate, ecological modernisation, and economic recovery".[108] In 2009, Energy Commissioner Piebalgs argued that "climate change and energy security are two sides of the same coin. The same remedies must be applied to both problems".[109] In setting decarbonisation targets for 2030, the 2014 EU-Russia-Ukraine tensions may have contributed towards an agreement despite the softening of environmental commitments, with the Climate Commissioner arguing in 2014 that the 2030 targets were "very good news for the climate…for investors…for Europe's energy security and independence. Meaning not such good news for Putin".[110] The EU has consistently presented itself as a leader on climate change.[111]

4. Russian decarbonisation policy, drivers and implementation

Russia's commitment to climate policies in 2015 is one that remains characterised by "compliance without implementation",[112] which Nikitina had noted in 2001. In the 1990s, Russian greenhouse emissions decreased by one third due to the economic recession.[113] However, further progress has been limited. Despite the key strategic documents adopted in the 2000s, acknowledging the necessity for greater integration of RES and improving energy efficiency, the regulatory and legal framework was underdeveloped, and state funding to decarbonisation projects limited - yet this does not capture the evolution of policy objectives, implementation and contestation.

Renewables

The 2003 Energy Strategy recommended increased investment in renewables, particularly biomass, with the objective of more than doubling 2000 production by 2020 (from 0.5% to 1% of total energy consumption).[114] In October 2004, the State Duma ratified the Kyoto Protocol,[115] and in March 2005, the Russian government developed the related National Action Plan,[116] setting a target of increasing renewable energy production by two-to-three times by 2008. However, the legislative base remained largely underdeveloped. Only in 2008 did the Russian government adopt Decree N 426 setting the rules for the qualification process for renewable energy generating installations,[117] but without a coherent implementation mechanism, and the 2008 target was missed.

The 2009 Energy Strategy paid more attention to renewables than its 2003 predecessor,[118] setting an ambitious target of increasing the share of RES in the Russian energy mix from 0.5% in 2009 to 4.5% by 2020.[119] Government Decree N 1-r set interim targets of 1.5% for 2010, and 2.5% for 2015.[120] Yet both the 2003 and 2009 Energy Strategies were considered to offer more "a guideline than a regulation",[121] without clear mechanisms of support to drive investment of RES and energy efficiency, or penalties for non-compliance.[122] Furthermore, a Federal Law regulating production of renewable energy does not exist in Russia. In particular, energy companies such as Gazprom do not consider development of renewable energy as their immediate priority.[123]

The share of RES in Russia increased from 0.5% in 2000 to 1% in 2010,[124]but in doing so missed the interim 2010 target of 1.5%.[125] By comparison, in the EU this figure had reached 12.5% in 2010,[126] exceeding the 12% target set in 2001.[127] As a corrective, a 2011 Implementation Plan prescribed the development of the legislative framework necessary for improving energy efficiency and increasing the share of RES in the Russian energy mix.[128] The share of RES in Russian energy consumption remained at approximately 1% in 2015,[129] and there has been a dramatic decrease in ambition; the draft energy strategy up to 2035[130] proposed to replace the 'optimistic' 4.5% 2020 RES target, with a more realistic target of 2.2%.[131] This is less than half the target set in 2009.[132]

The most significant progress has occurred in geographically remote regions disconnected from the central grids (e.g. the Far East). In these regions, conventional electricity generation is 30 times more expensive than central parts of Russia, and renewable energy is seen as a more affordable alternative.[133] For instance, 44% of the Tomsk region's budget is spent on energy

resources.[134] Economic motivation has stimulated the regional legislation process and, for example, the Republic of Yakutia has a regional law on renewable energy.[135] As Aalto et al. argue it is "profit interests, as part of a wider business frame, [which] most centrally guide Russian [energy] actors".[136]

However, even in these more remote areas progress remains insufficient, as there is considered to be both limited political will and a clash with economic interests of the established energy actors involved in sales of diesel fuel supplies to the region.[137] The biggest wind farm in Russia with a capacity of 5.1MW is situated in the Kaliningrad Region. In 2012, this produced 6.8% of all electricity in the region.[138] Most wind turbines were installed in the late 1990s, and now require major overhaul. In 2014, only 14 turbines out of 21 were in operation.[139]

State support is considered crucial for private investors, as the estimated return on the invested capital is up to 15 years,[140] due to difficulties in the qualification process and connection to central electricity grids.[141] An investment of €7bn is required to increase the share of RES in Russia to 2.5% by 2020.[142] However, in terms of state funding the oil and gas sector has a priority.[143] Incoherence of legislation makes it difficult for private sector to invest into development of renewable energy.

The existing legislation regulating installation of new RES generating facilities limits the scale of renewable energy production. To connect a RES generating facility to the energy grid, it should qualify and be selected through the tenders set by the authorities in the Federal Subjects.[144] However, the qualification process is complex and includes a variety of different criteria, including the local content requirements. These require all RES installations to be at least partly produced or assembled in Russia.[145] These 'localisation' targets increase year on year. In 2014 the local content requirement for wind power generating facilities was 35%.[146] Foreign technology is then restricted, but foreign direct investment is too, as there is a reluctance to support Russian companies that lack a track record of production,[147] and Western sanctions have reduced investment opportunities.[148] Due to the complexity of qualification process it can be challenging for potential investors to fulfil all the requirements in time for the tender.[149]

Energy efficiency

Due to aging infrastructure, Russia's energy intensity is considerably higher than that of the EU.[150] The 2003 Energy Strategy indicated that this was an issue that should be addressed, with

energy saved domestically used for export purposes.[151] Furthermore, the Russian government recognised that improving energy efficiency is necessary for reducing CO2 emissions.[152] Provisions on energy efficiency were included in all chapters of the 2009 Energy Strategy to 2030,[153] and tackling climate change was discussed prominently.[154] In 2013, the Ministry of Economic Development stated that, "improving energy efficiency should be considered as an important precondition for future economic growth".[155]

Compared to legislation on renewable energy, the regulatory and legal framework on energy efficiency is more developed. There are regional and municipal energy efficiency programmes. For example, in Perm €115,000 was allocated to energy efficiency project in 2010-2015 to implement energy efficiency policy objectives.[156] With the 97 registered Joint Implementation projects it was clear that energy efficiency was also the priority, with only 6 projects focused on renewables – all of which concerned hydropower projects.[157] A 2009 federal law defined the legal, economic and institutional mechanisms of support for improving energy efficiency.[158] The law prescribed the further development of the legal and regulatory framework. Between 2009 and 2015, 12 laws were revised and amended.[159] In 2009, penalties were introduced for non-compliance,[160] however these are not considered strict enough,[161] equivalent to only €7,000-8,500.[162]

The 2020 Energy Efficiency Programme mentions the success of reducing energy intensity by 5% a year between 2000 and 2008.[163] Yet whilst the energy efficiency of the public and housing sectors has demonstrated gradual improvement, industry and transport have failed to achieve substantial changes. The main decrease in energy intensity is a result of economic restructuring towards lighter industry rather than energy efficiency measures,[164] and funding cuts are now planned by the government. In 2015, the government planned to allocate €174m to energy efficiency projects, €152m in 2016, and only €113m in 2017.[165]

Drivers of Russian energy and renewable energy policy

Russian decarbonisation objectives are then substantially less ambitious relative to the EU. This is not surprising, considering that fossil fuels have been the main focus of Russian energy policies since the early 1990s,[166] and in May 2014 Putin confirmed that, "we will focus on the production of hydrocarbons and the development of nuclear generation".[167]

In contrast to the EU, climate change does not play a significant role in shaping Russian energy policy. In Russia, policy-making is executive dominated,[168] and neither the executive nor the

public have considered climate change particularly salient an issue.[169] Where Russia has played a more active, or constructive, international role this coincided with a change (albeit qualified) at the executive level. As President, Medvedev considered it a foreign policy objective to contribute as a leader to debates at the Copenhagen climate conference in 2009 which was linked to the adoption of the Russian Climate Doctrine at that time.[170] Modernisation and reform of the economy was considered important for domestic but also international reasons: reasserting great power status. An evolved strategic partnership with the EU (manifested as the EU-Russia Partnership for Modernisation), was also considered important, and included the objective of decarbonisation and tackling climate change.[171]

Medvedev argued in 2009 that Russia must "become a leading country measured by the efficiency of production, transportation and use of energy",[172] and a year later linked climate policy, modernisation and national security.[173] Whilst the President is not the only institutional veto player, climate and energy policy in Russia is concentrated in and around the executive, and the Russian Ministry of Energy which coordinates the EU-Russia Dialogue is considered to have relatively little influence over Russia's energy policy.[174] With Putin's return to the Presidency in 2012, Medvedev's modernisation initiative faded, having achieved little, and a focus on climate change receded. Despite some explicit statements on the international stage to the contrary,[175] it has been widely claimed that Putin has been sceptical about the importance of tackling climate change and influenced by those who doubt both the anthropogenic cause of climate change and also the extent of any negative influence on Russia.[176] It is considered that there is a strong presence of 'climate-sceptic' group advising the policy-makers against committing to any greenhouse gas (GHG) reduction targets,[177] fitting within a Skovgaard's description of a "trade-off policy frame"[178] that emphasises the economic cost of commitment.[179]

Despite this, a small climate coalition of NGOs, academics, the media and actors within the Ministries of Economic Development and Foreign Affairs, the Presidential Administration, and UNFCCC negotiators are trying to "shift climate policies upwards on the political agenda".[180] For example, in June 2015 at the Saint Petersburg Economic Forum, the Environment Minister argued that by 2030 Russia could be losing 1-2% GDP p.a. as a result of climate change.[181] Russia committed in 2013 to limiting GHG emissions to 70-75% of 1990s levels,[182] and reaffirmed this in 2015 in the run up to the Paris UN Climate Change conference, albeit offering limited details on the implementation plans.[183] The Russian government also plans to develop

a system recording GHG emission volumes at major enterprises,[184] and this may lead to the creation of the GHG emission-trading scheme.[185] However, as argued by Korppoo et al., environmental concerns are officially supported internationally by Russian actors, "'mirror[ing]' the rhetoric of the negotiation partners in order to promote some other interests, especially those related to foreign policy, national image or economic benefits"[186] but "are almost completely absent as a supporting argument in the domestic debate".[187] There is a lack of an environment-related policy driver. It is for this reason that it is important to assess policy implementation and evolution as well as documents designed at least in part to satisfy and impress an international audience.

Public opinion polls demonstrate a low level of awareness and concern of the potential negative consequences of the climate change, though some change. The number of people surveyed who thought that climate change was a problem increasing from 20% in 2005 to 28% in 2010.[188] However, in 2013, only 9% of respondents admitted that they are trying to use energy more efficiently for environmental reasons.[189] The issue receives low coverage in politics and the media.[190] This is important as it has been argued that the media can act as a catalyst for public pressure on climate policy-making,[191] with energy transitions requiring a broader debate if established institutions and discourses are to be challenged, [192] a situation which was lacking in 2015 in Russia.

The economic motivation for energy saving could become more significant due to the weakening of the Russian economy in 2014-15, and the 2009 energy efficiency law, which did recommend raising awareness of the general public about energy efficiency and energy savings.[193] Also, as part of WTO commitments and ongoing EU-Russia cooperation, Russia will need to increase domestic energy prices, as household prices are regulated and industrial prices partly regulated.[194] This would also help renewable energy technology compete in the market. Since 2010 Russia has increased regulated gas prices, however they are still lower than European gas prices.[195] In 2013, consumer energy prices increased by 10% as compared to 2012.[196] According to the Ministry for Economic Development, prices would then increase by 4.5-8.5% per year until 2017,[197] yet in September 2015 they were frozen until 2016.[198] Existing pricing policy limits the ability to use price signals to encourage consumers to use energy more efficiently,[199] however energy price liberalisation is limited for "social and competitiveness reasons".[200]

To overcome the problems with development of new natural gas fields and to meet export obligations, Gazprom needs to invest up to €18 billion p.a. until 2030.[201] However, it has been estimated that increasing its energy efficiency, Russia could save the equivalent of 240bcm of natural gas and the equivalent of 43 million tons of crude oil.[202] Annual Russian domestic consumption increased by approximately one quarter from 1997 to 2012.[203] Minimising domestic energy use through energy efficiency measures maximises export volumes, and the Russian Energy Strategy up to 2030 states that Russia can potentially save up to 40% of domestic energy consumption.[204] Shifting a proportion of investment from hydrocarbons to energy efficiency and renewables then could be perceived as economically rational. Despite a lack of government support, Rosneft announced a 2014 plan for energy efficiency to spend €1bn in 5 years, and Lukoil and EN+ both established 'green' daughter companies, ECOENERGO and EuroSibEnergo respectively.[205]

However, a Russian non-governmental actor outlined the main obstacle to realising the potential for RES, the lack of confidence in state support for the sector,[206] and this was confirmed by a representative of Gazprom.[207] Security of demand for conventional Russian energy sources and economic interests drive Russian energy policy. However, we have identified points of ideational contestation. Within government, particularly under Medvedev's presidency, there was also increased focus on the issue. Whilst there remains a hegemonic discourse that reflects a worldview that understands energy policy as focused on prioritising competitiveness and security (of demand), there is a small but growing public concern with pursuing more energy efficient and renewable objectives, and an energy industry which recognises the opportunities but bemoans lack of political support. This remains a point of potential mutual interest, on which it is argued that Russia may be receptive to European ideas, expertise, and financing related renewables and energy efficiency.[208]

5. Conclusion:

In terms of policy discourse, joint statements within the EU-Russia energy dialogue discuss a shared understanding of the *potential* for strong mutual benefit in developing a decarbonised relationship predicated on the trade of renewable energy (technology and physical flows) and energy efficiency technology. However, the desired "partnership" and "strong basis for deeper EU/RF cooperation"[209] remains ambitious and largely declarative. Whilst a convergence of commercial interests and infrastructural interlinkages sustain gas trade despite poor political

relations, there is little similar convergence of commercial-economic interests in relation to decarbonisation. Our analysis identified the following three problems related to divergent values: External energy policy strategy; types of energy governance systems and; understandings of energy security.

1) External energy policy strategy

Russia has resisted attempts by the EU to export its liberal market rules, for example with the ECT. Whilst Russia has long explicitly linked energy policy to foreign policy, this is also increasingly a characteristic of EU external energy policy in part as a result of this failure. As argued by authors such as Goldthau and Sitter, Gower and Timmins, Klinke, and Kuzemko[210] the monolithic dichotomy of a modern EU and postmodern Russia is flawed. The diversification of energy suppliers is now considered an EU priority, with political and financial support offered to realise projects that would not otherwise be commercially viable. The Ukrainian crisis led to sanctions since 2014 which limited the access of some major Russian energy access to European energy markets,[211] and the EU-Russia Energy Dialogue was suspended. These problems limit the ability of the EU to use its normative power to export its values to Russia, and the EU explicitly discusses diversification away from Russia, increasing bargaining leverage in negotiations and bringing Russian energy companies into compliance with EU legislation.

2) Types of energy governance

The EU has to a large extent, until recently, relied on the market to deliver security of energy supplies. By contrast in Russia, particularly in the gas sector, there is more state intervention. Whilst many major international energy companies continue to invest, a series of events have increased risk and reduced opportunities, and smaller and medium-sized actors have been discouraged from investing in Russia.[212] Partial expropriations and raids on international energy companies since 2006[213] have been combined with broader concerns relating to the rule of law, inconsistency of Russian legislation, and 'localisation' targets which undermine foreign investment in renewable energy projects. EU investors perceive Russia as a higher risk country as a result, and Russia continues to prioritise the development of its domestic industry.[214]

3) *Understandings of energy security.* Prioritisation of environmental security varies significantly. This has had a substantial effect on policy-making and objective setting, and also on implementation. Particularly in Russia, objectives to date are unambitious, inconsistent and poorly implemented. There is negligible institutionalisation of the non-hydrocarbon energy relationship in terms of joint projects. Most of what was trialled was short term in nature and related to the Kyoto Protocol, which is no longer applied by Russia. Cooperation is limited to small-scale projects, such as exports of electricity to Finland from hydropower stations in Russia. The central role of the hydrocarbon trade for ensuring long-term economic growth has resulted in insufficient political will to develop, maintain and implement decarbonisation objectives. Commitment to climate policy in Russia has varied slightly, but generally has been low. The priority is security of demand for energy exports. In contrast, environmental security concerns remain a priority in the EU, despite concerns regarding economic costs of decarbonisation and the link between security of supply and climate policy, which decreases demand for imported energy.

These differences provide a significant obstacle to cooperation on decarbonisation objectives. However, the argument which has been advanced is that ideas about energy policy and security are contested and subject to change and there exists significant potential for mutual gain and cooperation in the longer term, particularly in an area less politicised than other aspects of the EU-Russia (energy) relationship. There is little evidence yet of collectively held norms related to the relative importance of the environmental dimension of energy security, and insufficient recognition of the economic potential of decarbonisation policies in Russia. However, we assume understandings of energy security are dynamic and have identified change in EU and Russian energy policy with regard to decarbonisation. Though modest this supports Kuzemko's explanation of the role of ideational contestation in the formulation of policy. Whilst these have had limited influence to date our empirical analysis has concluded that worldviews of energy are being challenged by alternative discourses in both the EU and Russia, with coalitions of actors opposed to the status quo. However, these have had limited influence to date.

The EU-Russian hydrocarbon relationship will continue to take precedence over cooperation on decarbonisation objectives. In the short to medium term Russia will remain a strategic provider of natural gas supplies to the EU, just as the EU will remain a strategic export market for Russian gas. The development of EU renewables will contribute to maintaining gas demand because of a growing reliance on gas as back-up capacity and also as a cleaner transition fuel than coal. Russia is likely to continue to meet a substantial if not increasing volume of this

(even if the percentage of imports decreases). This will maintain, and could deepen, the EU-Russia gas relationship through to at least 2035. Even in the context of decarbonisation, natural gas will remain a core component of the EU-Russia energy relationship.

Decarbonisation policy practice may reflect cooperative discourse if it is 'successfully' framed either in economic and/or environmental terms in Russia. This may follow a change of elites/elite attitudes such as that found, to a limited extent, under Medvedev's presidency, a change of societal attitudes with concern about climate change continuing to increase from a low level, or a desire to be internationally influential or reacting to pressure from agreements made at international climate change negotiations. In Russia, as in the EU, it is evident that despite a dominant understanding of energy policy there is ideational contestation. There exists in the former a small coalition of actors in the media, academia, industry and government that promote greater commitment.

The existence of the EU-Russia energy dialogue allows, if resumed, for the mechanisms of argumentation and persuasion, an opportunity for the EU to exert soft power through knowledge based authority regarding renewable and energy efficiency policy. The issue is also one less politicised than fossil fuel energy trade, and is a good basis for developing this dialogue. Further research is required, in particular to assess the influence of alternative discourse and climate and energy policy-making in Russia, the implementation of post-2020 climate and energy policy in the EU, and the effect of any resumption of the EU-Russia energy dialogue. The EU and Russia will continue to have a significant energy relationship for decades to come, and this will be significant for broader foreign relations and also for the successful implementation of the Paris climate conference which requires the active participation of both actors.

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List of interviews:

Interview #1: Permanent representative interview, 2010.

Interview #2: Commission official, 2010.

Interview #3: Commission official, 2010.

Interview #4: Commission official, 2010.

Interview #5: Commission official, 2013.

Interview #6: Gazprom representative, 2010.

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Interview #8: Commission official, 2010.

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