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Russian Industry Responses to Climate Change: the Case of the Metals and Mining Sector

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Abstract

Globally, the metals and mining sector is a major contributor to greenhouse gas emissions. Climate change also poses significant challenges for the industry in a number of ways, including risks to infrastructure and equipment, transport routes and the cost of energy supplies. The sector is of particular importance to Russia, and yet very little is known about how the sector positions itself in relation to this important issue. This paper conducts an in-depth look at the response of the Russian metals and mining sector to climate change. It looks at the key actors, their willingness to engage with the issue of climate change, preferred policy options, and the strategies adopted to further their interests. The role of companies, prominent individuals and business associations is considered. The evidence suggests that while there is widespread acceptance of climate change as a phenomenon, there is significant variation within the sector, with some companies proactive on climate policy, and others more reluctant. Different responses are attributed to reputational factors and the disproportionate influence of international and domestic policy developments on companies. Russian coal companies, directly threatened by any international attempts to reduce coal consumption, display the strongest opposition to efforts aimed at curbing emissions. The Russian government, far from thinking of transitioning to a low carbon future, is vigorously trying to expand the coal industry.

Key Policy Insights

- Understanding how Russia's domestic position on climate policy is formed is fundamental for understanding the factors driving its international engagement on climate policy.
- The Russian government has no plans to phase out coal, and is instead actively seeking to expand the coal industry. This highlights the obstacles to Russia's commitment to climate policy at both the domestic and international levels.
- The socio-economic consequences of climate policy for the Russian coal industry are a key consideration for the government, with some regions heavily dependent on the industry for employment and electricity generation.

Keywords

Russia; climate change; metals and mining industry; coal; environment; state-business relations.

Russian Industry Responses to Climate Change: the Case of the Metals and Mining Sector

Introduction

Russia is one of the top five largest contributors to global greenhouse gas emissions (GHG), and a major exporter of fossil fuels. The country has very high CO_2 emissions per unit of GDP and an inefficient energy sector. Its participation in international efforts to address climate change is vital and yet Russia has been a reluctant player in international negotiations. After some delay, Russia ratified the 1997 Kyoto Protocol but failed to sign up for the second commitment period. More recently, the government has stated that it intends to ratify the Paris Agreement, although, at the time of writing, a final decision on the matter had not yet been reached (Ministerstvo Prirodnykh Resursov, 2017). Russian policy on climate change is weak. Russia's Intended Nationally Determined Contribution (INDC) is to reduce emissions by 25-30% below 1990 levels by 2030. However, economic decline in the 1990s following the collapse of the Soviet Union led to a significant reduction in GHG emissions, making this a fairly easy target to achieve. The Climate Action Tracker has rated Russia's response as 'critically insufficient', noting that the government's INDC 'not only lies significantly above the emissions levels projected under current policies but also is one of the weakest put forward by any government' (Climate Action Tracker, 2017).

Domestic policy is set out in a number of documents, including the 2009 Climate Doctrine which establishes the main priorities and objectives for climate policy in Russia (Prezident Rossii, 2009). For the most part, the primary focus of Russia's climate policy has been on energy saving and efficiency measures and the modernisation of industry, as outlined in the Energy Strategy of Russia to 2030, and Presidential Decree 889 'On some measures to improve the energy and environmental efficiency of the Russian economy' for example. Further to this, the government is due to submit legislative amendments to the Duma (the Russian Parliament) which obliges companies to report their GHG emissions (Davydova, 2017).

How has industry responded to these developments? Have they sought to lobby the government to keep Russia's climate policy weak? Have they ignored the issue of climate change altogether? Or have they pushed for a clearer and more certain policy on climate, even at the expense of additional environmental regulations? The aim of this paper is to answer these questions by exploring industry actors and their interests. Focusing specifically on the Russian metals and mining industry, the paper aims to gain an understanding of how industry actors in this sector perceive the issue of climate change, their willingness to engage in policy debates, the policy options they are advocating and the strategies they adopt in order to further their agenda. A key objective is also to understand how perspectives vary within the metals and mining industry.

The literature on Russia and climate change is extremely limited in comparison to other large emitters such as the US, China and the EU. A small but growing number of studies have

evaluated the development of Russia's climate policy, including the interplay between domestic politics and Russia's behaviour at the international level (Andonova & Alexieva, 2012; Henry & Sundstrom 2007; Henry & Sundstrom 2012), the influence of international climate politics on Russia's domestic position (Andonova, 2008), the framing of climate policy (Tynkkynen, 2010), media coverage (Poberezhskaya, 2016), and the role of scientific experts in policymaking (Wilson Rowe, 2013). A number of works have pointed to the role of industrial interests in shaping climate policy in Russia, including creating a support base for ratification of the Kyoto Protocol (Andonova, 2008), and business interest in Joint Implementation projects (Korppoo, 2007). However, few works have considered the behaviour and attitudes of specific industries within Russia to climate change and their ability to shape domestic policy.

Beyond Russia, considerable attention has been paid to the role of business actors in climate politics, although most works are concerned with Western liberal democracies. Research has explored the variety of strategies employed by business in response to climate policy, including voluntary commitments and forms of private regulation (Bulkeley & Newell, 2015); individual firm-level emissions targets, and membership in associations which advocate joint action (Jones & Levy, 2007); and how corporate actors seek to influence policy, by advocating market-based solutions (Kolk & Pinkse, 2007), or building the momentum for carbon trading (Meckling, 2011).

In examining the role of business as a potential collaborative partner for government in policy formation, Kim and Darnall (2016) develop a typology of business responses to mandatory regulation, using climate change as a policy example. For them, there are four types of response (proactive, anticipatory, defensive and reactive) that vary depending on political position of companies and social responsiveness. Firms that are politically active (proactive or defensive) engage in lobbying, while inactive firms (anticipatory or reactive) are disengaged from the political discussion. Firms will also be either supportive (proactive or anticipatory) or unsupportive (defensive or reactive) toward a political concern: such as climate regulation (Kim & Darnall, 2016, 329-30). This article adopts this typology in order to evaluate the different perspectives adopted by Russian metals and mining companies. While Kim and Darnall use their typology to identify where opportunities for government-firm collaboration might lie, it also provides a useful frame for identifying obstacles to policymaking and the challenges associated with trying to incorporate non-state actors into the process.

Literature on specific industries is more limited. Research has explored how the global oil industry has responded to the politics of climate change including divergent policy trajectories found within the industry (Pulver, 2007), and the different strategies of major multinationals (Levy & Kolk, 2002; van den Hove, Le Menestrel & de Bettignies, 2002; Skjærseth & Skodvin, 2001). More recently, Downie (2017) has explored US coal and utility actors, highlighting that while there was strong opposition from coal companies to regulatory measures to limit emissions, the utility industry was more divided. This study therefore seeks to build on this literature in two ways: by broadening the scope of the literature to include Russia, a non-Western and non-democratic country, and by contributing a case study on the relatively understudied metals and mining sector.

In order to examine the responses of industry actors to climate policy, a sample was taken of the largest companies in the metals and mining sector. Analysis of a range of documents was used, including corporate environmental and social responsibility reports (CESR), which are widely used in the literature examining business responses to the environment (Allen & Craig, 2016, p.8). While there are of course limitations in using information based on self-reporting from companies (if for example there is no independent verification of the actions taken), they represent an important communication tool for corporate actors to indicate their commitment to CESR to both internal and external stakeholders (Allen & Craig, 2016), and point to the steps taken to incorporate climate issues into decision-making. CESR reports are supplemented by industry and business association reports, government documents including meeting transcripts, and media reports.

The article is structured as follows: first, an overview of metals and mining in Russia is given. Second, an examination of key industry actors and their interests is presented. Third, a case study of the coal industry is presented, focusing on Russia's largest coal company, Siberian Coal Energy Company (SUEK), and its oligarch owner, Andrei Mel'nichenko. In some ways SUEK is exceptional, given its level of participation in policy debates and the prominence of Mel'nichenko. However, the focus on SUEK provides a valuable insight into the arguments put forward by the coal industry against climate policy, in both economic and social terms, as will be discussed. Furthermore, the company represents a significant share of Russia's coal industry. SUEK is significantly larger than its nearest competitor, producing 105.4 million tonnes (Mt) of coal in 2016 (SUEK, n.d.-b) in comparison with Kuzbassrazrezugol' which produced 44.3 Mt (Kuzbassrazrezugol', n.d.). SUEK's contribution represented nearly one-third (27%) of Russia's total production (385.7 Mt) for the year (Ministerstvo Energetiki, n.d.-a). Its size and prominence make it worth investigating in some detail. Finally, consideration is given to prospects for collective action on climate policy within the metals and mining industry.

Metals and Mining in Russia

Metals and mining is of great importance to the Russian economy. In 2014 for example, the industry had total revenues of US$121.6bn (MarketLine Industry Profile 2016, p.7). In 2014, iron and steel was the largest sector, worth US$80bn, representing 65.9% of the total value of the industry. This was followed by precious metals, worth US$14.5bn (12%), then base metals, worth US$11bn (9%). Coal was worth US$9.2bn (7.6%). Finally, aluminium was worth US$6.8bn (5.6%)(MarketLine Industry Profile, 2016, p.11).

Globally, Russia is one of the largest producers of a range of metals, including nickel and palladium.[1] It is the world's fifth largest producer of steel, accounting for 4.3% of global production in 2014 (BMI Research, 2015, p.9). Russia is the world's second largest producer of aluminium and one of the world's largest exporters (BMI Research, 2015, p.13).

[1] Palladium is a platinum group metal used primarily for making catalytic converters in cars but has a range of other uses including jewellery and in the electronics industry.

The Russian metals and mining sector is highly concentrated, with a number of large, private Russian companies, and limited state ownership. There is little foreign ownership.[2] Russian metals and mining is also heavily dominated by a number of prominent individuals: the so-called 'oligarchs'. Two key figures feature in this account: Oleg Deripaska and Mel'nichenko. For more detail on the metals oligarchs, see Fortescue (2006; 2013).

The industry is also a big emitter of greenhouse gases. According to the UN Framework Convention on Climate Change (UNFCCC), if we look at GHG emissions for the Russian Federation by sector[3] (without land use, land-use change, and forestry), industrial processes (excluding energy use) accounted for 7.89% of the total in 2012. Of this, the metal industry (category 2.C[4]) accounted for 50.69% of the total in 2012; while the mineral industry (category 2.A[5]) accounted for 27.30% (UNFCCC, 2015). Significant amounts of fuel and energy are also used during mining and metallurgy; the figures for which are reported in category 1.A.2.a (iron and steel).[6] For example, 46237.22kt of CO_2 are reported for 2015 in the 2017 Russian Inventory Report (Russian Federation, 2017b). In addition, coal mining releases significant amounts of methane (reported in category 1.B.1.a). In 2015 for example, total methane emissions were 2.5 million tons (Russian Federation, 2017a, p.71).

The mining and metals sector is also likely to be heavily affected by climate change. A range of potential challenges for the industry exist, including risks to infrastructure and equipment, transport routes, and the cost of energy supplies (Arent et al, 2014, 676; Schuchard, & Nelson, 2011; ICMM, 2013). Within Russia, the impact of climate change on industry includes the increased risk of forest fires and floods, more intense and widespread droughts, risks to human health, and damage to infrastructure including railways, road and pipelines from permafrost degradation (Roshydromet, 2014). There are also a range of regulatory risks including government regulations on GHG reporting and energy efficiency targets, noted above.

Actors and their interests in the metals and mining industry

This section explores the strategies adopted by some of Russia's largest metals and mining companies to respond to climate change and policy developments in the area, turning first to individual companies followed by an assessment of the prospects for collective action on climate from industry actors

Companies

[2] Russia's Strategic Sectors Law (Federal Law No. 57-FZ, 29 April 2008) places limits on foreign access to areas of the economy designated as 'strategic'. The law requires approval by the government of foreign investment in activities that hold strategic importance (article 6), including the geological study, exploration and extraction of minerals in subsoil blocks of 'federal significance' (point 39). This includes diamonds, nickel, platinum metals and uranium.

[3] UNFCCC reporting guidelines require Annex I Parties to the Convention (including the Russian Federation) to provide an annual GHG emission inventory broken down by sector.

[4] This includes the production of iron and steel, ferroalloys, aluminium, magnesium, lead and zinc.

[5] This includes the production of cement, lime and glass.

[6] Russia does not provide separate statistics for category 1.A.2.b (non-ferrous metals) and f (non-metallic minerals).

At the most basic level and in line with the Russian government's approach, a number of large companies have concentrated primarily on reducing energy consumption and introducing ways to address energy efficiency. Magnitogorsk Iron and Steel Works (MMK), a steel producer, for example, monitors energy consumption and has a programme to address energy efficiency (MMK, 2015). Beyond this, however, MMK has little engagement on climate change. Similarly, Novolipetsk (NLMK), another steel producer, focuses on energy efficiency and has a specific company energy policy aimed at rationalising use of resources and introducing new technology (NLMK, 2015, p.40).

Some companies report that they have started monitoring and reporting on GHG emissions. Evraz, for example, is a large steel and mining company, and the largest coking coal producer in Russia (Evraz, n.d.; Evraz, 2015, p.9). The company reports its emissions annually, and devotes attention and resources towards energy saving measures (Evraz, 2015, p.93). In addition to reporting on their GHG emissions, a number of companies have internal climate policies. Polymetal International, for example, a leading producer of gold and silver, monitors and reports on GHG emissions, has a dedicated policy for managing its carbon emissions, and an energy efficiency programme (Polymetal, 2015, p.32; Polymetal, n.d.). Similarly, Severstal, one of the world's largest steel producers, has an environmental policy which includes climate related goals, such as the reduction of GHGs and optimising energy use (Severstal, 2011). They also have set targets for reducing emissions (Severstal, 2015, 108). These companies are broadly anticipatory (Kim & Darnall, 2016) in nature, focusing on internal actions such as energy efficiency and GHG monitoring, but not engaging in wider political debates.

The companies that have the most progressive internal responses to climate change also have external strategies and are engaged in policy debates both within Russia and internationally with their industry colleagues. Their participation takes a variety of forms, which can be considered broadly proactive. There are four key companies of note: Polyus, Metalloinvest, Alrosa and Rusal.

Polyus Gold is Russia's largest gold producer, holding the world's second largest gold reserves (Polyus, n.d.-b). The group reports its GHG emissions annually, and has an internal policy focused on exploring renewable and low-carbon sources of energy (Polyus, n.d.-a). Polyus's most important strategy has been its membership of the International Council on Mining and Metals (ICMM), which is an international group of companies whose stated aim is to strengthen 'environmental and social performance' in the mining industry (ICMM, n.d.). Polyus is the only Russian member of ICMM, which it joined in 2015, having met a number of social and environmental performance measures.[7] In October 2015, all ICMM members (including Polyus) adopted an official statement on climate change, with the organisation lobbying for a global agreement on climate change, a price on carbon, and market mechanisms to reduce GHG emissions (Polyus, n.d.-a).

[7] According to ICCM, 'Polyus Gold was recommended for membership by an independent expert review panel in a process that closely scrutinizes the adherence of the applicant company to responsible social and environmental performance in mining and metals operations' (ICCM, 2015).

Metalloinvest, an iron ore and steel company, identifies environmental issues such as reducing GHG emissions as a priority. It reports its GHG emissions, and has concentrated on equipment modernisation and improving technology, together with energy efficiency programmes (Metalloinvest, 2015). As part of the company's external strategy, Metalloinvest is also a member of the World Steel Association (WSA), the primary industry association representing steel producers. It participates in the WSA's Climate Action programme, which collects data on CO_2 emissions from its members, which is then intended as a resource to help guide individual company policy. It should be emphasised however that the WSA does not make this data publicly available (WSA, n.d.).

Alrosa, a group of state owned diamond mining companies, is another of the proactive companies. Alrosa does not have a stand-alone climate strategy, but does address the issue in its CESR reporting. It monitors GHG emissions, has guidelines for reducing emissions, and a programme aimed at energy efficient technologies and energy conservation. Alrosa has an official position on climate change, stating that it is a 'global problem, the solving of which should involve all industrial enterprises that have an impact on the atmosphere along with both global and state participation' (Alrosa, 2015, p.78). Alrosa has also joined the Climate Partnership of Russia (CPR), a voluntary business initiative aimed at coordinating climate change mitigation efforts, discussed below.

The leader amongst Russian metals and mining companies on climate is Rusal, which is one of the world's largest aluminium producers. Its operations cover the whole spectrum from bauxite mining to aluminium production (BMI Research, 2014, p.59). Internally, the company has a range of climate related actions. For example, in 2007 the company initiated the Strategy for a Safe Future, which aimed at reducing its impact on the climate (Rusal, 2015, p.64). Like Alrosa, Rusal initiated a GHG accounting system in advance of legislation (Rusal, 2015, p.66), and in 2014, the company claimed to have reduced emissions 'by 50% up to the level of 1990' (p.5). The company also has five strategic goals, including reducing its carbon footprint, improving energy efficiency, and introducing 'green' technologies (Rusal, 2015, pp.64-5). Most notably however, Rusal has been engaged in external activities. In 2008, Rusal joined the UN Global Compact 'Caring for Climate: Business Leaders Platform for Action', an initiative which facilitates business commitments on climate. Rusal is one of only two Russian companies to join.[8] The company was instrumental in setting up the CPR, discussed below.

No doubt one of the driving forces behind Rusal's environmental image is the president of the company, oligarch Deripaska. Deripaska has significant interests in the metals and mining sector, and owns a 48.13% share in Rusal through his En+ group. Rusal also owns 27.82% of Norilsk Nickel, the world's largest nickel and palladium producer (Forbes.ru, n.d.). Deripaska is also a frequent spokesperson on environmental issues, having displayed a complex and at times contradictory attitude towards the environment in the past. For example, despite being associated with notoriously polluting enterprises such as Norilsk Nickel, Deripaska is also chair of the Russian Union of Industrialists and Entrepreneurs (RSPP) Environment Committee. In this role, he has participated in a number of important debates in recent years, including the

[8] The other is the Svirin Family, a furniture retail business.

introduction of the 'best available technology' principle into Russian legislation, which requires companies to modernise their industrial production processes in order to achieve the best possible environmental outcomes.[9] Deripaska was broadly supportive of the aims of the policy, although he lobbied hard for industry concessions throughout the process (see Martus 2017a).

On climate policy, Deripaska has been active both within Russia and internationally. According to his own website, Deripaska, 'is one of the staunchest advocates for [the] introduction of a global carbon tax', and supports the creation of an international carbon fund using revenues from the tax to invest in 'innovative renewable projects' (Deripaska, n.d.). At the same time however, it is important to note that Deripaska has significant interests in coal through his En+ Group. Deripaska has emphasised that he would not move out of coal, and has argued that there is a need to find alternative ways to use coal rather than shift away from use altogether (Clark & Sanderson, 2015). While this is far from unexpected, it does temper somewhat his image as a metals oligarch turned international climate crusader.[10]

The case of the coal industry

As an industry, coal represents something of a special case within the broader metals and mining sector, because its very existence is directly threatened by climate change mitigation policies that necessarily imply a shift away from coal. After considering the importance of the industry for the Russian government, this section focuses on the response of SUEK and its owner, Mel'nichenko to climate policy debates, including the socio-economic framing of the debate by the coal industry.

Globally, Russia is a major coal producer. It has the world's second largest reserves of recoverable coal (BMI Research, 2017, p.9), and in 2014 was the third largest exporter (WCA, n.d.). The coal industry is very important for the Russian economy. In 2014 for example, the coal sector was worth US$9.2bn (MarketLine Industry Profile, 2016, p.11). According to the Ministry of Energy, in 2016, 385.7 Mt of coal were produced (Ministerstvo Energetiki, n.d.-a), and approximately 15% of Russia's electricity generation came from coal (BMI Research, 2017, p.16). Furthermore, a great deal of coal mining takes place in single-industry towns or in areas heavily dependent on the industry, and as a result, there are important socio-economic concerns for the government.

The importance attached to the coal industry by the government is most clearly demonstrated by the significant state investment in the sector, with 35 billion roubles (approximately US$0.6bn) allocated to the restructuring of the coal industry from 2016 to 2020 (Ministerstvo Energetiki, n.d.-b). Coal is also an important element of Russia's Far East development policy,

[9] For more detail on the policy, see Martus, 2017b, pp.133-5.

[10] It is also worth noting that a key motivation for Deripaska and Rusal is trying to ensure the competitiveness of Russian aluminium in the face of Chinese exports. Rusal has pointed out on numerous occasions that 90 % of electricity used in its smelting plants comes from hydroelectricity, whereas China's smelters are powered by coal (see for example, Mukhamedshin, 2017).

and connected with the expansion of railways and port development in the region (see Fortescue, 2016).

There are a number of key strategic policy documents aimed at stimulating the industry. The most important of these is contained within the State Programme (*gosprogramma*) on Energy Efficiency and Energy Development; with the sub-programme 'Restructuring and Development of the Coal Industry' devoted specifically to the industry. The programme was approved by Medvedev on 7 December 2015, with the Ministry of Energy responsible for its implementation.[11] The sub-programme sets out the main priorities for the government, including the modernisation of existing enterprises, the creation of new production centres, the development of the domestic market, and the strengthening of Russia's position in the global market. Importantly, the sub-programme aims to raise production capacity to 440 million tonnes per year (Portal Gosprogramm RF, n.d.-b). There is no indication of any plans to reduce output, let alone move away from coal production and use altogether.

The coal industry's position on climate change

One of the central figures in Russian coal is Mel'nichenko, who is the majority shareholder of the SUEK and the Siberian Generating Company (SGK). Mel'nichenko is also one of Russia's wealthiest oligarchs and chair of the RSPP Commission on the Mining Complex.

SUEK is Russia's largest coal producer and one of the largest coal producers globally. In 2016 it was ranked as Russia's 25th largest private company. Mel'nichenko owns 91.2%, and the company's general director Vladimir Rashevskii owns 7.8% (Forbes.ru, 2016). The company's coal assets are located in Siberia and the Far East, with the biggest operations in Kemerovo (SUEK, n.d.-b).

SUEK has a company position on climate change, which notes that not only has Russia committed to reduce its GHG emissions to 70-75% of 1990 levels, but that 'indeed, Russia has already fulfilled its obligations' (SUEK, n.d.-a). SUEK's statement notes that 'we recognise that the production of coal and coal-fired generation are associated with GHG emissions, and we are deeply aware of our responsibilities to help preserve the Earth's environment for current and future generations. As a major coal producer, we also recognise our responsibility to continue providing the energy people need' (SUEK, n.d.-a). The company's agenda to address climate change includes a focus on research and investment in technology to improve production efficiency and decrease emissions, including methane in particular. The company reports its GHG emissions annually (SUEK, n.d.-a).

For his part, Mel'nichenko has spoken about the relationship between the coal industry and climate policy on a number of occasions, talking up the role of coal in the world's future energy supplies. In relation to the Paris Agreement, Mel'nichenko is quoted as saying in June 2017 that 'Russia has already done a great job in realising the goals set by the Paris Agreement', as a result of the large share of hydro and nuclear energy, together with the implementation of

[11] State Programmes are important strategic documents which outline a set of activities, objectives and details on implementation in a specific priority area for the government and individual ministries (see Portal Gosprogramm RF, n.d.-a).

energy efficiency measures (RIA Novosti, 2017). His views, as we might expect, largely correspond with both SUEK's corporate statement of climate change and the position advocated by the RSPP Commission on the Mining Complex.

Mel'nichenko's position provides an interesting contrast to that of Deripaska, discussed earlier. Mel'nichenko makes no reference to introducing a price on carbon, which would affect his coal assets considerably. He is not overly critical of global efforts to address climate change, but nor is Mel'nichenko pushing for Russia to do more as Deripaska has done. In fact, he argues that Russia is performing well. According to Mel'nichenko, Russia is one of the global leaders in reducing GHG emissions and an 'environmental donor', adding that, 'I think, we will not need to undertake global efforts in this direction' (RIA Novosti, 2017). The idea of Russia as an environmental donor is common, particularly in relation to climate change, which describes Russia's vast forest resources and the significant reduction in GHG emissions that occurred as a result of economic decline in the 1990s as Russia's contribution to solving the world's environmental problems. It forms part of what Tynkkynen has described as the 'mission frame' (2010, 189).

In an interview conducted in 2015, Mel'nichenko said he was not concerned about a potential shift away from coal for environmental or other reasons because of growing energy consumption around the globe. While agreeing that 'it is pointless to deny the existence of the greenhouse effect', Mel'nichenko argued that, in his view, renewable energy sources such as biomass, wind and solar were 'not promising and they will not help us in the fight against climate change' (Newslab.ru, 2015). Supporting 'economically unpromising technologies through budget subsidies or regulatory restrictions on the use of traditional fuel sources, including nuclear energy' represents 'an unjustified diversion of resources from solving real problems' (Newslab.ru, 2015).

A meeting of the Commission for Strategic Development of the Fuel and Energy Sector and Environmental Security held in August 2013, provides a further insight into the priorities of Russia's coal companies. The meeting was held in Kemerovo, a city in the Kuzbass region, and focused specifically on the coal industry. Both government and key industry representatives were in attendance. The meeting was hosted by Russian President Putin, who began by commenting on the failure of the domestic coal market to develop. He then proceeded to outline the various options available to encourage development, such as the construction of new coal-fired power plants in the Far East and Kaliningrad. Putin's focus was on stimulating the domestic consumption of coal, and increasing exports despite falling prices (Prezident Rossii, 2013). Putin mentioned the need for additional incentives to help the coal industry with the cost of modernising production, creating new production and processing facilities, and lowering transport costs (railway tariffs in particular), which are a key concern for the industry. When given the opportunity to speak, the coal industry representatives, as we might expect, requested greater state support.

The evidence from Mel'nichenko's comments and the Kemerovo meeting makes the priorities of coal companies clear. For Mel'nichenko, coal is a solid and reliable source of fuel for Russia. In Kemerovo, industry sought support from the government in the form of tax concessions and

policies to stimulate the industry. For the most part, these requests aligned with the government's position, and there seem to be no major disagreements between the two parties. Finding common policy ground with the government likely increased the chances of influencing the policy agenda, and perhaps the best measure of this can be seen through the introduction of the coal-specific programmes discussed above, introduced in the years following the Kemerovo meeting. From the available evidence, there is a strong sense that climate change and climate policy are not perceived as threats to the main interests of the coal industry.

Socio-economic framing of the debate

In addition to focusing on economic issues and requests for state support, the coal industry has been quite effective at framing its opposition to climate policies in socio-economic terms. A very good example of this can be seen in relation to the campaign 'Right 4 Coal' (*Pravo na Ugol')*, which has focused on the consequences of shifting away from coal for the inhabitants of Siberia, which is heavily dependent on the coal industry for employment and electricity generation.

The 'Right 4 Coal' campaign was started in response to proposals to introduce a carbon tax and create a 'carbon free zone' ('*bezuglerodnaya zona*') in eastern Siberia. This idea was raised in February 2016 by Yuri Trutnev, a Deputy Prime Minister of the Russian Federation and Presidential Plenipotentiary Envoy to the Far Eastern Federal District, and repeated by the Ministry for Natural Resources. According to reports, it was opposed by the Ministry for Energy and the RSPP (e.g. RIA Novosti, 2016; Davydova, 2016).

The 'Right 4 Coal' campaign was initiated by workers from SGK, which owns coal-fired power plants in Siberia. It has the appearance of a popular, grassroots campaign, but it was run by SGK employees, and may also have been financed by the company (SGK, 2016). Support for the coal industry and coal fired electricity generation is framed in terms of supporting miners and their families, who would lose their jobs if the 'carbon free zone' was implemented. For example, the website states 'we are those who care whether there will be heat in the homes of the inhabitants of Siberia and how much they will have to pay for the opportunity to use electricity and heat' (Pravo na ugol', n.d.). Further, in a music video titled 'the right to coal - the right to life' (*Pravo na ugol' – pravo na zhizn'*) created by students in Kemerovo and posted on the campaign's website, the phrase 'ugol' – khleb' is repeated: literally, 'coal is our bread' (Pravo na ugol', n.d.).

The campaign's website states that 'today energy and industry are under threat, under the guise of fighting for the environment, politicians and some oligarchs are proposing to impose a tax on CO_2 emissions, without much thought for the consequences this will entail' (Pravo na ugol', n.d.). We can only assume they are referring to Deripaska as one of the oligarchs, and a supporter of a tax on carbon as noted above. Environmental arguments against coal are rejected with statements such as: 'the relationship between CO_2 emissions and its impact on climate has not been proven by scientists' (Pravo na ugol', n.d.).

At the time, the campaign received a fair amount of attention within Russia, primarily from sympathetic local media outlets, such as 'Vesti Kuzbass' (Vesti Kuzbass, 2016a&b). The 'Right 4 Coal' campaign is no longer active since the 'carbon free' eastern Siberia proposal appears to have been dropped by its supporters within the government. However, the campaign and the opposition generated by the 'carbon free' eastern Siberia proposal highlight the considerable challenges associated with taking on the coal industry in Russia, and it is not a challenge that Putin or the Russian government appears to have any appetite for.

Collective action on climate?

For the most part, the metals and mining industry's approach to climate change has been characterised by companies acting independently of one another, rather than lobbying collectively as an industry at the domestic level, as has been seen in other cases of environmental policymaking in Russia (Martus, 2017b). An important potential source of collective action comes from the RSPP; a powerful lobby group representing the interests of Russia's largest companies. However, the picture is complicated by the fact that the RSPP's position on climate change has been far from consistent, and characterised by internal disagreements over the direction to take. The organisation had previously supported ratification of the 1997 Kyoto Protocol (Henry & Sundstrom, 2007, 54) and criticised the government's decision not to sign up for the Protocol's second commitment period (Andonova & Alexieva, 2012, 619). The president of the RSPP, Aleksandr Shokhin, has stated that the RSPP would support business participation in combating climate change (RIA Novosti, 2008). More recently however, the organisation has been more obstructive, arguing that the Paris Agreement creates significant risks for the Russian economy as it would accelerate the decline in industrial production (Davydova & Kryuchkova, 2016), and seeking to delay the introduction of legislation which obliges companies to report their GHG emissions (Davydova, 2017).

Some of the strongest opposition in relation to climate policy from within the RSPP has come from the RSPP Commission on the Mining Complex (chaired by Mel'nichenko, as noted above). At a meeting in April 2016 to debate the prospects and risks of introducing carbon regulation, for example, it was noted that implementing the Paris Agreement and regulating GHG emissions would have 'a very significant influence on the pace of socio-economic development in the Russian Federation', creating risks for the 'competitiveness of the majority of the basic industries of the Russian economy' (RSPP, 2016). It was noted that 'decisions taken within the framework of the Paris Conference … reflect not so much problems of an environmental character, as the politico-economic interests of the various parties' (RSPP, 2016). Furthermore, Russia's existing 'over-fulfilment' of its obligations under the Kyoto Protocol to reduce GHG emissions mean that additional financial burdens should not be placed on industry (RSPP, 2016).[12] Given Russia has not formally decided whether to ratify the Paris Agreement, and the legislation on GHG emissions has not yet been submitted to the Duma, it remains to be seen whether the RSPP Commission will get its way. However the extent of the

[12] The Kyoto Protocol committed Russia to not exceed its 1990s level of GHG emissions. As noted above, economic decline in the 1990s meant that this required little effort to achieve.

organisation's opposition to some of the policy options currently under discussion is fairly clear.

While collective lobbying on climate policy from the metals and mining industry at present is limited to the RSPP, the Climate Partnership of Russia (CPR) may provide a potential avenue in the future. The CPR was established just before the Paris Climate Conference (COP 21) in November 2015, and aims to 'consolidate the efforts of Russian business to mitigate environmental impacts and help prevent climate change' (CPR, n.d.).[13] It supports Russia's ratification of the Paris Agreement (CPR, 2017). It was also involved in lobbying efforts at COP 23 for example, and has participated in high-level meetings with the Ministry for Economic Development. Rusal, which was instrumental in setting up the partnership as noted above, and Alrosa, are the only metals and mining companies to join so far.[14]

Discussion and conclusions

The findings from this research point to divisions within the metals and mining sector, notably between coal and non-coal dedicated companies. Coal giant SUEK argued strongly for the interests of the coal sector, and against further Russian commitments to international climate efforts. Returning to Kim & Darnall's (2016) typology, SUEK displayed characteristics of a defensive firm: politically active in its opposition to the increased regulation climate policy commitments would bring. The RSPP Commission on the Mining Complex supported these efforts. We might expect that other coal companies would also display similar behaviour, or fall into the reactive category; unsupportive of efforts to curb GHG emissions, but politically inactive in policy debates. Further research is required.

Moving away from coal, the majority of companies surveyed demonstrated behaviour that was broadly anticipatory in nature: there was wide-ranging acceptance of climate change as an issue, but no strong will to be actively involved in policy debates. On a very basic level, the metals and mining sector has been most willing to implement energy efficiency measures, which as noted, has been a core focus of the government's approach to climate change mitigation efforts. In this way, industry and government efforts are aligned. It makes economic sense for industry to implement efficiency measures, and there have been government incentives to encourage this.

In addition to energy efficiency, there was little to suggest serious opposition from individual companies to the government's policy obliging companies to publish their GHG emission figures, with legislation due to be introduced to the Duma, and a number of companies including SUEK, Polyus Gold and Rusal already reporting on emissions. However, it is worth noting that the RSPP did raise objections, and has sought to delay legislation on the issue.

Finally, there are a number of companies that have been proactive on climate: they agree that climate change represents a significant concern and are working to try and influence the policy

[13] According to Anatolii Chubais, CEO of nanotechnology company Rosnano, Russian business support for the climate talks was originally to have been sent through the RSPP but an ambiguous reaction from the organisation prompted the launch of the CPR initiative instead (see Davydova, 2015).

[14] Other members include Rosnano, hydroelectricity company Rushydro, and several of Russia's largest banks including Sberbank, Alfa Bank and VTB

debate. As discussed, several companies have tried to lobby the government to introduce more far-reaching GHG mitigation regulations and encourage greater Russian participation in international climate policy, as demonstrated by Deripaska and Rusal. Several companies have also participated in international discussions with their sectoral colleagues, joining a range of different international partnerships such as the ICMM, the WSA Climate Action programme, or the UN Global Compact, though the success of such partnerships remains to be seen.

The reasons why we see these different responses from companies across the metals and mining industry are complex, but two explanations emerge. The first is reputational. In a different context, Downie (2017, 34) suggests that, in contrast to US based coal producers, Rio Tinto with its UK headquarters 'operated in a different institutional environment, one generally more supportive of action on climate change' . In Russia, a number of the companies most involved in efforts to reduce their emissions and support policy efforts operate overseas, have foreign minority shareholders or foreign stock exchange listings. Polyus Gold for example is headquartered in London, and Rusal has operations in a number of countries, including an aluminium smelter in Sweden, and alumina refineries in Ireland and Italy. Companies that operate in countries with more advanced climate policies are more likely to be concerned with their image and make attempts to generate positive 'environmental PR'.

Second, individual companies are likely to be disproportionately affected by international and national policy developments. Some companies, like state-owned diamond producer Alrosa, are not likely to be heavily impacted by climate change mitigation efforts at all. The larger, diversified companies such as Norilsk Nickel and Rusal are able to adapt to changing circumstances more easily, by moving into other metals and shifting out of mining and producing coal for example, and so we might expect them to support efforts to reduce emissions more readily. Dedicated coal companies like SUEK, however, are directly threatened by international attempts to reduce coal consumption or move away from it altogether. This is most likely why Deripaska, whose companies produce a range of metals, has called for a global carbon tax, and Mel'nichenko, whose wealth depends heavily on coal production, has not.

The final issue to consider is what relevance these different views within the metals and mining sector have for government policy. The literature beyond Russia might suggest we draw a more optimistic conclusion. Kim and Darnall (2016) for example argue that proactive businesses are potentially valuable collaborative partners for government; specifically during policy formation. Similarly, Downie's (2017) study of energy industries in the US, suggests that divisions within an industry can potentially be exploited by policymakers within the government. Along these lines it might be argued that if pro-climate policymakers could be found within the government (such as the Ministry for Natural Resources for example which supported the idea of a carbon free zone in Eastern Siberia), there is a potential opportunity to engage with companies and groups like the CPR in order to further their agenda.

However, the Russian coal industry represents a formidable obstacle to the formation of an active state policy on climate; and perhaps most importantly, government and industry interests are closely aligned on this issue. Far from thinking of transitioning to a low carbon future, the Russian government, and the Ministry of Energy in particular, is vigorously trying to expand the coal industry, as indicated in the State Programme for example. Politically, it would also be very difficult for Putin to close down coal mines in areas heavily dependent on the industry

like the Kuzbass. So, while the battle between the more pro-climate interests within the metals and mining sector, and those opposed to action such as the coal companies, will no doubt continue for many years to come, the odds are certainly stacked in favour of the latter.

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