

The power of policy regimes. Explaining shale gas policy divergence in Bulgaria and Poland

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Abstract

Shale gas policies vary significantly across Europe, notably in Russia-dependent Central Eastern Europe. Most strikingly, Bulgaria banned shale gas, whereas Poland remains firmly committed to fostering it despite its drawbacks. This article uses a policy regime approach to explain the shale gas puzzle. Drawing on a large set of interviews, the piece investigates regime strength as the causal factor that explains the adoption of specific shale gas laws (Poland) or a fracking ban (Bulgaria). It finds that the Polish shale gas policy regime was strong, based on a powerful political narrative and characterized by an institutional process ensuring the buy-in of actors from relevant policy levels and subsystems. In Bulgaria the policy regime was weak, failed to co-opt key stakeholders and was institutionally ill-designed. The findings show how different degrees of policy regime strength translate into diverging policy trajectories in two countries that otherwise operate in similar environments.

Keywords: *policy regimes; shale gas; Eastern Europe*

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1 Introduction

Shale gas has been coined a “game changer” for European energy security (Gény 2010). Fracking, a novel technology originating from the United States that combines deep-rock fracturing with horizontal drilling techniques, may allow the tapping of promising unconventional (shale) gas deposits across the European continent. Shale gas promises to make a difference on two fronts. One, it may enable Europe to diversify its sources of natural gas and lower dependence on Russian imports, a much discussed geopolitical concern (Bilgin 2009; Jaffe and O'Sullivan 2012; Smith 2010; Stulberg 2008). Second, it may foster gas-on-gas competition in the European market, thus lowering energy prices (European Commission 2011).

Interestingly, however, shale gas policies vary significantly across Europe. Most notably, there is a striking difference between two countries that otherwise have a lot in common: Poland and Bulgaria. Both countries feature a significant dependence on Russian gas imports, with Poland being dependent by roughly two-thirds of its consumption, and Bulgaria 100 percent (Eurostat 2014). Both countries also share a common socialist regulatory past, with many path dependencies stretching into the post-communist era. Furthermore, as EU members, both countries share an identical supranational regulatory environment in natural gas: the European Union’s environmental regulation and the natural gas directive stemming from the 2007 third energy package (European Commission 2007).ⁱ

Poland and Bulgaria both have a track record in the extractive industries, with mining – and particularly coal – representing one of the strongest sectors in their economies (Euracoal 2013). But like the rest of Europe, both countries face mounting challenges pertaining to inappropriate regulation, lacking service industry and fiscal regimes inapplicable to hydraulic fracturing (Stevens 2010). At the same time, the

geology of both countries is considered promising (EIA/ARI 2013; KPMG 2012). Poland's shale gas reserves – located in the Baltic Basin in the North, the Lublin Basin in the South and the Podlasie Basin in the East – may cover up to 250 years of the country's current gas consumption. Bulgaria's shale in the Carpathian-Balkanian basin might sustain the country for up to a century and help replace electricity with natural gas for heating in households (Ministry of Economics 2011). As a result, the US government has fostered the international transfer of fracking technology to both countries, in the form of the Unconventional Gas Technical Engagement Program.

Despite all the similarities, however, Bulgaria has banned shale gas (The Guardian 2012), whereas Poland has established the legal basis for shale gas exploration and its eventual extraction. Bulgaria's decision to stay away from shale gas was officially linked to the environmental risks of fracking, a strongly contested technology due to its potential impact on groundwater safety and the possibility of fugitive methane emissions and seismic activities (Cathles et al. 2012; Gordalla, Ewers, and Frimmel 2013; Howarth and Ingraffea 2011; Myers 2012). But ecological concerns alone cannot explain the stark policy divergence between Bulgaria and Poland. Energy is generally considered a vital national security issue in Central Eastern Europe (CEE), not least against the backdrop of several “gas disputes” affecting Russian natural gas supply to CEE countries over the past decade (Kovacevic 2009). Therefore, simply juxtaposing Bulgaria's preference for preserving the environment against Poland's quest for national security does not provide a sufficiently convincing explanation for the CEE shale gas puzzle.

This paper proposes that policy regimes offer a powerful explanatory approach. It argues that a strong regime allowed the Polish government to implement pro-shale gas policies, whereas a weak regime in Bulgaria made shale gas policies falter in the face of social opposition. To explore the role of regimes in bringing about diverging energy policy outcomes, the paper traces the sequence of events leading to the ban on shale gas in Bulgaria and the adoption of the legal basis for the unconventional gas sector in Poland.

The next section reviews existing works on unconventional gas in Europe and explains to what extent a policy regime approach makes a difference when studying national energy policy choices. The third and fourth sections are devoted to case studies of Poland and Bulgaria. The fifth section discusses the findings. The final section sketches further avenues of research.

2 A policy regime approach to national energy policies

Shale gas has been attracting growing attention among policy scholars, and this journal is no exception (Boersma and Johnson 2012; Davis 2012; Davis and Fisk 2014; Fisk 2013; Rabe and Borick 2013; Rabe and Hampton 2015; Rinfret, Cook, and Pautz 2014). This is particularly the case in the United States, the so-called “motherland” of fracking, which has been the focal point of scholarly inquiry. Thus far, the rapidly expanding literature has paid most of its attention to public attitudes and state level politics (Boudet et al. 2014; Brasier et al. 2011; Brown et al. 2013; Lachapelle, Montpetit, and Gauvin 2014; Rabe 2014; Rabe and Borick 2013) as well as the broader geopolitical implications of the US shale revolution (Blackwill and O'Sullivan 2014; Dunn and McClelland 2013; Haug 2012; Malik 2015). The literature on Europe, by contrast, is far less developed. Because of the politicised nature of EU energy dependence, geo-strategic treatises dominate in scholarly inquiry (Jong, Auping, and Govers 2014; Riley 2013). Much attention is also paid to the potential prospects of European shale gas extraction in light of domestic economics and politics (Boersma and Johnson 2012; Cotton, Rattle, and Van Alstine 2014; Goldthau 2013; Inmam 2016; Musialski et al. 2013; Stevens 2010). Poland features most prominently among East European countries, particularly with regard to analyses of the technical, legal or policy dimensions of shale (Baginski 2011; Baranzelli et al. 2015; Gorski 2012; Kemp, Johnson, and Boersma 2012; Uliasz-Misiak, Przybycin, and Winid 2013). By contrast, Bulgaria remains entirely underexplored, except for one policy study written by the authors of this paper (LaBelle and Goldthau 2014).

This suggests a triple gap in the literature. First, Europe – and particularly Eastern Europe – warrant more scholarly attention and contextualized empirical investigation. Second, there is a clear need for comparative analysis of East European shale gas policy, particularly against the backdrop of a similar external policy environment and a shared communist past. Third, the case of Eastern Europe promises to improve our understanding of how shale gas policy – and national energy policy choices, more generally – come about in a volatile socio-political environment that is coupled with the high politicisation of the energy sector.

This article seeks to fill this gap and offer an empirically rich explanation to the CEE shale gas conundrum by investigating divergent national policies through the prism of policy regimes. The regime concept has been widely used in social science inquiry, such as international studies (Drezner 2007; Krasner 1983), regulation and public administration (Eisner 1994; Harris and Milkis 1996; Hood, Rothstein, and Baldwin 2001), the Europeanization literature (Knill and Lehmkuhl 2002; Levi-Faur 1999) or urban politics (Davies 2002; Jessop 1997). Even within the public policy literature, the concept of policy regimes – much as regimes, more generally – was applied to very different research objects. Howlett (2009) refers to policy regimes as “logics” linking policy objectives and policy mechanisms; for Eisner (1994), they delineate eras in US regulatory history; and Orren and Skowronek (1998) use the term for analysing changing constitutional relationships. In environmental policy, they denote paradigms underpinning policymaking (Jahn 1998) or distinguish traditional regulation from novel governance arrangements (Howlett and Rayner 2006), whereas they refer to various types of welfare regimes in social policy (Esping-Anderson 1990).

For all their differences, the literature tends to give credit to the general notion that policy regimes determine the way social, state and market players interact in the policy process (Eisner 2000). Policy regimes consist of a "set of ideas, interests, and institutions that structures governmental activity in a particular issue area" (McGuinn 2006), 206). Interests can be conceptualized as societal, economic or

political stakeholders who stand to win or lose from a given policy. Therefore, interests form the basis of support for policies or constitute a source of resistance against them. In turn, the institutional setup or, in Wilson's (2000) terms, the "power arrangement," determines the degree to which authority is lent to a policy, and "structures authority, attention, information flows, and relationships" (Jochim and May 2010), 313). Finally, ideas constitute the "glue" of a policy regime (May and Jochim 2013), 435). Ideas justify governmental action (Harris and Milkis 1996), "spin" the problem as policy frames (Bleich 2002), and in that sense, serve as "tools of coalition building" in the policy process (Eisner 1994), 158).

A policy regime perspective lends itself to being used for investigating the East European shale gas conundrum. As a policy issue, shale gas spans established areas of policymaking and encompasses numerous policy subsystems (Freeman and Stevens 1987; Stein and Bickers 1995; Zafonte and Sabatier 1998). Therefore, shale gas also comprises actors on multiple levels of governance. Various bodies, from the national to the local level, are involved in issuing drilling licenses, vetting environmental impact assessments or putting in place regulatory frameworks. These include national-level ministries (such as the ministry of energy or environment), regulatory agencies (e.g., gas sector regulators), state-level or regional administrations (often in charge of environmental oversight), local municipalities (e.g., responsible for infrastructure), energy companies (state-owned or private, active in upstream or distribution or both) as well as civil society groups (such as environmental activists). As a corollary, the governance of the shale gas sector also comprises a whole range of actors, from public to private. This is where policy regimes may help establish coherence. As May et al. (2011), 290) suggest, policy regimes that are deliberately designed to bridge policy boundaries, actor groups and governance levels may produce cohesive dynamics in a rather disjointed and fragmented setting.

With this, the added value of the policy regime approach is fourfold. First, it allows both material and ideational factors in bringing about policy to be grasped. This proves particularly valuable for the case of shale gas, where existing studies focus either exclusively on perceptions and public attitudes, or economic

or political fundamentals, often even without establishing causality between material or ideational factors and policies as observed. Second, it unpacks complex state-level dynamics by paying attention to the role played by state- and non-state actors in the policy process. Sectors featuring contested technologies such as fracking tend to be characterized by deeper societal cleavages and a stronger involvement of social groups, compared to other sectors. Their role needs to be clarified in order to understand how they were causal in explaining the observed policy outcome. Third, the policy regime framework allows conceptualizing the proverbial “above ground factors” of shale gas in a single framework. Most studies examining the legal, institutional and economic aspects of shale fail to offer an integrated assessment and remain lopsided in focus. The policy regime framework, by contrast, investigates the specific interplay of these aspects and puts them in relation to material interest, characterizing the broader policy context. Finally, shale gas promises to be an insightful case for advancing the literature on policy regimes. As the short literature review reveals, policy regimes remain a blurred concept and the literature stands to benefit from both analytical refinement and rich empirical analysis.

3 Operationalizing policy regime strength

Whilst the concept of policy regimes showcases the trifecta of interests, ideas and institutions as key elements for understanding policy outcomes, there is little consensus in the literature on how to best operationalize these elements. (This is obviously a function of the wide spectrum of works on policy regimes, as outlined in our review above.) Therefore, in what follows, we draw on May et al.'s (2011) notion of regime strength to put the concept to work for an investigation of East European shale. May et al.'s key assumption is that the strength of a policy regime is decisive to the failure or success of a government's shale gas policy. Strong regimes help overcome fragmentation among actors, interests and policy levels, and in that way, establish cohesion in the policy process. Weak regimes fail to do so, leaving stakeholders fragmented across governance levels and policies doomed to fail.

According to May et al. (2011), regime strength is defined as "the ability [...] to focus attention of players within diverse subsystems on a shared vision [...] in addressing a given boundary-spanning problem" (290). For this, the political narrative – or idea – needs to give a clear meaning to a specific policy so that it resonates with key interests and stakeholders. In other words, this idea has to be of what Cox and Béland (2012) call "high valence," so that it generates support among the multiple socio-economic constituents that matter in order for a policy to succeed. In terms of institutions, a strong policy regime features arrangements that "channel [...] attention, information, and organizational relationships in support of policy goals [...] among relevant implementing authorities" (May and Jochim 2013), 436). At its very core, this is what the public policy literature has come to discuss as "joined-up government" (Pollitt 2003). Finally, interests need to be comprehensively represented in a strong policy regime. Put differently, the policy regime needs to encompass the very stakeholders that could otherwise mobilize against a policy, and needs to "give them a say."

In all, a strong policy regime ensures that relevant actors rally around a common purpose, that key stakeholders endorse a joint policy narrative and that appropriate institutional frameworks facilitate the buy-in and coordination of economic, political and societal actors on all relevant policy levels. Applied to the case of shale gas, a strong policy regime should lend legitimacy to policies pertaining to the licensing, exploration and production of unconventional gas. A weak policy regime, by contrast, draws the "wrong" regime boundaries and thus fails to include key stakeholders, lacks a convincing policy narrative and does not manage to provide mechanisms for "collaborative governance" (May and Jochim 2013), 435).

We use regime strength as the key variable to explain divergent policy outcomes in both countries. In order to test for policy regime strength, the article uses a dataset of 54 semi-structured *sur place* interviews generated between 2012 and 2014. There were 27 interviews for each country. Interviews cover the national, regional and local levels, and represent a cross-section of private and public

companies, state ministries, the parliament, regional and local municipal executives and elected municipal mayors, leading figures in local NGOs/protest movements and independent observers from academia.

When conducting interviews, the authors were faced with clear limitations, due to the sensitivity of the subject. In Bulgaria, representatives of state-owned companies had to be left out of the sample, as they were not ready to speak about the topic. This shortcoming was remedied by drawing on the secondary literature on the role of state companies in the Bulgarian energy sector, and by exploring their role in further detail when speaking with government advisors. For reasons related to the political sensitivity of shale gas, several interviews had to be held anonymously in both countries. Throughout the article, interview partners are thus identified by their function and institutional background, not by their name.

Before embarking on field research, the authors conducted desktop research on each country's energy sector governance and set-up, and assessed available governmental documents, the pertinent media coverage and existing academic analyses on national shale gas policies. Interview questions were then specifically designed to explore the nature and function of policy regimes in national shale gas policy contexts. Next, the qualitative data were clustered around indicators representing institutional strength, stakeholder involvement and the valence of policy narratives. More to the point, "valence" was operationalized as the degree of "ideational uptake" (May, Jochim, and Sapotichne 2011), 292) among key stakeholders. In our empirical investigation, we measure "ideational uptake" by the extent to which relevant societal and economic actors use similar terms when framing their support or rejection of shale gas and fracking technology. Meanwhile, institutional strength was measured by the degree to which state authorities at relevant policy levels were involved in the licensing process of shale gas exploration; the degree to which they coordinate in designing and implementing processes pertaining to shale gas exploration; and the degree to which the institutional setup allows for adjustments in procedures and organization, should the policy goal be missed. Finally, interest involvement was operationalized in two ways: by identifying key actors for each country and governance level, and by assessing their involvement

in the policy process pertaining to shale gas regulation. Statements as quoted below indicate representative patterns for each of the three indicators, as found during the interviews.

Next, we turn to the findings on shale gas policies in Poland and Bulgaria.

4 Poland's shale gas policy

In 2007, Poland issued the first shale gas exploratory license. But it produces no significant volumes of shale gas to date. After great enthusiasm in the early stages, most international energy majors left the country again. Therefore, all hopes now rest on smaller companies and Poland's national energy corporations to extract Europe's "first commercial shale gas" (Bloomberg 2014). Still, Poland features a firmly established pro-shale policy and has adopted a shale gas law in 2014. Before delving into the case, we will briefly outline relevant actors, governance levels and regulatory bodies pertaining to Polish shale gas.

4.1 Energy sector governance, actors and institutions

The governance of Polish shale has multiple layers, with national, regional and local authorities all in possession of regulatory authority. On the national level, the Polish state is represented by the Ministries of Economy, Environment, Finance, Foreign Affairs and the Treasury. The Treasury oversees state-owned oil and gas companies, while the Ministry of Foreign Affairs coordinates international policy aspects of Polish shale, notably in the shape of bilateral expert visits by Polish and US delegations. The Ministry of the Economy is in charge of defining Poland's overall energy policy and strategy, while the Ministry of Environment holds an important role in environmental oversight, but it shares competences with regional administrative levels. This strong regulatory power for sub-state authorities reflects the strong cultural, political and economic identities of Polish regions (*województwo* or voivodeships). As a corollary, environmental procedures rest on the regional authorities, which give initial and final approval for extraction activities. Three bodies are in charge of environmental oversight. The first, the Regional

Directorate for Environmental Protection (RDOS), has 16 offices in each of the voivodeships and oversees Environmental Impact Assessments (EIA). The second, the General Directorate for Environmental Protection (GDOS), reviews RDOS activities and appeals, thus providing national oversight on potential “mining” activities, which includes fossil fuel extraction). Third, a separate state agency, the General Inspectorate for Environmental Protection (GIOS), ensures monitoring afterwards. In addition, the local authorities at county and municipality level are consulted, and they share in the mining royalty interests. The elected public bodies in voivodeships make the final decision on licensing after consulting with RDOS.

In addition to state legislative or executive bodies, actors involved in Poland’s shale gas include state-owned corporations, private companies, and regional and local environmental groups. The largest state-owned energy companies active in Polish shale are LOTOS Group, PKN Orlean and PGNiG. Large foreign companies included ExxonMobil, Chevron, Talisman, Cuadrilla and Lane Energy. Since ExxonMobil, Chevron, Talisman and Marathon have left for reasons related to internal company decisions, disappointing testing results and regulatory uncertainty, the companies that remain present in Poland are smaller ones such as San Leon Energy. Environmental groups such as Ecological Club and the Polish Climate Coalition are organized on the national level, but they tend to have a strongly localized character. Other relevant stakeholders include groups representing industry and business interests, notably on the national level.

As this brief overview demonstrates, a strong Polish shale gas regime would need to encompass various levels of policymaking as well as a diverse set of institutions and actors. This is what we turn to next.

4.2 Investigating Poland’s shale gas policy regime

From the outset, the Polish government has framed shale gas as a matter of national security and economic development. This is epitomized by then prime minister Donald Tusk's claim that "gas security is a fundamental prerequisite of sovereignty" (Wall Street Journal 2014), which comes against the

backdrop of Poland's historical trauma of being partitioned several times, notably by Soviet Russia and Nazi Germany. According to Tusk, it is "hard coal and lignite – and soon shale gas – [...] where the future of the [Polish] energy sector lies" (Agence France Press 2013). With this, the Polish government put shale gas policy in the context of Russia's increasingly assertive foreign policy and the realm of geopolitics. But concerns over gas imports also extend to economics. Russian gas is not only perceived as a source of political insecurity, but also as comparably expensive. Therefore, it is also cheap energy and economic benefits that the government put front and centre in its communication strategy on shale gas. In this vein, former Polish foreign minister Radoslaw Sikorski even alleged that shale gas could make the country "a second Norway" (Kenarov 2012). This statement applies to both overall production levels in natural gas and cheap energy as a boon for domestic industry.

This twofold policy narrative resonated well among energy industry officials. Shale gas was frequently cited as a means of reducing geopolitical insecurity, but also as a key driver of domestic growth. As exemplified by the statement of a country manager of an oil and gas services firm, Russian gas represents a "foreign policy tool" of the Kremlin and amounts to a threat even for industry. At the same time, leading executives stress the innovative potential and expected foreign direct investment from shale (communication with, among others, the chief economist of a state-owned Polish energy company). Indeed, industry estimates back up ambitious expectations on the growth potential of the industry. For instance, a PKN Orlen study put the investment volume for new shale gas wells at \$11.1 billion between 2012 and 2025 (Czyzewski, Bodnari, and Kozieja 2012), and suggested significant domestic knock-on effects. Industries that are particularly energy-intensive were perceived as beneficiaries. Here, domestic shale gas is perceived as a potential price hedge against EU decarbonization policies, which threaten to punish Poland's 88 percent share of coal in electricity generation (Polish Information and Foreign Investment Agency 2013). Shale is regarded as an alternative, since natural gas comes with a lower CO₂ footprint than coal, though this remains scientifically contested (communication with Polish Treasury

Official). As a director at PKPP Lewiatan, the Polish Employers Association, summarized, shale gas "would be a good source of energy, it would support renewables, can be an important driver for the Polish economy and produce cheaper gas for chemical industries."

Interviews revealed that economic benefits are also expected to trickle down to local levels. On the one hand, 60 percent of royalties generated from shale gas extraction will go to local communities, according to the amended national law (communication with Polish Treasury Official). Moreover, local businesses, usually in economically weak areas, stand to profit from the economic activities from energy companies and their workers (communication with Polish Foreign Ministry Official). Interestingly, the economic narrative to a certain degree even resonates among environmental groups. To be sure, local protest movements remain critical and vocal in Poland. A case in point is an anti-fracking group in the southeastern Polish town of Zurawlow, which forced Chevron to stop exploration activities there (The Guardian 2015). But as a representative of a Polish NGO umbrella organization stated, "Our opinion is not absolutely negative towards shale gas – with appropriate regulations shale gas could be better than coal." This applies particularly to the *local* use of shale gas. As argued by another representative of the environmental movement, "in reality it would be more affordable [...] and environmentally safer" (communication with Representative of Polish Environmental Organization). In that respect, shale gas could meet local needs for heating and support the local energy mix, including renewable energy sources (communication with Green Political Party Leader).

When it comes to institutional design, Poland failed to adopt a "joined-up approach" to shale gas policy. Instead, it chose to build on the existing apparatus governing the extractive industries. This came with institutional legacy as the approval and monitoring processes had been laid down at a time when the energy sector only featured state-owned companies and focused on conventional gas extraction. Consequently, the institutional framework did not cater to the needs of private foreign investors and their expectations in a fast and efficient licensing process (communication with Country Manager of a Poland

based Oil and Gas Services Firm). In fact, as Poland's Supreme Audit Office (2014) concluded in an evaluation of regulatory procedures, all the essential factors to a joined-up approach in shale gas were lacking: legal procedures pertaining to fracking fell prey to inter-ministerial intricacies; the government failed to appoint a person responsible for unconventional hydrocarbons extraction; the ministry in charge (Environment) did not prioritize shale gas; the licensing process suffered from severe capacity bottlenecks in personnel; and investors did not get equal treatment. Overall, the conclusion was that a poor institutional setup had slowed the exploration process in the country "at least for several years" (Supreme Audit Office of Poland 2014).

This report's main findings were echoed by industry representatives, who pointed to the restrictive character of regulation (communication with Chief Economist of state owned Polish Energy Company), but also more generally to problems of institutional capacity and regulatory coherence. According to a representative of Polish Environmental Organizations, this "has to be solved by improving the quality of administration." Indeed, the lack of uniformity, administrative quality and legislative coherence left stakeholders in limbo, including "investors and social organizations, including commercial organizations" (communication with Regional President of Ecological Club). Therefore, company representatives consistently stressed the need for institutional reform and reducing red tape, rather than removing environmental regulations per se (communications with Oil and Gas Company Official and Country Manager of Polish oil and gas services firm).

Regarding institutional design, the Polish government also struggled to cope with the consequences of operating shale gas through the incumbent regulatory system. A case in point is the 2013 attempt to clarify the status of shale gas investments in the compulsory Environmental Impact Assessment (EIA) procedure for conventional gas (communication with Energy and Natural Resources Lawyer, White & Case Poland). The revision, which streamlined regulatory requirements for shale gas drillings above 5,000 meters of depth, brought Poland in conflict with the European Commission, which started a (pending)

infringement procedure pertaining to the Environmental Impact Assessment Directive (Neslen 2014). Overall, the “legacy” of the chosen regulatory system prevented an institutional alignment on relevant policy levels.

Turning to interests, the Polish policy process proved comprehensive and inclusive when it came to key stakeholders. For one, the Polish government ensured national energy companies had a role to play in the unfolding shale game, thus facilitating the buy-in of an important group of incumbents. This includes not only state oil and gas companies, but also PGE Polska Grupa Energetyczna, Enea and Tauron Polska Energia in the utility sector and KGHM Polska Miedz in the mining industry, which were all encouraged to team up with international oil and gas majors (Wall Street Journal 2012). But as the chief economist of a state owned Polish energy company stressed, “It is not the case that the government pushes us into this.” Rather, he alleged, it is the perceived benefits and gains in expertise that inform the companies' actions. Moreover, though slowly, the Polish government proved responsive to requests by public and private companies to overhaul the regulatory environment for shale. In 2012 and 2013, it implemented a set of regulatory measures tailored to the shale gas sector, also with a view to establishing a reliable fiscal regime. Whilst first drafts of the proposed bill drew heavy criticism for increasing, not reducing, the regulatory burden, the latest version was welcome among stakeholders (Bloomberg 2014).

In addition, local authorities play an important role in the process of permit approval for shale gas exploration. Companies work with regional RDOS, GDOS and local authorities in a continuous back-and-forth process that gives both the local municipality and the regional environmental directorate a say before decisions are taken (communications with Advisory to Polish Ministry of Environment, Deputy Director, Regional Directorate for Environmental Protection, and Representative for Polish Environmental Organizations). Since, according to the existing law, local public outreach remains limited to posting public notices of drilling applications, what ensures adequate levels of public information and involvement are informal procedures. For instance, companies are expected to hold public fora, both as a means to

demonstrate interest in local concerns and as a chance to “clarify the situation, so it encourages people to participate” (communication with Deputy Director, Regional Directorate for Environmental Protection). Because stakeholder dialogue is viewed as key, the Treasury (as the owner of state oil and gas companies) remained “invested in how companies engage with local people” throughout the licensing and exploration process (communication with Polish Treasury Official).

In this context, access to information was identified as key. As summed up by an advisor to the Minister of the Environment, “the most important factor is to provide information to people so they can take decisions based on information from coming at least from two sources if not three.” In a move to facilitate access to information, the Polish Geological Institute, a subordinate of the Ministry of Environment, was included in environmental studies. This was done also to lend scientific credibility to shale gas exploration conducted by private entities (see, for instance, Polish Geological Institute–National Research Institute (2011). Overall, informal procedures complement (insufficient) institutional arrangements and ensure stakeholder engagement particularly on local levels.

5 Bulgaria's shale gas policy

The Polish case contrasts starkly with Bulgaria, where the parliament imposed a ban on shale gas exploration and the hydraulic fracturing technique in January 2012, against the backdrop of public protests in 15 Bulgarian cities. The move toward the ban was considered a move to “limit [the prime minister’s] exposure to potential risks” (communication with former Bulgarian ambassador to Russia). Before investigating in more detail the elements of policy narrative, actor involvement and institutional design, we first briefly outline Bulgaria's shale sector characteristics.

5.1 Energy sector governance, actors and institutions

State authorities relevant for shale gas include the Bulgarian Ministry of Economics, Energy and Transport (MEET; issuing, among other, exploration permits), the Ministry of Environment and Water (MEW; overseeing, among other, compulsory environmental impact assessments before exploration), and the State Energy and Water Regulatory Commission (SEWRC). Regulatory power in shale gas (and extraction activities in oil and gas) is highly centralized in Bulgaria, with MEET controlling the permission and tender processes. Regional and local authorities possess almost no formal regulatory authority. This reflects the traditionally rather weak role of Bulgarian regions in policymaking. Subnational executive bodies such as the Regional Inspectorates for Environment and Water (RIEW) exert some control over the actual implementation of an energy investment proposal, but they are subordinate to MEW. Municipalities profit from some income from hydrocarbon extraction, namely an annual fee based on the size of the exploration area and royalties based on quantities of produced gas (KPMG 2012), 74–75). But these are low by international standards. Municipalities are not involved in project negotiations, contracts and control over the oil and gas extraction activities.

In terms of sector organization, Bulgaria's gas industry is characterized by monopoly structures. Through its network of subsidiaries, a single state-owned company, Bulgaria Energy Holding (BEH), controls natural gas distribution (Bulgargaz), transmission and storage (Bugartransgaz) as well as electricity generation and distribution (NEK). Thus far, domestic gas production has been insignificant in Bulgaria, with the offshore Galata gas field being the first to produce natural gas from domestic sources. Foreign companies are not present in Bulgarian upstream, with UK-based Melrose Resources plc being the only exception. Chevron acquired concessions for shale gas exploration, but has not produced gas. Following the 2012 ban of shale gas extraction, the company left the country (Standard News 2014).

In all, Bulgaria's energy sector features important stakeholders on the national level, including MEET, MEW and the national energy holding, while regional or municipal actors are not given significant

regulatory power. That said, municipalities may exert indirect influence by granting local-level support (or not).

5.2 Investigating Bulgaria's shale gas policy regime

In Bulgaria, shale gas was championed by the conservative government of Boyko Borisov in 2009, with strong reference to energy security. During interviews, frequent references were made to the gas dispute between Ukraine and Russia in January 2009: Russia cut Bulgaria off gas supplies, bringing the latter's economic and social life to a standstill. In essence, as a former member of Parliament argued, "shale gas is not only an industry, it's geopolitics" (communication with Former Member of Parliament and Chairman of the Energy Independence Movement). According to observers, energy independence was thus among the key drivers of Bulgaria publicly tendering shale gas concessions (communication with Chairman of Parliamentary Committee on Economic Policy, Energy and Tourism). Shale gas has also been portrayed as a source of cheap energy by the government. This is against the backdrop of Bulgaria being the poorest country in the EU and is underlined by the fact that the country's 2011 National Security Strategy listed energy poverty among its key security concerns (Ministry of Economy and Energy 2011). As former Bulgarian Energy Minister Traicho Traikov summed it up, shale gas is essentially about "security, independence and lower consumer prices" (Natural Gas Europe 2011).

And yet, the government's narrative did not resonate with broader constituents. To be sure, industry representatives appreciated the challenges facing Bulgaria's energy sector, to the effect that "there are two gas topics for Bulgaria. One is security of supply, the other is pricing" (communication with chairman of the Bulgarian Federation of the Industrial Energy Consumers (BFIEC)). But most industry stakeholders did not seem to be prepared to support shale gas exploration in the country – nor did special interest associations. As explained by the former Deputy Minister of Energy, "Big industries such as metalworking, pharmaceuticals, chemical industry, and fertilizer plants said nothing on this topic. Professional circles including geologists were extremely passive, too." Interestingly, Chevron, the industry player with

arguably the biggest stake in Bulgaria's shale gas, remained silent as well and did not make great efforts to support the government's pro-extractive policy (communication with Former advisor to Minister of Energy).

Moreover, interviews revealed that shale gas was not considered a source of material benefits. Instead, popular perception was that only a handful of actors – Chevron and its service companies – would eventually benefit from producing shale gas. As the mayor of Toshevo put it, the 10-year shale gas concession was perceived as generating only a symbolic rent for the municipal lands. This statement was confirmed by various other sources. Anti-fracking leaders asserted there would be no jobs for the local population beyond "guards, drivers and cleaning ladies." The high-skilled and well-paid jobs, by contrast, would go to foreigners (communications with leader of anti-shale gas movement and co-chairman of The Greens, and business woman and protest leader in the town of Dobrich, an anti-shale stronghold).

Interestingly, shale as a potential "price hedge" against EU carbon policies also did not feature in the interviews. EU requirements to shut down aging Bulgarian nuclear reactors currently providing for 33 percent of the country's electricity either necessitate building new reactors – an expensive endeavor, but one that the majority of the populations seems to support (Euractiv 2013) – or risk punishing carbon prices, if the country opts for increasing the share of coal/solid fuels in the mix (currently standing at roughly 50 percent) (European Commission 2012).

In all, the "ideational uptake" of the government's narrative on security or economic benefits remained low among important stakeholders within Bulgarian society and the economy. Instead, it was the risks of fracking that soon emerged as the focal point of public debates. The latter started to particularly center on food production and agricultural heritage (Castle 2012). Key concerns arose around the potential damage that fracking could cause for the Malm Valanginian artesian aquifer at the Bulgarian-Romanian border (communication with anti-shale leader and co-chairman of the party The Greens). Relating shale

technology risks to a major source of the country's water supply allowed opponents to frame their matter in such a way that it spoke to the local population and to mobilize against shale on broader fronts.

In terms of institutions, the government failed to embed its shale gas policy in a comprehensive approach. Instead, the policy process remained highly centralized. It was then Minister of Economy and Energy Traicho Traikov who singlehandedly granted the shale gas exploration permit to Chevron, a move that surprised even his close advisors (communication with former advisor to Minister of Economy and Energy). All decision-making power and oversight pertaining to shale gas remained concentrated with the energy ministry. The government also abstained from adapting legislation to fit shale gas (KPMG 2012). Instead, the shale gas technology remained subject to existing fiscal and environmental regulations which were considered ill-suited to deal with the new technology (communication with member of Bulgarian Academy of Sciences). As an anti-fracking activist (also representing a Bulgarian municipality) summarized, the fracking technology was "mechanically transferred" into the Bulgarian context, which was unprepared in terms of institutional design and administrative capacity.

Furthermore, interviews revealed a lack of coordination among relevant governmental units. In fact, the state bureaucracy essentially "resorted mostly to control functions" (communication with member of the Board of Directors and head of exploration unit of Oil and Gas Exploration and Production plc). Authorities also abstained from involving experts from academia, which would include the Bulgarian Academy of Sciences, Sofia University, or the University of Mining and Geology, as well as specialists from other relevant ministries (communication with representative of the Institute of Geology at the Bulgarian Academy of Sciences). As a geologist (and anti-shale activist) indicated, state authorities were not deemed knowledgeable enough to deal with the subject. This assessment was echoed by various other observers, who hinted that ministries lacked sufficient expertise as well as qualified and skilled personnel (communications with representative of a private energy firm and the Board of Directors of Oil and Gas Exploration and Production plc). In all, the Bulgarian government failed to foster a "joined-up

government” approach to shale gas across administrative units and levels, which also aggravated shortcomings in state capacity and expertise.

Turning to actors, the government's centralized and “silo type” approach toward shale gas policy left little room for “buy-in” of potential veto players. Interviews revealed a general agreement amongst stakeholders that there was no significant outreach by the government. As the chairman of industrial energy consumer association BFIEC summed up, "We weren't invited and we didn't demonstrate any interest." National level energy companies, notably BEH and Bulgargaz, were reportedly not involved in the decision-making process either – a remarkable move by the government, given the potentially strong impact shale gas could have on these incumbents' domestic gas market share. There also was no involvement of the local population. As the director of Regional Inspectorate for Environment and Water (RIEW) Varna (under the authority of MEW) framed it, shale gas extraction is "a political decision to proceed with it or not and not so much a question of environmental policy" or of local concerns.

This approach falls in line with broad claims that concessions were granted without prior information or public discussion (communication with representative of Bulgarian anti-shale gas movement). A municipal mayor revealed in an interview that he "got a letter from the ministry when the company was granted a permit for exploration that we need to assist the company first to move their heavy vehicles for the seismic studies and then to provide it with land for the drills." At the same time, detailed contractual conditions remained unknown to the local municipality because contracts had been concluded on the national level. This fostered the perception that the government was striking an agreement with Chevron without assessing the risks for the population (communication, among other, with Chairman of Parliamentary Committee on Economic Policy, Energy and Tourism). Overall, as one Bulgarian MP put it, communication between the ruling political elite and society was “broken.” Therefore, the initial support that shale gas prospects enjoyed among the general population – a 2012 poll showed 75 percent support rates (The Sofia Echo 2012) – quickly withered away.

Stakeholder outreach also remained limited when it came to information sharing. Though the government frequently pointed to the positive fiscal effects of shale gas, it failed to carry out economic impact studies to back up these claims with hard numbers. The population was also not comprehensively informed about the risks and opportunities of shale gas. As a result, the local population was "hardly aware of basic facts" on shale gas when Chevron was granted the exploration concessions (communication with representative of Bulgarian Academy of Sciences). In addition, industry observers rejected existing scientific studies as either polarized or ill-informed (communication with member of Board of Directors of Oil and Gas Exploration and Production plc). A local mayor indicated that leading scientific geological institutes were perceived as unable to produce univocal results on shale gas risks (communication with mayor of Toshevo). During interviews, a frequently cited source of information and initial motivation for opposing shale gas drilling was *Gasland*, an American documentary that examined the possible environmental risks of shale gas extraction. As the former chair of the Bulgarian parliament's Shale Gas Committee put it, "NGOs were concerned [that companies] will put almost all [chemical elements from] the periodic table, including radioactive ones, in the [fracking] fluid." In short, information flow toward and among key stakeholders in the process was not ensured.

It is important to note in this context the Bulgarian ban of shale gas was linked to Russian involvement. Among other, then-NATO general secretary Rasmussen indicated that Gazprom had channelled money to local protest groups in order to spark resistance against shale exploration (FT 2014b). The obvious rationale behind such a move would be to prevent domestic competition from emerging and to keep market share – and in fact a gas supply monopoly – in Bulgaria. This theory has also been revived also by members of the Bulgarian political establishment (FT 2014a). It cannot be ruled out that protest groups received foreign organizational or financial assistance. However, our empirical results do not support this allegation. To the contrary, members of the anti-fracking camp repeatedly pointed to the exclusively local composition of protest groups and their deep distrust toward outsiders, including national level

politicians, foreign companies such as Chevron, or other. Moreover, our data provide little evidence for a concerted and Russia-led information campaign across the country, as has been alleged by NATO sources. The main source of information for local groups, as revealed by our interviews, has been the internet and US-documentaries.

6 Comparing policy regime strength in Poland and Bulgaria

As the empirical discussion suggests, shale gas policy regimes differed considerably in Poland and Bulgaria. In Poland, the government's discourse surrounding economic development, job creation and energy independence from Russia established a case for shale gas among energy companies, businesses, civil society and the general public. This allowed proponents to build a robust case for fracking and made it very difficult for opponents – including environmental groups – to stand up against a technology serving central national interests and security, not the least in the context of the perceived Russian threat. In Bulgaria, by contrast, the key themes as put forward by the government in support of shale gas exploration – energy security and economic prosperity – remained far from becoming the overarching idea uniting key social and economic actors behind shale as a Bulgarian “national project.” It can be argued that Russian gas is perceived less as a threat in Bulgaria, due to a different historical experience, which makes the security narrative less compelling. Yet, as our findings suggest, the primary reason lies in the top-down manner in which shale gas as a policy issue was imposed on societal core constituents, and the exclusion of key stakeholders such as the energy industry. As a result, in default of a governmental “grand narrative,” fracking came to be perceived as serving vested private interests and state officials, rather than national purposes, and potential economic prospects remained subordinate to ecological concerns. In all, the valence of the policy narrative surrounding shale gas, and the “ideational uptake” among stakeholders, was high in Poland and low in Bulgaria.

In terms of institutions, neither countries established a “joined-up” approach toward shale gas. Poland lacked administrative capacity, operated on an incumbent sectoral model toward shale gas, which came with restrictive regulation, and struggled to establish regulatory coherence across subsystems and governance levels. This holds true for Bulgaria as well, though in the Bulgarian case, the problem was much more pronounced. The Bulgarian state agencies’ capacity for delivering on the government's policy objectives was much weaker compared to Poland, institutional procedures more centralized and overall outreach more restricted. Institutional strength in both countries can be judged as low.

That said, it is important to point to an important difference in Poland: an institutional process that, despite all the listed shortcomings, proved comprehensive and inclusive. It gave relevant state authorities on national, regional and local levels a role in shale gas licensing; it facilitated coordination, often informal as it was, between different agencies in granting and implementing exploration permits; and it proved flexible enough to allow for, however slowly, adjustments in regulatory procedures. This facilitated the inclusion of key actors, co-opted potential veto-players and gave them a stake. Five ministries were brought into the process, and state companies were put on par with foreign corporations, thus becoming stakeholders by benefitting from potential future gas production. Formal regulatory procedures included regional authorities and were complemented by informal processes fostering the engagement of local communities. On top, substate-level administrative entities, notably municipalities, were “bought in” by sharing expected future revenues.

Interest involvement in Bulgaria, by contrast, remained highly limited. Relevant actors such as the national Bulgarian energy company remained outside the shale gas policy regime, while other stakeholders in the energy sector and industry remained indifferent toward shale at best. Municipalities and local communities were not given opportunity to voice concerns or engage in discussions pertaining to unconventional gas extraction. In short, proponents of shale gas, notably the energy ministry, did not establish the mechanisms of “collaborative governance” that would facilitate stakeholder inclusion,

generate support among key actors and give momentum to its pro-shale policies. Overall, interest involvement can be labeled as strong in Poland and weak in Bulgaria.

The overall finding is that the Polish shale gas policy regime was strong, whereas the Bulgarian was weak, thus failing to "reinforce a shared purpose, mobilize efforts of key players and supporters, and focus the attention and authority of multiple subsystems in support of a common goal" (May, Jochim, and Sapotichne 2011), 291). As the analysis suggests, it is not only one specific element that facilitated (pro-) shale gas policies to take shape in Poland and prevented it from happening in Bulgaria. Rather, it is the interplay of a convincing policy narrative, a comprehensive institutional process and the inclusion of pivotal stakeholders that established a strong policy regime around Polish shale and made the critical difference. Figure 1 summarizes the empirical evidence on policy regimes in both countries, along the lines of ideas, institutions and interests.

Figure 1 here

7 Conclusion

This article highlighted the power of policy regimes in explaining divergence in shale gas policy in Central Eastern Europe. More specifically, it shed light on how political narratives (or ideas), in confluence with specific institutional processes and actor involvement, led to diverging policy trajectories in two countries that otherwise share similar environments. The findings add to our understanding of how strong policy regimes help establish legitimacy for a political project, ensure institutional and actor support across policy subsystems, and overcome fragmentation among interests and policy levels.

The main regime elements as identified in this paper may also serve as reference points for further investigation into shale gas policies in other EU member states. As EU-level policies can be held constant, it is the political narrative, institutional arrangements and the degree of stakeholder inclusion on national

and sub-national levels that explain divergence. But the approach taken in this paper may also travel more broadly. We expect insightful findings from national-level studies focusing on contested policy issues such as large-scale physical infrastructure projects, harsh economic austerity packages or ambitious low-carbon policies. All of these exhibit similar characteristics and come with similar challenges: they are “messy” and cut across multiple policy subsystems; they generate obvious costs for clearly defined constituents, but rather unclear short- to midterm benefits for the population more generally; they create potential winners and losers; and they create possible frictions with regards to existing governance frameworks and stakeholders. Empirical investigations, particularly of contested policy issues, thus promise to produce important insights into how policy regimes create governing arrangements that not only lend legitimacy to a specific policy, but also make it durable.

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¹ The EU leaves choices on the national energy mix to its member states. It so far also abstains from regulating subsoil resources ownership or exploitation.