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# SHALE GAS IN BULGARIA, THE CZECH REPUBLIC AND ROMANIA

POLITICAL CONTEXT – LEGAL STATUS – OUTLOOK

Tomasz Dąborowski, Jakub Groszkowski

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CENTRE FOR EASTERN STUDIES

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# Contents

## MAIN POINTS /5

### I. BULGARIA /8

1. Production potential – deposits and corporate interest in shale gas /8
2. Legal status – the ban on hydraulic fracturing and its modification /9
3. The shale gas debate /10
4. Outlook /13

### II. THE CZECH REPUBLIC /14

1. Production potential, legal conditions and progress in prospecting /14
2. The shale gas debate. Social and political reactions; legal consequences /15
3. Outlook /19

### III. ROMANIA /22

1. Production potential – deposits and corporate interest in shale gas /22
2. Legal regulations /23
3. Shale gas in public debate and local politics /23
4. Outlook /25

TABLE. Shale gas companies awarded exploratory licences in Bulgaria, the Czech Republic and Romania (updated August 2012) /27

## MAIN POINTS

- Over the past twelve months Bulgaria, the Czech Republic and Romania have made a U-turn in their approach to shale gas exploration and production. Until the end of 2011, the governments of these countries showed a positive (Bulgaria) or neutral (Romania, the Czech Republic) attitude both to prospecting for domestic deposits and the potential production of shale gas, which resulted in licenses being granted to companies specialising in the field. (Compared to Poland, however, the number of licences awarded in these three countries was negligible. Romania issued most but even there the total number did not exceed ten). **A wave of criticism from local society and environmentalists – often backed by interest groups – contributed to a shift in the position the countries’ governments took on the issue.** In early January 2012, Bulgaria introduced a complete ban on shale gas prospecting and production, while the new Romanian government announced a moratorium on all prospecting work in May and plans to extend it for a period of two years if it wins the December election. A similar moratorium is currently being prepared also by the Czech government.
- The sudden change of tack observed in the three countries stems from a combination of a number of socioeconomic and political conditions, including widespread fears over the potential environmental impact of hydraulic fracturing used in shale gas prospecting and extraction. **The growing distrust within society, based on real concerns expressed by local communities, has given impetus to highly effective campaigns launched by local environmentalists** (whose activism is relatively well-established in the three countries). **The change in attitude was also affected by the lack of information both about the benefits and the potential risks of shale gas production.** None of the countries has reliable estimates of the amount of shale gas they could extract at its disposal. This in turn makes it impossible to estimate the potential profit the countries could generate by tapping into their deposits. It should also be noted that the suspension of prospecting work was partly linked to the lack of local regulations that could address the specificity of shale gas production.
- The shift in the government’s position was also influenced by their political situation. **In all three countries, parts of the political class saw the growing public concern over the production of shale gas as an effective tool for the consolidation and mobilisation of the electorate, or even as an asset in on-going political battles with their opponents.**

Meanwhile, the discussions about the benefits of the project, particularly with regard to the energy security of the countries concerned, proved ineffective. The dynamics of the debate on shale gas have been further affected by the fact that it coincides with election campaigns in all three countries.

- **The foreign companies interested in the production of shale gas have failed to establish united and effective interest groups.** The companies did not launch media campaigns capable of counterbalancing the objections raised by the environmentalists, and their actions did not suggest that their presence in these countries was of strategic importance to the companies. In addition, little interest in the matter was shown by local production companies.
- The governments in Bucharest, Sofia and Prague have opted to wait out the period of uncertainty and it appears that in the medium term they are likely to use their influence to both formally and informally stall the prospecting and potential production of shale gas. This does not, however, rule out the possibility of future exploration and production. **One of the factors which could lead to the review of this approach could be the potential success of the shale gas industry in Poland. What happens in Poland is particularly significant since the on-going discussions about shale gas in Bulgaria, the Czech Republic and Romania have been making repeated references to the decisions taken by the government in Warsaw.**
- The complete abandonment of plans to prospect for shale gas in Bulgaria, the Czech Republic and Romania would mean the abandonment of an opportunity to increase the diversification of gas supplies and thus also the possibility to reduce these countries' dependence on Russia. If local deposits could yield industrial amounts of shale gas, the need for the Russian gas would be reduced, which would be particularly significant for Bulgaria (Romania has large deposits of conventional gas, while the Czech Republic imports a third of its gas from Norway). This is likely to be the main reason why **politicians and businessmen with a vested interest in closer cooperation with Russia have been engaged in criticism of the plans for local shale gas production (such opposition has been particularly visible in Bulgaria, but less so in the Czech Republic and Romania). It is likely that these actors have been making other, informal, efforts to influence the debate in all three countries.**

- Nonetheless, the apparent reticence of the relevant authorities to go ahead with shale gas projects is no indicator that the governments in these three countries are ignoring the need to diversify gas supplies with a view to improving their energy security. Bulgaria, the Czech Republic and Romania have been actively expanding their cross-border gas transmission infrastructure, and have not abandoned their efforts to look for local deposits of conventional gas, or to secure energy resources other than gas. Bulgaria and Romania, for instance, have been inviting investors interested in prospecting for hydrocarbon resources in the Black Sea; and all three countries have been running their own nuclear programmes. Taking all of the above into consideration, **the accusations that the respective governments have been taking decisions favourable to the Russian state, or have ignored the opportunity to improve their countries' energy security, are rather isolated and are expected to have little impact on the on-going public debate on the matter.**

## I. BULGARIA

### 1. Production potential - deposits and corporate interest in shale gas

To date, no large-scale tests have been conducted to estimate the size of the country's shale gas deposits. Prior to the introduction of the ban, the Bulgarian Economy and Energy Minister suggested that the size of the deposits ranged between 300 bcm and 1 tcm. The minister did not, however, cite any official reports to back up his estimates. So far, similar figures have been proposed only by the US Energy Information Administration (EIA). The EIA estimates that the total accessible shale gas deposits spread across Bulgaria, Romania and Hungary amount to around 538 bcm. At the moment, the only company confirming the presence of shale gas in Bulgaria is Direct Petroleum (DP). In September 2010, DP reported that according to its initial estimates, around 300 bcm of shale gas is available in the area covered under the Lovech licence.

An exact estimate of the Bulgarian shale gas deposits is currently impossible, since in early 2012 the government imposed a complete ban on the use of hydraulic fracturing - a method used both in prospecting and extraction. Research institutes are still permitted to carry out tests aimed at estimating the size of the deposits but only on the condition that they do not use hydraulic fracturing and do not use their findings for commercial purposes.

In practice, therefore, further tests can be conducted only using geological analyses (i.e. rock testing).

Prior to the introduction of the ban, over a dozen companies expressed interest in prospecting for unconventional gas deposits in Bulgaria. The most important of them was US energy giant Chevron, which in June 2011 won a bid to search for shale gas at the Novi Pazar field (the final licence agreement, however, was never signed). Other energy players interested in the project included Canada's Park Place Energy and the above mentioned Direct Petroleum, both of whom hold prospecting licences in Bulgaria (see Table, p. 27). Local environmentalists have also speculated that among the companies prospecting for Bulgarian shale gas was Rosgeocom (linked to the Russo-Bulgarian Overgas), which holds a licence for operations near the village of Rogozina in north-eastern Bulgaria. This area, however, borders on the Novi Pazar field, which had been secured under a separate licence by Chevron. To date, Bulgaria's state gas company Bulgargaz has expressed no interest in searching for shale gas.

A discovery of substantial deposits of shale gas in Bulgaria and the subsequent large-scale production of the gas would doubtless improve the country's energy security. Although natural gas accounted for just 12% of energy resources used by Bulgaria in 2011, the country is dependent almost entirely on imported gas. Domestic gas production meets no more than 15% of Bulgaria's gas consumption, while the rest of the demand is met by importing gas from Russia.

## **2. Legal status – the ban on hydraulic fracturing and its modification**

Prior to the introduction of the ban on the use of hydraulic fracturing, the Bulgarian companies interested in searching for shale gas operated under a legal framework regulating traditional activities involved in the prospecting and extraction of hydrocarbons. This changed with the introduction of a ban adopted by Bulgaria's parliament on 18 January 2012 which prohibits all use of hydraulic fracturing. The new regulations are to remain in place until further notice and any violation of the ban could lead to the loss of the licence and a fine. All companies prospecting for gas or oil were given three months to submit a declaration of the prospecting and extraction methods to the local directorate of geology.

The introduction of the ban resulted in significant confusion within the extractive industry. In February 2012, the Bulgarian Ministry of Energy and Economy reported that the framing of the ban effectively prevents the extraction of conventional gas from deep deposits, as well as making it illegal to use the country's sole gas storage facility at Chiren (where gas was pumped at high pressure). Consequently, the government set up a temporary parliamentary committee tasked with amending the ban to ensure that the production of conventional gas would not be affected and that the Chiren storage facility could stay open. The changes were approved by Parliament in mid June. The original clause, setting an upper limit of 20 atmospheres on the injection of chemical substances underground, was removed. The amended document did however retain a complete ban on the use of hydraulic fracturing and all other technologies which break up rocks to extract gas or oil.

The ban approved by Parliament was however only a resolution ('reshenie'), rather than a statutory decision. This means that the restrictions could be changed or withdrawn relatively quickly. The legal framing used by Parliament came under criticism from the opponents of shale gas production, who had been calling for a statutory ban. So far, Boyko Borisov's Cabinet has refused to

meet this demand, claiming that the current regulations are sufficient. Nonetheless, the possibility of future changes cannot be ruled out. In April 2012, the government set up a temporary Prospecting and Extraction Committee. The committee drew up the required changes to the January draft but, although it fulfilled its objective, it was not disbanded (in June its mandate was extended for another three months).

### 3. The shale gas debate

Public debate about the extraction of shale gas in Bulgaria began in earnest in June 2011 when US energy giant Chevron won its bid to undertake prospecting activities at the Novi Pazar field. The fact that the licence was given to one of the best-known energy companies, for which it was willing to pay a record US\$ 30 million, brought the issue to public attention. The risks associated with the extraction of shale gas became one of the most frequently discussed topics in the press, on television and above all on the Internet. Local media reported widely on the work done in this area in other countries but most reports focused on the negative aspects of the projects (including earthquakes in the vicinity of shale gas extraction operations, or the corruption scandal surrounding the granting of licences in Poland).

This led to the formation of two camps – the supporters and the opponents of shale gas production. Until the very last minute, the **supporters of the project** included Bulgaria's minority government formed by the Citizens for European Development of Bulgaria (GERB). Traicho Traikov, the country's Economy and Energy Minister, was highly vocal in the public debate on shale gas production, while Prime Minister Boyko Borisov tried to avoid public declarations on the matter. Support for the project was offered also by the right-wing Blue Coalition – a small political circle of a former anti-Communist movement, as well as a group of scientists and energy experts. Among the best known of them were geology professor Kristalina Stoykova from the State Geological Institute, and energy expert Ilian Vasilev, the former Bulgarian ambassador to Moscow. The US embassy in Sofia also played an important role in the debate; Ambassador James Warlick made frequent comments to the media highlighting the benefits of shale gas production. What was striking, however, was the fact that the public debate was not joined by representatives of the companies which had been engaged in prospecting for shale gas in Bulgaria.

The supporters of the project stressed that shale gas could play a central role in increasing the country's energy security and would strengthen the Bulgarian

economy. Energy and Economy Minister Traicho Traikov suggested that any future production of shale gas in the country would translate into lower gas prices, a diversification of supply sources, new jobs, and would generate additional corporate tax revenue for the state. The actions taken by the government focused exclusively on highlighting the positive impact of shale gas production in the country, and eschewed the most controversial issues which generate public concern – namely, the potential environmental risks of the project. The ineffectiveness of the government’s information policy was exemplified by the lack of public consultation on the matter, and the fact that the only parliamentary debate on shale gas production ever held in Bulgaria’s Parliament took place on the eve of the introduction of the ban. Experts remained divided on the issue but most agreed that the government should first measure the size of the Bulgarian deposits.

In contrast to the campaign launched by the government and the energy companies, the **opponents of shale gas production** in Bulgaria organised a highly dynamic, professional and innovative campaign. This camp consisted of dozens of organisations and environmental groups, as well as nearly all opposition political parties (with the exception of the Blue Coalition). Initially, the lead was taken by environmentalists, who set up the ‘Civil Initiative for the ban on the prospecting and extraction of shale gas using hydrofracking across Bulgaria’. The new group helped organise demonstrations across the country and coordinated the collection of signatures under a proposal for a statutory ban on hydraulic fracturing (collecting over 50,000 signatures). At the peak of public interest in the issue – in January 2012 – street protests were attended by over 10,000 people in 20 cities across the country. The demonstrators used catchy slogans and professionally produced banners and placards, which stressed the risk of drinking water being polluted and potential earthquakes. The group’s leaders – Borislav Sandov and Mariana Hristova – made frequent appearances in the local media. In addition, the opponents of shale gas were very active also online. They set up a number of websites (including <http://www.zonabg.com>, <http://shalegas-bg.eu>) and were present on various social network web portals. Their message focuses on the risk of an environmental disaster and points out the ineffectiveness of Bulgarian environmental protection procedures. The activists also launched scathing attacks on local scientists who supported the plans for shale gas extraction, and suggested that the individuals had links to US business circles and the secret service.

The opponents were soon joined by representatives of political parties, particularly the post-Communist Bulgarian Socialist Party (BSP). The party’s presidential

candidate in last October's election, Ivaylo Kalfin (who lost to the GERB candidate), turned opposition to shale gas production into one of his main campaign themes. BSP MPs also helped organise the early stages of public protests and drew up a bill which would introduce a statutory ban on hydraulic fracturing. They repeatedly stressed that the use of hydraulic fracturing could endanger the lives of the local people and could have a devastating impact on the environment.

It was also suggested that this new technology would be developed at the expense of nuclear energy projects, which BSP continues to support. Those politicians who have been most actively involved in the anti-shale gas campaign are often seen as representing the interests of Bulgaria's **nuclear lobby**, and are therefore believed to favour closer energy links with Russia. Among them are Energy Ministers in the BSP government Rumén Ovcharov and Petar Dimitrov, as well as BSP MP Petko Korumbashev. The public debate also raised the issue of how to protect Bulgaria's national interest and how to prevent local energy resources being exploited by foreign companies. This rhetoric was used mainly by the xenophobic Ataka (Attack) party, whose leader is known for making frequent anti-American statements.

Apart from the politicians and environmentalists, highly sceptical comments about shale gas production have been coming also from Bulgaria's well-developed nuclear industry. Bogomil Manchev, the chairman of the Bulgarian Atomic Forum and an authority on nuclear energy, stressed that shale gas in Bulgaria was nothing more than a political project which posed a real threat to the local environment. His company Risk Engineering, which operates internationally, was involved in the implementation of the Russo-Bulgarian NPP project in Belene. GERB abandoned plans for the plant in March 2012 but Bulatom, with very strong support from BSP, has recently launched a campaign aimed at reviving the project.

Sustained pressure from environmental groups and from the majority of the Bulgarian political scene, coupled with growing public opposition to the project (in mid-January there were demonstrations in 20 cities across the country), were the key reasons for the sudden U-turn in the government's position on shale gas. Prime Minister Boyko Borisov stated that he would not press ahead with the prospecting and extraction plans against the will of the people, while the ruling GERB party ensured a speedy adoption of a complete ban on the use of hydraulic fracturing. The sudden shift in policy came as a big surprise. Mr Borisov, however, is known for his tendency to change tack on controversial issues, making sure that he is seen as a leader willing to listen to his people.

The speedy manner in which the ban was introduced led to speculations that both the environmental groups and the entire campaign had been supported by 'hidden external actors'. These kinds of accusations have been coming mainly from Traicho Traikov, the Energy Minister in the GERB government, who has suggested that the campaign launched by the opponents to the shale gas project in Bulgaria had been coordinated by a foreign PR company. Meanwhile, suggestions that the opponents to the project were acting in the interest of the Russian state have been made by the Blue Coalition – the only political party to vote against the ban on fracking. The party, nonetheless, remains completely isolated in its support for shale gas production in Bulgaria since there is now general consensus on both sides of the political spectrum that the ban on the prospecting and extraction of shale gas in the country should remain in place.

#### 4. Outlook

Public debate on shale gas production in Bulgaria has become far less heated after the introduction of a parliamentary ban on the use of hydraulic fracturing and is now no longer centred on the justification of the ban but rather on ensuring its effectiveness. The overwhelming majority of the political actors in the country remain adamant in their opposition to the shale gas project. When Bulgaria's new Energy Minister Delian Dobrev (who replaced Traikov in March 2012 after his dismissal) announced that the ban on fracking needed to be amended, he stressed that the changes would not pave the way for shale gas extraction. Nonetheless, opponents of shale gas accused the government of trying to abandon the new restrictions and warned of new protests. The Civil Initiative set up by those opposed to fracking also continues to call for the introduction of the ban on the prospecting and extraction of shale gas into Bulgaria's geological and mining legislation. It therefore follows that the current debate about shale gas in Bulgaria does not revolve around whether the ban should have been introduced but rather whether the present regulations offer sufficient guarantees that no further prospecting and extraction of shale gas will be attempted. **This would therefore suggest that, at least in the medium term, there is no real chance that Bulgaria will lift its ban on the prospecting and extraction of shale gas.**

## II. THE CZECH REPUBLIC

### 1. Production potential, legal conditions and progress in prospecting

A report issued by the US Energy Information Administration in June 2011 mentions the presence of shale gas deposits in the Czech Republic, but does not specify how large they are. The Czech Gas Union (a union of local gas companies), which supports shale gas production in the country, has estimated that the production levels could meet 5%-10% of annual domestic gas consumption (400-800 mln m<sup>3</sup>), but did not mention the estimated size of the deposits. Local environmentalists, who have been in opposition to the project, claim that shale gas deposits in the country are much smaller (neither side however has been able to provide verifiable evidence for their estimates).

The general opinion in the Czech Republic is that any future production of shale gas in the country would have a negligible effect on the overall energy balance. This opinion is also held by the Ministry of Industry and Trade, which has excluded domestic deposits of shale gas from its energy strategy, which is currently being updated.

Currently, over 90% of natural gas, which accounts for about 20% of the country's energy balance, is imported. Almost two thirds of the gas comes from Russia, while the rest is supplied by Norway under a bilateral contract or purchased at the German gas exchange.

In the spring of 2011, Cuadrilla Morava (owned by Britain's Cuadrilla Resources Limited) and BasGas Energia (owned by Australia's Hutton Energy) applied to the Czech Environment Ministry for shale gas exploration licences for three sites selected by the companies. At the end of 2011, BasGas Energia was granted a five-year licence to prospect for shale gas outside the towns of Trutnov, Broumov and Nachod, located near the Polish border, while Cuadrilla Morava was given the green light to start its operations in the vicinity of Hranice, Koprivnice and Valasske Mezirici in eastern Moravia. The third licence applied for by BasGas Energia, which included potential deposits near Cesky Kras and the town of Beroun, around 30 km outside Prague, has not yet been processed for procedural reasons. Analyses conducted by the Czech Geological Institute suggest that shale gas deposits might also be located in southern Moravia, near Hodonin and Breclav, as well as in the Carpathians in the vicinity of the Slovak border.

The decision to award the licences without consultation with local government led to a series of objections from local authorities. The subsequent appeals stalled prospecting activities in both areas covered by the licences. Opposition from local environmentalists and the residents of Trutnov and Nachod led Environment Minister Tomas Chalupa to cancel the licence in April 2012 and ordered a review of the application. BasGas' resubmitted application, which is currently being processed by the Ministry, no longer refers to the region's most important environmental areas. In August 2012, the Czech Environment Ministry annulled also the licence for operations in eastern Moravia and ordered a review of the application.

In addition to foreign companies, the potential for local shale gas production has also attracted the attention of Czech energy firms. Among them is MND, owned by billionaire Karel Komarek, which has worked with several companies exploring shale gas deposits in Poland. It has been reported that MND is seeking a partner interested in starting exploratory shale gas drilling on MND's conventional gas deposits in southern Moravia, near the Austrian border.

## **2. The shale gas debate. Social and political reactions; legal consequences**

The controversial plans for shale gas production in the Czech Republic are not seen as a topic of national importance; the project has however caused a heated debate in the regions affected by the plans. The debate gained impetus in March 2012, after the first public protests were organised by shale gas opponents, leading to greater media interest in the issue. The discussion continues to be directed by local environmentalists, who have been calling for a nationwide ban on the use of hydraulic fracturing. The activists (known as the STOP HF coalition) have been cooperating with members of local government, supported by national politicians who originally come from the affected regions. Their opposition meanwhile is made up of the companies awarded the production licences and sporadic support for the project from representatives of the gas industry. The local elections, combined with the elections to the Senate (1/3 of the seats) scheduled for October 2012, politicise the issue and mobilise local councils. Interestingly, the views on shale gas in the Czech Republic do not appear to follow party lines: opposition to prospecting and extraction activities has been voiced by representatives of both the ruling and the opposition parties in the affected areas – not a single local politician has openly supported the drilling.

The government in Prague waited months before joining the debate and was therefore portrayed by environmental activists as a supporter of shale gas production. However, the situation changed in April 2012. The decision taken by the Environment Minister to annul the licences and to order a review of the applications, coupled with plans for a moratorium on shale gas prospecting, puts the Minister in an uncomfortable position between the opponents and the supporters of the project. Meanwhile, representatives of the Industry and Trade Ministry, who have been more favourably disposed towards permitting shale gas extraction in the country, have been far less engaged in the on-going debate. Prime Minister Petr Necas has not yet made any public comment on the production of shale gas in the Czech Republic.

It should be noted that the current public debate about the potential environmental impact of hydraulic fracturing follows a long series of environmental debates that feature regularly in the Czech media. Public opinion on environmental matters has been strongly shaped by the environmental effects of over forty years of unchecked exploitation of mineral resources under communism. The value of public contracts available to companies interested in dealing with the consequences of the lasting environmental damage has been estimated at 2.3 billion euros. Environmental issues are particularly important in places such as Ostrava, which is believed to have some of Europe's highest levels of air pollution, or north-western parts of the country, devastated by local opencast lignite mines. MPs representing these regions (regardless of political affiliation) have been highlighting the importance of environmental issues in political debate. The high levels of interest in environmental issues among the Czechs is also evident in the political success of the Green Party, which formed part of the ruling coalition between 2006 and 2010 (and held four portfolios). Its popularity continues to oscillate around the 5% election threshold.

Czech society is also characterised by high levels of activity among non-governmental environmental organisations, whose actions are regularly discussed in national debates. Their actions address both purely environmental issues (e.g. the felling of bark beetle hit trees in the Sumava National Park), as well as broader issues, such as the construction of new reactors at the Temelin nuclear power plant or elements of the missile shield (i.e. a planned radar facility at the Brdy military training range). Some of the organisations, particularly those opposing the use of nuclear power, receive funds from Austrian donors (including the Austrian state).

Czech supporters of shale gas prospecting argue that local deposits would not only improve the country's energy security but also stimulate economic growth

in the affected regions. A Czech Geological Survey (CGS) report, commissioned in June 2011 by the Environment Ministry, recommended that prospecting activities at the most promising sites be started. According to CGS, shale gas is an important domestic source of eco-friendly energy and the environmental risks associated with its production can be deemed acceptable if the production process is carefully managed. The project has also been backed by the head of the Czech Gas Union, who argues that the financial viability of domestic shale gas production can only be determined by a series of exploratory drills. He therefore believes that it is ill-advised of the government to block the work of those companies which are willing to explore the deposits at their own expense. A similar position has been taken by the Ministry of Industry and Trade.

The supporters of the shale gas prospecting have also argued that experience in other countries shows that hydraulic fracturing does not pose any risk to the environment. Czech MPs, however, are not convinced by these statements, and not a single one of them has openly supported plans for shale gas prospecting. Very few Czech politicians have backed the construction of exploratory wells, including: two ODS MEPs Hynek Fajmon and Oldrich Vlasak. Support for shale gas exploration has also been coming from sources close to President Vaclav Klaus, including the Centre for Economics and Politics (CEP) – a think tank established by the president.

Environment Minister Tomas Chalupa has also endorsed exploratory drilling in the Czech Republic. In his opinion, however, prior to any work starting, the government needs to amend key legislation to create an appropriate legal framework for the project. In September 2012, the Chalupa proposed a moratorium on shale gas prospecting which, if passed, would remain in place until June 2014. During this period, the Czech government would clearly define the rights and responsibilities of the licence holder and local government, and would adopt solutions preventing any drilling activity in the country's most important natural areas. The new prospecting regulations, expected to come into effect at the end of the moratorium, would contain a series of restrictions. The Environment Ministry would only award prospecting licences to those companies which are able to guarantee that their technology would not affect underground water flows and would not require the drilling of a large number of wells. If it transpires that the new stipulations cannot be met, the Ministry is prepared to delay further prospecting work until new technologies become available. It remains unclear whether the moratorium would be binding also for these companies which have already been awarded prospecting licences, or whether it would affect only new permits.

After several months of objections against the use of fracking, first raised in March 2012 by local government officials and environmental activists in the affected areas, the protest was moved to Prague. On 14 June, a draft bill proposing to ban all use of hydraulic fracturing in the Czech Republic passed its first reading in the Senate with just one objection – from Senator Stanislav Juranek (KDU-CSL). The bill was penned by Senators Petr Pakosta from Nachod (independent), Jiri Oberfalzer from Beroun (ODS) and Pavel Trpak from Trutnov (CSSD) together with the leaders of the STOP HF coalition. It is worth noting, however, that due to lack of interest among the senators, the vote was not preceded by any debate. In May, a draft of a similar bill was announced by the governors (*hejtmani*) from all Czech regions, led by Michal Hasek, the head of the South Moravian Region, an MP, and the deputy chair of the opposition Czech Social Democratic Party (CSSD). Unlike the bill drafted in the upper house, this proposal is clearly an anti-government party initiative. The plan to submit the draft for debate in the lower house can therefore be seen as an attempt to politicise the shale gas issue by the opposition CSSD.

Surprisingly perhaps, local energy business representatives have been rather reluctant to join the public debate on shale gas. In response to public support for the project from the head of the Czech Gas Union, the debate was joined by Hugo Kysilka – the marketing director of gas importer Vemex (which has links to Russia's Gazprom). Kysilka cited concerns about the potential environmental impact of hydraulic fracturing and stressed that since the expected size of the deposits is quite small, domestic shale gas production would not allow the country to end its reliance on foreign gas supplies. He also reminded Czech politicians about the plans to construct new pipelines which are to supply more gas from the East. The low estimates of the amount of shale gas available in the Czech Republic might also be the reason why the heads of the country's major energy companies have so far failed to comment on the issue. For the same reason, plans for domestic shale gas production in the Czech Republic have not featured in discussions between Prague, Moscow and Washington.

The limited interest in the domestic shale gas deposits have not however stopped the Czechs from analysing the impact unconventional gas deposits in other countries are having on the European energy market. Some economists have suggested that large-scale production of shale gas across Europe could precipitate a drop in the share value of the state energy giant CEZ. Large amounts of cheap gas in Europe would also raise questions about the financial viability of the plan to construct two new reactors at the Temelin nuclear power plant, since investors might be more interested in putting their money into gas-fired

power stations. None of this, however, can be controlled by the government in Prague. There are also many signals suggesting that Prague might support the development of shale gas production in Poland, since this would facilitate its access to cheap gas without the need to pay the social and environmental costs of the project.

### 3. Outlook

It is rather unlikely that the Czech parliament will approve a complete ban on the use of hydraulic fracturing; a more probable scenario is that MPs will pass the moratorium on shale gas prospecting drafted by the Environment Ministry. The government in Prague has been very cautious about how it deals with the issue, trying very hard to find the golden mean. On the one hand, the government agrees with the opponents of fracking, ruling out the possibility of allowing exploratory wells to be drilled in areas of outstanding natural beauty. On the other hand, it appears to accept the arguments proposed by the Czech Geological Survey, which favour the use of exploratory drills to estimate the size of the available deposits. At the same time, the minister has been keen to stress that there is no need to rush, since the deposits would not disappear, and the introduction of a moratorium would not decrease the potential for future profit. It is reasonable to assume, therefore, that **one of the objectives of this strategy is to wait and see how the shale gas issue is dealt with in Poland.**

Under the Environment Minister's proposals, Parliament would use the time offered by the moratorium to adopt amendments to the law on geological works, mining law and the environmental impact assessment regulations. The doubts about shale gas go hand in hand with the highly controversial debate about the so-called territorial limits for lignite mining in the northwest of the country. Under pressure from a strong coalition of MPs coming from the affected regions (particularly Milan Stovicek), the government is planning to amend mining law to prevent land expropriation for mining development. The passing of such changes would significantly restrict the development of any new deposits, including shale gas deposits.

## APPENDIX

### The situation in the individual areas of the Czech Republic which are likely to hold shale gas deposits

- **Trutnov**

The most serious protests against the use of hydraulic fracturing took place at the Trutnov field located near the Polish border, which was awarded to BasGas. Members of local government raised objections to prospecting activities mainly due to fears that the technology could pollute underground sources of natural mineral water, coupled with the negative experiences of the local population linked to the environmental damage caused by years of coal mining in the area. Local politicians stressed that until now the Environment Ministry blocked or restricted all kinds of construction or infrastructural projects in the area, citing environmental concerns. Therefore, when the central government issued a permit for shale gas prospecting in the region, without any consultation with local councils, the residents felt unable to accept the decision. Hoping to receive additional backing in its fight against the project, Nachod Town Council sought allies across the border in Poland's Kudowa-Zdroj.

Protests across the Trutnov site were led by Lubomir Franc, the governor (*hejtman*) of Hradec Kralove region representing CSSD, which is linked to his re-election ambitions in the October polls.. On 6 March, the governor invited representatives of regional government to come to Nachod where they held a meeting with delegates from the Environment Ministry and the energy company BasGas. During the meeting the local government officials signed the 'Nachod Declaration' in which they officially voiced their objection to the use of hydraulic fracturing in the region and offered full cooperation at every stage of the process. The local councils then appealed the decision to issue the licence, forcing BasGas to suspend all work at the sites. Without a doubt, the actions taken by the councillors from Trutnov and the surrounding areas influenced the Environment Ministry's decision taken in April to annul the licence and review BasGas's application again.

The Trutnov area is also home to a number of environmental groups, which subsequently established the STOP HF coalition led by Jiri Malik - the head of the Living Water association. The coalition, which currently unites environmentalists from across the country and several local authorities, calls for

a statutory ban on hydraulic fracturing in the Czech Republic, claiming that the technology leads to the pollution of underground water. Malik has attracted much attention from both the local and national media.

A separate group of people opposing shale gas prospecting and extraction in areas of outstanding natural beauty has been formed by several national park authorities located in the affected areas. Their demands have also won the support of the Krkonose National Park authorities, which borders on the Trutnov site, as well as a number of experts from the Czech Geological Survey.

- **Eastern Moravia**

In contrast to the strong and united opposition voiced in the regions surrounding Trutnov, local councils in the vicinity of Moravia's Valasske Mezirici unanimously supported shale gas prospecting in the region. Cuadrilla Morava was even welcomed by local environmental groups, which stressed only that the exploratory wells could not be drilled in the Beskydy National Park. The attitude of the local councillors and the region's residents, however, gradually changed over time. This was caused not only by unfavourable media coverage of the project but also due to a report produced by the Czech Geological Survey commissioned by the Environment Industry. The report concluded that the Moravian Wallachia (Czech: Valassko) was too valuable and sensitive to human interference to allow exploratory drilling to go ahead in the area. Consequently, local councillors decided to offer their support to the STOP HF coalition and raised their concerns using the Environment Ministry's appeal procedure, which effectively blocked the implementation of the prospecting licence. In August 2012 the Ministry annulled the original licence and ordered a review of Cuadrilla Morava's application.

- **Beroun**

BasGas Energia also applied for a licence to begin prospecting for shale gas in an area near Cesky Kras and the town of Beroun, around 30 km west of Prague. Although the application has not yet been processed for procedural reasons, groups of environmentalists and local residents have come together to voice their opposition against the project. The movement (linked to the STOP HF coalition) has been led by Beroun councillor Sarka Endrlova, who has since established links with councillors in neighbouring communities. Local government benefits from the significant media coverage since its actions have been backed by the managers of the popular Cesky Kras National Park.

### III. ROMANIA

#### 1. Production potential - deposits and corporate interest in shale gas

At present the only available data on the scale of shale gas deposits in Romania are rough estimates compiled by the US Energy Information Administration (EIA). The EIA has reported combined estimates for three countries: Hungary, Romania and Bulgaria, which suggest that the so-called Carpathian-Balkan basin could potentially contain 538 bcm of shale gas (separate estimates for Romania are currently unavailable). It should however be noted that in February 2012 the Romanian Ministry of Environment and Forests reported that in 2011 it had conducted initial tests to estimate the size of the country's shale gas deposits, although no further details have been made available. The tests were allegedly carried out by the National Agency for Mineral Resources in cooperation with the national research institute GeoEcoMar and three universities (in Bucharest, Iasi and Cluj).

Romania has managed to attract more interest from companies seeking to secure shale gas prospecting licences than both Bulgaria and the Czech Republic. To date, **over a dozen firms have expressed an interest in starting prospecting and extraction operations in Romania.** Among the major players entering the Romanian shale gas market are: US energy giant Chevron (which has been awarded four prospecting licences, three in Dobruja and one in the Moldova region); and Romania's Romgaz, which confirmed in June 2012 that it first used hydraulic fracturing back in the mid 90s, adding that at the time the company found that five of its twenty exploratory wells in Transylvania contained shale gas. The Romanian energy market is populated by a number of other companies, usually holding just a single licence for oil prospecting; they have however expressed equal interest in searching for local deposits of shale gas. Among them are Hungary's MOL, Canada's East West Petroleum and Media Resources (for more information about the awarded licences, see Appendix). To date, none of the companies has been able to fully confirm the presence of shale gas deposits in the country. The only optimistic news has been reported by Britain's Sterling Resources, which stated at the end of 2011 that it was 50% certain that its field contained 42 bcm of shale gas.

A discovery of shale gas and its subsequent extraction at an industrial scale would secure the dominance of gas in Romania's energy balance. Natural gas is the country's most important energy resource (it accounts for over 30% of all energy resources used in Romania). Importantly, over 80% of the

country's gas consumption comes from local deposits, while the remaining part is imported from Russia.

## **2. Legal regulations**

Romania does not currently have special legislation regulating the prospecting and production of shale gas. Companies interested in launching prospecting activities in the country need to apply for a regular licence for hydrocarbon exploration. As a general rule, any company holding a hydrocarbon licence in Romania may operate exploration works for unconventional resources. Nevertheless, according to the Environment Ministry, Romania lacks specific procedures used to assess the environmental impact of shale gas drilling.

When coming to power in May 2012, Victor Ponta's government included 'an immediate establishment of a moratorium on shale gas operation to complete studies that are ongoing at the European level on the environmental impacts of the hydraulic fracturing process' in its manifesto plans. So far, however, no relevant legislation has been adopted to facilitate such a moratorium. Nonetheless, the prime minister claims that the moratorium is effectively in operation and will remain in place until December 2012. After that – following the December parliamentary election – the government is to decide whether or not to extend the moratorium. It should therefore be understood that Romania has introduced a 'political' moratorium on shale gas prospecting and extraction, which has never been officially legislated.

## **3. Shale gas in public debate and local politics**

Shale gas became a topic of nationwide debate after Mihai Razvan Ungureanu's centre-right government awarded three licences to US energy giant Chevron in March 2012. The decision caused local protests on a limited scale. The largest demonstration was held in the town of Barlad (where the US company had been operating since 2010), where 5,000 people took to the streets to show their opposition to gas prospecting. The demonstrations were coordinated by the Association of Barlad Residents, led by an MP from the then ruling Democratic Liberal Party. The protests in other towns, however, were not led by a particular party and tended to be poorly organised. The issue of shale gas came to the attention of local environmentalists even before Chevron received its licences. In February 2012, one of the key organisations uniting environmental organisations penned a letter addressed to the Environment Ministry, demanding an explanation of the country's policy on shale gas prospecting and production,

stressing that the technology used in the process was harmful to the environment. The activity of Romanian environmental groups however was rather negligible, particularly when compared with the public outcry in neighbouring Bulgaria.

The decision to award the licences to Chevron attracted a lot of criticism from the then opposition Social Liberal Union. SLU cited Chevron's shale gas licences as an example of the government's inability to run the country and then used the matter as a formal argument in its justification for a vote of no confidence in Ungureanu's government. It should be noted that SLU's protests did not refer to the potential extraction of shale gas but rather to the unclear criteria used to award the licences. As could be expected, the government's subsequent decision to classify all information about the process proved highly controversial. Ungureanu's government argued that the move was necessary to protect trade secrets, even though Chevron requested the government to declassify the main terms and conditions of the contract, and stressed that the confidentiality clause was added by the government at its own accord.

The issue was widely reported in the local media and generated great interest from the opposition centre-left Social-Liberal Union. The leader of the largest party within SLU - Victor Ponta from the Social Democratic Party - accused the government of secretly selling the country's mineral resources. A similar accusation came from the leader of the National-Liberal Party (also an SLU member) Crin Antonescu, who stressed that he was **not protesting against shale gas production but against the procedures used to award the licences**. Shale gas was therefore associated by SLU with the manner in which the government privatised key state companies, exemplified by the sale of the copper producer Cupru Min or the controversial Rosia Montana gold mine. Soon after, shale gas became associated with the conflict surrounding the construction of a mine in Rosia Montana, which Romanian society saw as an example of the government's desire to maximise the state's profit by ignoring the interests of local communities and exposing them to a potential environmental disaster. In Romania, therefore, shale gas appeared as an element of a wider public debate about actions taken by the state with regard to the excavation of mineral resources and its relations with foreign investors.

One of the supporters of shale gas production has been Romania's right-wing president Traian Basescu, who is an outspoken critic of the central-left SLU. The president regularly stressed that the extraction of shale gas in Romania would offer the country an opportunity to reduce its dependence on foreign

energy supplies and cited Poland as an example to follow with regard to the use of shale gas as a way to improve the country's energy security. He also called for a quick decision on the future of shale gas extraction in Romania to end uncertainty among investors. The president also highlighted the need for close cooperation with western companies and called for a review of the system used to set fees for the exploitation of mineral resources.

The use of mineral resources became one of the three official reasons for a vote of no confidence in Ungureanu's pro-presidential government. After the no-confidence motion was passed, power in the country was handed over to the centre-left SLU and Victor Ponta was asked to form a Cabinet. One of the first declarations made by the new Cabinet was the introduction of a moratorium on shale gas prospecting and extraction. Since coming to power, however, SLU has not made any changes to the relevant legislation. Furthermore, in mid June 2012, the SLU-controlled Senate rejected a draft bill proposing a complete ban on the use of hydraulic fracturing in the country. The bill was submitted by a group of SLU MPs before the formation of Victor Ponta's government. The recent measures therefore suggest that SLU politicians have abandoned their earlier plans to introduce the moratorium. It should be noted that the Environment Minister in the SLU Cabinet has reiterated his plans to introduce a two-year moratorium on shale gas prospecting if the party wins the next election but it is clear that the debate on the issue has died down. At present, public debate in Romania has been dominated by the start of impeachment proceedings against president Traian Basescu, initiated by SLU in early July. This may suggest that the issue of shale gas extraction was used by SLU purely instrumentally to fight political battles with Ungureanu's government.

#### 4. Outlook

The moderate activity of Romanian environmental groups, coupled with the lack of activity among Romanian interest groups opposed to shale gas production, effectively means that **Romania's position on shale gas will depend mainly on the way the political situation in the country unfolds, and particularly on how the political conflict between the government and president plays out.** The most probable scenario is a continued deadlock between the centre-right president and the favourite in the December parliamentary election – the centre-left SLU. This would increase the likelihood of a legal moratorium on shale gas, since SLU's dislike for the president would likely further politicise the issue, with both sides opting to use it in their day-to-day political battles. Alternatively, however, the on-going political conflict could be

won by either SLU or President Basescu. SLU currently enjoys the support of around 50% of the electorate and is seen as the favourite in the December parliamentary election. By forming a government after the election, SLU could try to remove the president from power (e.g., by resuming the impeachment proceedings). However, should SLU fail to do particularly well in the election, the president might try to form a new government by forging alliances with other parties. This would be further facilitated by the fact that the president has at its disposal the constitutional prerogative to appoint his prime minister. Both scenario – the consolidation of power by SLU, and the formation of a pro-presidential government after the elections – offer less chance of a moratorium.

**Further developments around the issue of shale gas in Romania could also be affected by the evolution of diplomatic relations between Bucharest and Washington.** When SLU began impeachment proceedings against the pro-American Basescu, and following a subsequent referendum, the United States expressed serious concern over the party's actions, which Washington described as in violation of the standards of the rule of law. The US reaction, seen in Romania as a show of support for Basescu, led to a growing distrust of American foreign policy among both the ruling party and parts of Romanian society. And since shale gas projects are generally associated with US interests in the region, the issue could become a bargaining tool in Bucharest's relations with Washington. It should be stressed, however, that the issue could be used both as an anti-American tool (by introducing a moratorium) or as a gesture of good will, stressing the desire to maintaining Bucharest's good political relations with Washington (by abandoning the plans for a moratorium).

*Last update 25 September 2012*

**TABLE. Shale gas companies awarded exploratory licences in Bulgaria, the Czech Republic and Romania (updated August 2012)**

<b>Company</b>	<b>Site location</b>	<b>Additional information and progress</b>
<b>BULGARIA</b>		
Park Place Energy Corporation	A prospecting licence for a site in Dobrich region, Dobruja (north-western Bulgaria). Blocks: Vranino 1 - 11	The licence was awarded in October 2010, and confirmed in court in March 2012 (following an appeal by another bidder). Park Place Energy specialises in prospecting for shale gas; following the ban on fracking, the company has vowed to abide by the new restrictions.
Transatlantic Petroleum Ltd. (via Direct Petroleum)	A prospecting licence Lovech (north-eastern Bulgaria)	The licence was awarded to Bulgaria's Direct Petroleum back in 2004. In 2011, the company was taken over by US Transatlantic Petroleum. Initial exploratory tests at the site confirm the presence of both shale gas and conventional gas deposits in the area. The company does not offer progress reports but has invited bids from companies interested in prospecting for conventional gas at the site.
Chevron (licence agreement remains unsigned)	Novi Pazar, Dobruja (north-western Bulgaria)	Chevron was awarded preliminary licence permit in June 2011, but in January 2012 Bulgarian government annulled the outcome of the bidding process and decided not to sign the final licence agreement.
<b>CZECH REPUBLIC</b>		
BasGas Energia	Trutnov, Broumov Nachod – Northern parts of the Czech Republic, near the Polish border.	The licence was awarded in 2011, and then annulled in April 2012 by the Environment Ministry and referred for review. The company then resubmitted an amended application for a smaller site, without areas of outstanding national beauty.
Cuadrilla Morava	Hranice, Koprivnice, Valasske Mezirci (Moravia)	The licence was awarded in 2011, and then annulled in August 2012 by the Environment Ministry, and referred for review.

Company	Site location	Additional information and progress
<b>ROMANIA</b>		
Chevron	Barlad, north-eastern Romania, near the Moldovan border.	Chevron received its oil and gas exploration licence in 2010 from Regal Petroleum (originally awarded to RP in 2004). Area 6,257 km <sup>2</sup> , Chevron is planning three exploratory wells (ca. 3-4 km deep). No progress reports available.
Chevron	Adamclisi, Costinesti, Vama Veche, south-eastern Romania, near the Bulgarian border.	The licence was awarded in March 2012 for a total of 2,700 km <sup>2</sup> . No progress reports available.
MOL and Expert Petroleum (70% / 30%)	Voivozi (Ex-1), Adea (ex-5), Curtici (EX-6) - north-western Romania	The licence was awarded in April 2012 for a total of 3,434 km <sup>2</sup> . MOL has indicated that the site may contain unconventional gas and oil deposits and plans to carry out prospecting activities. No progress reports available.
East West Petroleum (EWP) together with Naftna Industrija Srbije (NIS) - 85%/15%	Ex-2 (Tria), Ex-3 (Baile Felix), Ex-7 (Periam), Ex-8 (Biled) - North-western Romania	Each licence covers around 1,000 km <sup>2</sup> . East West Petroleum suggests that all sites are likely to contain shale gas deposits. To date, however, no exploratory work has been done.
Media Resources (controlled by Sterling Resources) together with Transatlantic Petroleum (each holding a 50% stake)	EIII-7, Sud Craiova - south-western Romania (Oltenia)	The licence was awarded in 2000. Agreement on oil and gas prospecting; the companies express interest in prospecting for unconventional gas deposits.
Zeta Petroleum (50%) and Raffles Energy Pte (50%, operator on the deposit)	Climauti, Suceava (Bukovina, northern Romania)	In late May 2012, Zeta Petroleum purchased Regal Petroleum together with its exploration and production licence. Zeta Petroleum announced that the concession offers both conventional gas as well as unconventional gas potential.

<b>Company</b>	<b>Site location</b>	<b>Additional information and progress</b>
Romgaz	Romgaz operates 8 licences, lack of data on individual licences in Transylvania	In June 2012, Romgaz representatives confirmed that tests conducted in the 90s uncovered shale gas deposits in 5/20 wells in Transylvania. No further details about the exact location of the site or subsequent progress are available.

Despite their initial interest in shale gas exploration, over the past year Bulgaria, the Czech Republic and Romania have become increasingly sceptical about the development of unconventional gas resources. In January of this year Bulgaria introduced an indefinite ban on the exploration and production of shale gas and Romania followed suit in May by introducing a six-month moratorium on exploration work, which it plans to extend by another six months following the country's parliamentary elections scheduled for December. Similar measures are being planned by the government in Prague. The aim of this report is to explore the reasons why countries which claim to want to improve their energy security have been showing increasing scepticism towards shale gas.

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