ENERGY SECTOR

Shale gas: not an easy bet after all

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Less than two years ago, shale gas seemed to be the dauphin of the Polish energy sector. Heady predictions about the country's potential reserves – chiefly, the US Energy Information Administration estimated that Poland held 5.3 trillion cubic metres of shale gas reserves – attracted a string of international exploration companies to drill deep below the surface. As the ministry of environment happily dolled out drilling licences (111 to date), it seemed that Poland would, at last, be able to wean itself off Russian gas imports and become a self-sufficient producer, and potential net exporter of gas. Now, however, those early estimates are looking more like wild guesses than accurate figures.

It's not all bad news though. If the Polish Geological Institute's calculation that shale gas reserves measure between 346 and 768 billion cubic metres – about a tenth of the original cast away figure – turns out to be true then Poland still looks set to have enough reserves to last between 35 to 65 years. The government has pegged its immediate hopes on developing both shale gas and nuclear energy to reduce the country's dependence on polluting coal and Russian natural gas, and meet the criteria set out by the EU's carbon reducing 2020 climate and energy package.

This two-pronged safety net strategy appears however, to be undergoing a subtle revision of late. Prime Minister Donald Tusk has stated that both shale gas and nuclear remain priorities. Yet, there was a telling absence of any reference to the planned nuclear energy programme in his exposé last October to the Sejm. "You cannot invest in both", says Paweł Puchalski, senior equity analyst with Warsaw based BZ WBK Brokerage. "The nuclear project should not be abandoned, but the priority should be given to shale gas if it is there", he added. The construction of the first nuclear power plant – to be operational by 2025 and capable of producing 3GW – could cost a hefty 50bn zł, whilst a second plant is planned for 2035.

The shale versus nuclear debate is gaining prominence. PGE's president Krzysztof Kilian (the group's sibling entity, PGE Energia Jądrowa is overseeing the creation of the Polish nuclear programme) described investing in both shale gas and nuclear as akin to having "left and right-hand sided traffic on the same street". Problematically for advocates of shale gas, test drilling on concessions has not provided companies with much to shout about. Of the 111 licences granted by the ministry of environment, ten companies have drilled only 31 wells to-date – only two of which have been horizontally fracked. Junior minister for shale

photo: Jacek Szydłowski (Forum)

A shale gas drill in Wierzbica in Lubelskie voivodship run by Orlen Upstream. The country's environment ministry handed out many drilling licenses to companies from around the world, each hoping to strike it lucky.

gas at the ministry of environment, Piotr Woźniak has taken a realistic stance. He believes that shale gas will become commercially exploitable by 2016.

"The government is still waiting for big questions to be answered on whether it is profitable to pour long-term investments into shale gas, under specific Polish conditions," says Łukasz Cioch from Krakow based Tischner Centre for Energy Studies, adding that, "2013 is going to be critical to finding those answers and bring far more legislative, organisational and, most importantly, strategic clarity about the energy sector's long-term horizon." Companies too, are showing signs of getting cold feet. Exxon Mobil packed up its machinery last June after test drilling provided lacklustre results, and has since relinquished all but one of its six concessions. And, in early December, rumours seeped into the Polish press that Canadian oil and gas exploration group, Talisman Energy was weighing up its options in Poland.

"I think the opportunity (on shale gas) is closing now and that major companies will be pulling back from Poland," says Grzegorz Pytel, from the Warsaw based Sobieski Institute. Pytel maintains that government proposals to place a 40% tax on future shale gas profits is "way too risky" for private companies who have committed large resources at this early and uncertain stage of exploration. Yet, the race is still on. International firms ConocoPhillips, Chevron, 3Legs, San Leon (currently merging with Aurelian Oil & Gas) and others are still digging deep across the Baltic Basin, the Danish-Polish Marginal Trough, the Podlasie Depression and the Lublin Trough (north-east and eastern Poland in everyday parlance). State controlled oil and natural gas monopoly PGNiG appears unfazed by recent concerns about dwindling estimates of the actual reserves of shale. PGNiG plans to drill as many as ten more wells in 2013, a sign perhaps that the state company is not under the same duress as its private competitors.

According to Andrzej Sikora, Director of the Institute of Energy Studies in Warsaw, the government needs to appoint someone "who is responsible for the energy sector in Poland" in order to convey a clear message on energy policy. Moreover, Sikora suggests that the ministry of economy's 2009 energy strategy be updated – it currently makes no reference to shale gas as part of the country's future energy mix. For the sake of future investment in Polish shale gas, both exploration companies and the government will be hoping to obtain concrete answers this year on whether shale can become commercially exploitable. If the guessing games continue, Polish dreams of creating energy self-sufficiency could start to ebb.

In other energy news, despite talk of nuclear energy being quietly sidelined by the government, the decision making process regarding the location of the country's first nuclear energy plant is developing pace. In January, PGE Energia Jądrowa (PGE Nuclear Energy, the body established to construct and manage any future plant) hired Australian provider WorleyParsons Nuclear Services to conduct "characterisation, licensing and permitting services" on potential locations. The contract is worth 252 m zł. Kompania Węglowa (KW), Europe's largest coal producer, sold 5% more coal in January, compared to previous years. The recent cold snap was responsible for increased sales, company spokesperson Zbigniew Madej told reporters. KW, which currently has stocks of about five million tonnes of unsold coal, plans to reduce production this year to 36.5 million tonnes, down from 39.3 million tonnes in 2012. And, PGE is going green. PGE Obrót (PGE Trading) has announced a new scheme called 'Eko PGE Energia', which offers small and medium sized firms energy supplies produced entirely from renewable energy sources. Companies that sign up can benefit from a fixed price until the end of 2014, but the offer closes at the end of March.

● **by Liam Nolan**