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TAXATION OF THE PROSPECTING, EXPLORATION AND EXTRACTION OF SHALE GAS ON POLISH TERRITORY

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Abstract

The article presents the most important legal regulations addressing taxation of the prospecting, exploration and extraction of shale gas on Polish territory, discussing the types of taxes applicable to enterprises engaged in this type of activity: the hydrocarbon tax, the tax on the extraction of some minerals, income tax, environmental usage fee, and property tax. The research issue is an important one when considering how the taxes assessed on entities conducting activity that consists in the prospecting, exploration and extraction of shale gas is one of the factors determining the profitability of such activity in Poland.

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Keywords:

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Previous experiences in respect of the extraction of minerals and geological studies conducted in Poland indicate there is a high possibility of the existence of extensive hydrocarbon deposits, particularly within shale formations. The emergence of the possibility to extract shale gas, previously inaccessible owing to technological limitations, places before Poland the perspective of a significant increase in the production of natural gas and crude oil¹. The State Treasury, pursuant to Art. 10 paras. 1 and 5 of the Act of 9 June 2011 on Geological and Mining Law², is the owner of underground deposits of natural resources. As a result, it is also entitled to a portion of the resource rent, consisting of the surplus of income from the sale of resources that exceeds the cost of their extraction. The State Treasury's taking of a portion of resource rent is done in the legal form of particular taxes assessed on enterprises conducting commercial activity consisting in the prospecting, exploration and extraction of shale gas in Poland. The system of taxes assessed on such activity is comprised of:

- 1) special hydrocarbon tax,
- 2) tax on the extraction of some resources,
- 3) income tax,
- 4) environmental usage fee,
- 5) property tax.

The objective of this article is to present an outline of the primary legal regulations addressing the taxation of prospecting, exploring and extracting shale gas in Poland. This is an important issue when considering that the size of the taxation burden imposed on entities conducting commercial activity which consists in the prospecting, exploration and extraction of shale gas is one of the factors determining the profitability of such activity in Poland.

¹ Elaboration of government draft Bill on a Special Hydrocarbon Tax, amendment to the Act on the tax on the extraction of some minerals, and on amendments to other Acts, Sejm Paper no. 2351/VII, p. 1.

² Dziennik Ustaw of 2015, item 196 (as amended).

1. Special hydrocarbon tax

One expression of the State's efforts to collect a portion of the resources rent from enterprises engaged in the prospecting, exploration and extraction of shale gas in Poland was the adoption of the Special Hydrocarbon Tax Act of 25 July 2014³, which introduced a new tax into the Polish legal regime – the special hydrocarbon tax. This tax is a form of resource rent tax on the profit from the production of hydrocarbons and its essence lies in the tax net profit of the extraction of shale gas. The referenced Act also expanded the subjective scope of the tax on the extraction of some resources to include natural gas and crude oil. These regulations came into force on 1 January 2016, while the obligation to pay the special hydrocarbon tax will take effect on income generated beginning 1 January 2020.

The special hydrocarbon tax encompasses taxation of the profit generated by the extraction of hydrocarbons, with the definition of “extraction” to include the prospecting and exploration of hydrocarbon deposits. This tax constitutes income to the state budget. Taxpayers are natural persons, juridical persons and organizational entities without legal personhood, engaged in the extraction of hydrocarbons. The tax base of the special hydrocarbon tax is the profit on hydrocarbon extraction activity, consisting in the surplus generated in a given tax year from income generated by hydrocarbon extraction activity that exceeds qualified expenditures. If qualified expenditures in a given year exceed the amount of profit, the difference thereby constitutes a loss on hydrocarbon extraction activity. The Act contains more detailed regulation addressing the manner in which income and qualified expenditures are determined. Importantly, under the Special Hydrocarbon Tax Act, qualified expenditures also include income tax in respect of hydrocarbon extraction activity, the tax on the extraction of some resources concerning natural gas and crude oil, the environmental usage fee levied on the extraction of hydrocarbons, and taxes and fees associated with the administration of real property where the mining facility is located.

The rate of the special hydrocarbon tax is calculated according to the so-called R-factor⁴, which is the ratio of total income to total qualified expenditures⁵. In the event the R-factor is:

³ Dziennik Ustaw of 2016, item 979.

⁴ Compare *The taxation of petroleum and minerals: principles, problems and practice*, eds. P. Daniel, M. Keen, Ch. McPherson, London and New York 2010, p. 100.

⁵ Definitions of total income and total qualified expenses are contained in Art. 2 paras. 5 and 6 of the Special Hydrocarbon Tax Act.

- 1) less than 1.5 – the tax rate is 0% of the tax base;
- 2) equal to or greater than 1.5 and less than 2 – the tax rate is calculated thus:
 $(25 \times R \text{ factor} - 25)/100$;
- 3) equal to or greater than 2 – the tax rate is 25% of the tax base.

The R-factor is calculated for every accounting period. When the R-factor is equal to or greater than 1, this means that extraction activity has generated a profit, but with a view to the tremendous investment costs in the initial period of the activity, those profits are small. If the R-factor is less than 1.5, this indicates that a profit on extraction activity has been generated, but until this level has been reached the taxpayer does not pay any tax. When the R-factor is between 1.5 and 2, a progressive tax rate is applied ranging between 12.5% and 25%. The highest tax rate kicks in at the moment when the total income is twice that of the total expenditures, when the enterprise can be said to be highly profitable⁶.

2. Tax on the extraction of some minerals

A tax on the extraction of some minerals was introduced into the Polish legal order by the Act of 2 March 2012⁷, which entered into force on 18 April of that same year. The tax is a form of royalty. The assumption guiding the author of the legislation was the intention to capture the excessive profits of entities mining copper and silver⁸. As of 1 January 2016, the Special Hydrocarbon Tax Act expanded the subjective scope of the tax to include the extraction of natural gas and crude oil. Similarly to the special hydrocarbon tax, the obligation to pay the tax on the extraction of some minerals takes effect in respect of natural gas and crude oil extracted from 1 January 2020. Tax is not levied on extracted natural gas in quantities not exceeding the equivalent of 11 MWh monthly, as well as extracted crude oil amounting to less than one tonne monthly, on condition they are used for research purposes. The tax on the extraction of some minerals constitutes income of the state budget.

⁶ Elaboration of the government draft Bill on a Special Hydrocarbon Tax, amendment to the Act on the tax on the extraction of some minerals, and on amendments to other Acts, Sejm Paper no. 2351/VII, p. 20.

⁷ The Act of 2 March 2012 on the Tax on Extraction of Some Minerals, Dziennik Ustaw of 2012, item 362 (as amended).

⁸ Elaboration of government draft Bill on a tax on some minerals, Sejm Paper no. 144/VII, p. 13.

Taxpayers of the tax on the extraction of some minerals are natural and juridical persons, as well as organizational entities without legal personhood, whose commercial activities involve the extraction of copper, silver, natural gas or crude oil. In respect of extraction of natural gas and crude oil, the obligation to pay tax arises at the moment the natural gas or crude oil is introduced into a distribution network, or at the moment natural gas or crude oil is loaded into another mode of transport. The tax base in respect of natural gas and crude oil is the value of the extracted natural gas or crude oil. The value of the extracted natural gas is the product of the quantity of extracted natural gas expressed in MWh and the average price of natural gas. In turn, the value of extracted crude oil is the product of the quantity of crude oil expressed in tonnes and the average price of crude oil. The quantity of extracted natural gas and crude oil is determined on the basis of measurements taken at points where the natural gas or oil is inserted into a distribution network or at the moment the natural gas or crude oil is loaded onto another mode of transport. The average price of one MWh of natural gas and of a tonne of crude oil is announced by the Minister of Finances by the 15th day of every month for the preceding month in the Official Journal of the Minister of Finances, on the basis of the mathematical average of the spot price of natural gas as set by Polish Power Exchange for the preceding month, whilst for crude oil it is the average OPEC daily basket price of crude oil as determined by the Organization of the Petroleum Exporting Countries for the preceding month.

The tax rate on extraction of some minerals for natural gas is:

- 1) 1.5% – for natural gas extracted from deposits whose average permeability does not exceed 0.1 millidarcy and the average porosity does not exceed 10%;
- 2) 3% – for natural gas extracted from other sources than those named above.

The tax rate on extraction of some minerals for crude oil is:

- 1) 3% – for crude oil extracted from deposits whose average permeability does not exceed 0.1 millidarcy and the average porosity does not exceed 10%;
- 2) 6% – for crude oil extracted from other sources than those named above.

The differentiation of tax rates for deposits based on permeability and porosity results from the fact that hydrocarbons stored in deposits featuring low permeability and porosity are difficult to reach, and their extraction is associated with higher investment costs⁹. The tax bill for a given month is the sum of the products

⁹ Elaboration of government draft Bill on the Special Hydrocarbon Tax, amendment to the Act on the tax on the extraction of some minerals, and on amendments to other Acts, Sejm Paper no. 2351/VII, p. 27.

of the value of extracted natural gas expressed in PLN, or the value of extracted crude oil expressed in PLN, and the tax rate given above.

The Act on the extraction of some minerals also contains tax exemptions concerning stripper wells. The extraction of natural gas from a prospecting or extracting well is exempt from taxation in the event the monthly volume extracted does not exceed the equivalent of 1100 MWh, while in the case of crude oil this exemption applies when the monthly volume extracted does not exceed 80 tonnes.

3. Income taxes

Prospecting, exploring and extracting shale gas in Poland is subject to both the special taxes described previously and income taxes. Income taxes are regulated in the Act of 26 July 1991 on Personal Income Tax¹⁰ and the Act of 15 February 1992 on Corporate Income Tax¹¹. Revenue from income taxes is allocated to the state budget and the budgets of local self-government units, in compliance with the regulations in the Act on the income of local self-government entities¹². The awarding of shares in the revenue from income taxes to local self-government units is intended to defray the costs they must bear in conjunction with the extraction activity conducted in their territory. It is also intended to compensate for the damage caused to the natural environment by extraction activities¹³. It additionally facilitates the development of local self-government units owing to additional own revenues which can then be used to make investments.

Taxpayers of personal income tax are exclusively natural persons. Corporate income tax is paid by juridical persons, capital companies in organization and organizational entities which do not possess legal personhood, excepting companies without legal personhood: civil law partnership, general partnership, professional partnership and limited partnership. Partners in such companies pay personal income tax. From 1 January 2014, taxpayers of corporate income tax also include limited joint-stock partnerships with their seat or management board located

¹⁰ Dziennik Ustaw of 2012, item 361 (as amended).

¹¹ Dziennik Ustaw of 2014, item 851 (as amended).

¹² The Act of 13 November 2003 on Local Self-Government Units Income, Dziennik Ustaw of 2015, item 513 (as amended).

¹³ A. Lipiński, *Nowy model opłat eksploatacyjnych w prawie geologicznym i górnictwym (uwagi de lege ferenda)* [in:] *Księga jubileuszowa Profesora Marka Mazurkiewicza. Studia z dziedziny prawa finansowego, prawa konstytucyjnego i ochrony środowiska*, Wrocław 2001, p. 385.

in Poland. A capital group may also be a corporate income tax payer. All types of income, regardless of the source of the revenue, are subject to income taxation, excepting income explicitly exempted from taxation. The tax base for income taxes is income, understood as the difference between revenue and the costs of its acquisition. An exception to this principle can be identified in lump-sum forms of taxation in which the tax base consists of revenue. Both pieces of legislation contain extensive lists of exemptions. A progressive scale with tax rates of 18% and 32% is applied to personal income tax, while natural persons with a registered commercial enterprise may opt for a 19% flat tax rate. The primary tax rate for corporate income tax is 19%.

Of significance for the profitability of conducting commercial activity that consists in the prospecting, exploration and extraction of shale gas in Poland is that neither of the income tax statutes consider the special hydrocarbon tax or the tax on the extraction of some minerals as tax-deductible costs.

4. Environmental usage fee

Another form of public tribute which enterprises engaged in prospecting, exploring and extracting shale gas in Poland must pay is the environmental usage fee, regulated in Chapter VII of the Geological and Mining Act. The detailed regulations concerning the prospecting, exploration and extraction of shale gas were implemented by the Act of 11 July 2014 amending the Geological and Mining Act and some other Acts¹⁴, also referred to as the “hydrocarbon amendments”¹⁵. This Act, together with the previously-referenced Special Hydrocarbon Tax Act of 25 July 2014 comprised a legislative package regulating the issue of prospecting, exploring and extracting shale gas in Poland. The change entered into effect on 1 January 2016. In accordance with the new rules, income from the environmental usage fee as relates to hydrocarbons is split: 60% goes to the commune, 15% to the county, and 15% to the province in which the activity is conducted, while 10% goes to the National Fund for Environmental Protection and Water Management. The Geological and Mining Act distinguishes the fee for awarding a concession from the environmental usage fee proper.

¹⁴ Dziennik Ustaw of 2014, item 1133.

¹⁵ Cf. A. Lipiński, *Zmiany prawa geologicznego i górnictwa (tzw. nowela węglowodorowa)*, “Przegląd Ustawodawstwa Gospodarczego” 2014, no. 9, p. 2 et seq.

The concession fee for prospecting and exploring deposits of hydrocarbons and for the extraction of hydrocarbons is the product of the rate and the size of the terrain encompassed by the concession, expressed in square kilometres (surface rent tax). This means that the actual amount of the fee is dependent on the size of the land which the concession applies to. In accordance with the information provided by the Minister of the Environment, under the regulations of the Geological and Mining Act, the fee in 2016 for activity related to prospecting and exploring hydrocarbon deposits for one square kilometre amounts to PLN 212.52. The fee is a one-off tribute and is payable within 14 days of the day on which the concession becomes final.

An environmental usage fee is to be paid by an enterprise that acquires a concession for prospecting and exploring deposits of hydrocarbons, as well as for the extraction of hydrocarbons – the investment decision. The environmental usage fee is established as a product of the rate and the amount of the resource extracted from proven and unproven reserves in one accounting period. The rate of the environmental usage fee for particular types of minerals, as in the case of the fee for issuing a concession, is determined on an annual basis by the Minister of the Environment. For high-methane natural gas whose extraction during a given accounting period exceeds 2,500 thousand m³, this rate is PLN 24.00 /1000 m³, whereas in respect of high-methane natural gas whose extraction in a given accounting period does not exceed 2,500 thousand m³, the fee is PLN 6.23/1000 m³. In turn, the rates for crude oil are PLN 50.00/t for extraction in a given accounting period exceeding 1000 t, and PLN 36.84/t for smaller volumes. It is worth pointing out that the rates for environmental usage fees are four times higher in the event of extraction of high-methane natural gas in large quantities. The intention of the legislator here was to ensure that local self-government units receive their fair share of income from the extraction of shale gas¹⁶.

The environmental usage fee can also come in the qualified form of an additional fee, or a penalty fee. An additional fee is collected in respect of activity conducted in gross violation of the conditions set forth in the concession, confirmed plans for geological works or plans subject to a notification requirement. The fee is separate from other assessed fees. An additional fee is imposed by way of administrative decision issued by the relevant concession authority or geological administration entity that verified the planned geological works or to whom plans for geological

¹⁶ Elaboration of the government draft Bill to amend the Geological and Mining Act and some other Acts, Sejm Paper no. 2352/VII, p. 51.

works were submitted by way of notification. The Geological and Mining Act sets out the rates for the fee and the manner in which it is to be paid in Art. 139 paras. 3 to 5. In turn, a penalty fee is assessed on activity conducted without the required concession, or without a confirmed/submitted plan for geological works. The relevant authorities for such cases are the minister responsible for environmental affairs, and the appropriate mining oversight body. The rates for the fee and manner in which it is to be paid are regulated in Art. 140 paras 2 to 5 of the Geological and Mining Act.

5. Property tax

Entities conducting activity consisting in prospecting, exploring and extracting shale gas in Poland may also be subject to property tax. This tax is regulated in Section 2 of the Local Taxes and Fees Act of 12 January¹⁷. Revenue collected by this tax constitutes income for communes.

The property tax is assessed on land, buildings and part thereof, as well as structures and portions thereof associated with conducting commercial activity. Taxpayers of the property tax are natural and juridical persons, as well as organizational entities which do not possess legal personhood, and which enjoy freehold rights to real property and/or buildings, the right of perpetual usufruct, and also the possessors of real property and buildings or parts thereof which constitute the property of the State Treasury or a local self-government authority. The tax base for the property tax in respect of land is its area, while for buildings and parts thereof it is the usable area; for structures, it is their value as established on 1 January of a tax year and which constitutes the basis for depreciation calculations in that year. The rate of the property tax is determined by a resolution adopted by individual communes. In respect of land, buildings and parts thereof, the rate is given in PLN and cannot exceed the limit established in statute. In turn, the tax rate for structures is proportional, and may not exceed 2% of their value. The municipal council may also differentiate tax rates for various objects of taxation, taking into account the type of commercial activity conducted, and it may also introduce additional exemptions.

In respect of prospecting, exploring and extracting shale gas, the property tax to which structures are subject will be assessed on devices, machines and installa-

¹⁷ Dziennik Ustaw of 2016, item 716.

tions used in the exploration and extraction of shale gas which are permanently fixed to the ground, located on the surface of the land, or under the surface of the land¹⁸. However, it is difficult to make a general determination as to the taxation of structures used in the exploration and extraction of shale gas under property tax regulations, as this will depend on the legal categorization of particular elements of well infrastructure as “structures” under Art. 1 paras. 1 and 2 of the Local Taxes and Fees Act.

In a judgment of 13 September 2011¹⁹, the Constitutional Tribunal held that subterranean mining infrastructure was not considered a construction object under the definition set forth in the Building Code of 7 July 1994²⁰, and by the same token, property tax cannot be assessed on it, neither as a separate structure nor jointly with other elements located within the same infrastructure. In the Tribunal’s opinion, structures located within mining pits – both open-top and underground – can have a property tax levied on them, on condition that they can be qualified: 1) as a structure associated with the conducting of commercial activity as defined by the Building Code, which is simultaneously understood as a structure under the Local Taxes and Fees Act, or 2) portions of structures associated with commercial activity as defined by the Building Code, which are simultaneously understood as structures under the Local Taxes and Fees Act. However, the Tribunal pointed out that in every tax matter concerning infrastructure located in underground mining excavations, it is necessary to determine precisely which objects and devices can be classified as structures under the Local Taxes and Fees Act. The Tribunal’s opinion is that, with consideration to the significant differentiation of objects and devices located within underground mining excavations, it is necessary to establish with precision whether particular objects and devices, combinations thereof, or the infrastructure in its entirety can be classified in accordance with the names of structures given in the Building Code.

¹⁸ A. Łaszczuk, M. Matyka, *Obecny system opodatkowania wydobycia węgłowodorów w Polsce z perspektywy jednostek samorządu terytorialnego* [in:] *Wpływ wydobycia gazu łupkowego na rozwój społeczno-ekonomiczny regionów – amerykańskie success story i potencjalne szanse dla Polski*, Raport Instytutu Kościuszki, Kraków 2012, pp. 96–97.

¹⁹ Case no. P 33/09 (www.trybunal.gov.pl).

²⁰ Dziennik Ustaw of 2016, item 290.

Conclusions

To summarize, the issue of taxation of prospecting, exploring and extraction of shale gas in Poland is an expression of the conflict between two values – on the one hand, the need to ensure the State Treasury receives its fair share of resource rents as the owner of underground natural resources, while on the other hand the desire to encourage enterprises through a favourable legal regime, including taxation regulations, to conduct extraction activity in Poland. How to resolve this conflict? We should not hesitate to agree with the position taken by the Presidium of the Polish Academy of Sciences, in accordance with which “at the present, still-initial phase of exploration for shale gas, the primary objective of state authorities in respect of the private sector, as well as Polish scientific institutions and higher education, should be to strongly encourage them using legal and financial means to engage actively in efforts aimed at quickly and accurately identifying the geological conditions for the possible presence of deposits, as well as to intensify work on technology that will reduce the costs of drilling and extraction. The primary objective should not be to raise (potentially illusory) tax revenue, but rather to ensure significant commercial extraction”²¹.

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²¹ *Stanowisko Prezydium Polskiej Akademii Nauk dotyczące gazu ziemnego znajdującego się w warstwach łupkowych (tzw. “gazu łupkowego”)*, Gospodarka Surowcami Mineralnymi 2014, 2, p. 9.

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