

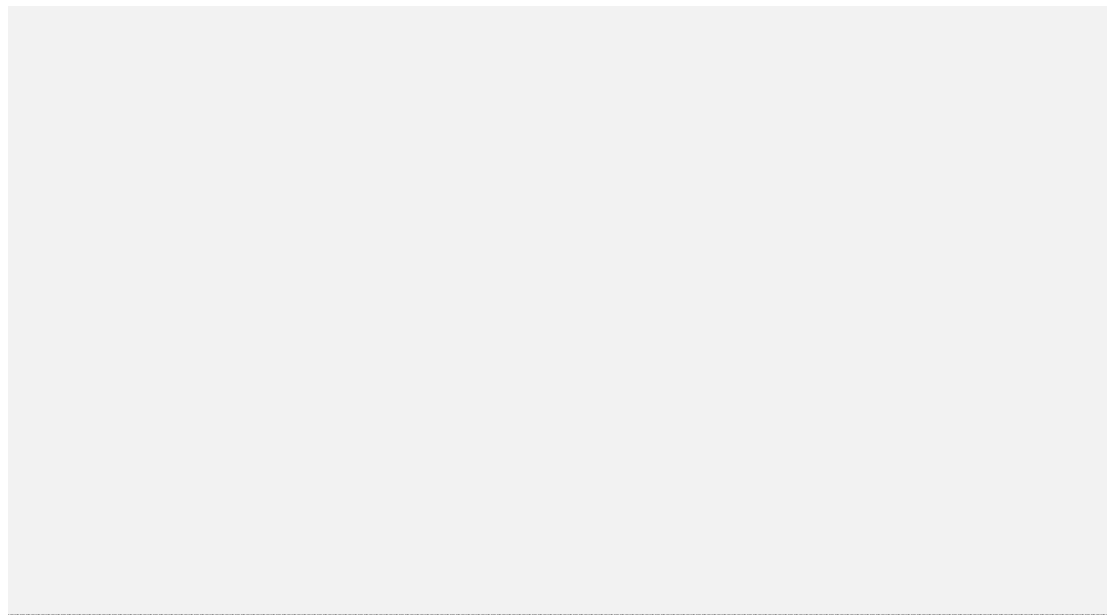


## GOVERNMENT OF ROMANIA

DEPARTMENT FOR INFRASTRUCTURE PROJECTS  
AND FOREIGN INVESTMENT

### **CONCESSION OF PERIMETERS AND NEGOTIATION OF THE CONDITIONS FOR THE PROJECTS CONCERNING EXTRACTION AND EXPLOITATION OF SHALE GAS**

- Presentation sheet-



## **1. GENERAL INFORMATION**

Under the domestic legislation, this type of resource is not subject to issuance of exploration or exploitation licenses by ANRM, but to execution of a 3-stage oil and gas agreement as follows: exploration, development and exploitation. Consequently, ANRM does not enter into any agreement with business undertakings concerning exploration and exploitation of the "shale gas" reserves, but into concession oil and gas agreements for exploration, development – exploitation or exploitation.

The first sub-stage is the one of the seismic and geological exploration, followed by the exploration, development-exploitation or exploitation stages. Once the ANRM's endorsement has been obtained, the business undertakings notify the competent environmental protection authority regarding its exploration or exploitation intention, as the case may be. Consequently, the environmental impact assessment studies can only be undertaken once the geological surveys and seismic explorations have been completed, that is to say during the exploration (deep-well drilling) and exploitation stages. According to the information supplied by ANRM, all research activities concerning gas clay (shale gas) in Romania are still in early stages and currently one cannot speak about any agreed method of recovering gas from clay rocks. The length of exploration stage, in case of oil and gas agreements, is about 5 years, and covers geological surveys, seismic prospecting and vertical testing, all aimed at spotting the hydrocarbons in the area under investigation. Investigation of the exploitation possibilities, which might include horizontal drilling or fluid fracturing, is a subsequent and distinct stage. The exploitation methodology is approved by ANRM based on a exploitation and reserve determination survey.

The Ministry of Large Projects (MLP) informed the subordinated authorities, namely ANPM, ARPM and APM, of the possibility for these projects to occur in Romania, as well as of the need to apply the *acquis communautaire* in order to regulate these projects. So far, no environmental impact assessment procedures for shale gas exploration/exploitation projects have been identified as opened with the territorial environmental authorities and, consequently, neither any environmental impact reports have been drafted in Romania, nor any regulatory instruments have been issued (in the form of environmental endorsements or agreements) for such works.

The MLP holds no documentations supporting authorization and licensing by ANRM of such explorations/exploitations in the area of city of Bârlad. The MLP has no authority in respect of drawing-up strategies/programmes regarding management of mineral resources, such as shale gas. Should such documents be issued or exploration or exploitation projects be initiated, the MLP shall apply the provisions of the Government Decision no. 1076 of 2004 on the environmental assessment for projects and

programmes, as well as of the Government Decision no. 445 of 2009 laying-down the framework procedure for the environmental impact assessment for certain public or private projects.

## **1.2 The oil and gas agreements with Chevron**

Order no. 179/27.10.2009, published in the Official Gazette no. 607 of 03.09.2009, provided for the commencement of the 10th Round/2009 of concession by means of a public call for offers for 30 oil and gas exploration, development and exploitation fields, among which EX-17 Costinești, EX-18 Vama Veche and EX-19 Adamclisi

Pursuant to the abovementioned Order, the interested Romanian or foreign legal entities were due to submit, within 120 business days since the publication date of the Order regarding the round organization in the Official Journal of the European Union, the offers in Romanian, containing the documents and information provided under art. 32-35 of the Methodological Rules for application of the Law of Oil no. 238/2004, as approved under the Government Decision no. 2075/2004, as subsequently amended and completed.

The announcement regarding the organization of the 10th Bidding Round in Romania was published in the Official Journal of the European Union no. C278-26 of 18.11.2009, the purpose of this round being, pursuant to art. 3, to conclude agreements for exploration and subsequent extraction of hydrocarbons in the 30 fields listed in the appendix to the Order.

As a result of this announcement, 21 Romanian and foreign companies submitted to ANRM 62 bids for 20 fields by the date of 19.05.2010, no bids being submitted for the remaining 10 fields.

The evaluation of the bids, determination of the winners, negotiation and signing of the oil and gas agreements were carried-out in accordance with the published procedure and were completed by mid 2011.

As many as 5 (five) oil and gas agreements were approved under Government Decisions in 2011, part of the 10th Round, and on 20 March this year the Government approved the three oil and gas agreements executed between ANRM and Chevron, the remaining 12 oil and gas agreements going through the re-endorsement procedure due to the governmental changes occurred.

The procedure for the public call for offers was transparent and opened to all Romanian and foreign companies who were willing to participate in this Round and, obviously, able to meet the conditions to be declared winners.

Given that the general objective of the Romanian energetic sector's strategy is to cover for the energy need in the present and in the long run, at the lowest possible price, as

adequate for a modern market economy and a civilized standard of living, under quality and supply security conditions and in observance of the principles of sustainable development, as well as that Romania has have a long tradition in the oil and gas industry, which brings along, besides certain undisputable advantages, also the disadvantage that an important part of the non-renewable oil and gas resources our country is credited with, have already been exploited, we considered that identification of new resources through exploration works and using cutting-edge exploration techniques is the only solution for Romania.

### **1.3 An overview of the debates in the EU**

In Europe, exploration and exploitation of the non-conventional fossil fuels, in particular shale gas, has recently become a topic of debate. The Heads of States and Governments in the European Union agreed, in February 2011, that there was a need to evaluate the potential of Europe in respect of extraction and sustainable use of the resources of non-conventional fossil fuels, including shale gas.

The European Commission appreciates, in the letter sent on 12 December 2011 by the Directorate General for Environment to all the members of the European Commission and to the Group of National Experts EIA/SEA, that "the projects concerning the non-conventional hydrocarbons involving the combine used of advanced technologies, such as horizontal drilling and high volume fluid fracturing, in particular the activities in connection with exploration and exploitation of shale gas, are covered by the environmental legislation of the EU, starting with planning and until closing-down these activities."

It's known that the environmental legislation of the EU has been adequately transposed into the domestic Romanian legislation and any potential further specific regulations shall be taken-over in the national legislation too.

Romania is represented in the work group concerned about the environmental aspects of exploiting non-conventional fossil fuels, set-up in January 2012 part of DG – Environment of the European Commission by experts of the Ministry of Environment and Forest and the National Agency for Mineral Resources.

**In the draft resolution dated 30 March 2012 regarding the industrial, energetic and other issues of oil and gas production from clay rocks, the Committee for Industry, Research and Energy of the European Parliament indicated that:**

- the resources of oil and unconventional gas from clay rocks were insufficiently explored and the Member States were encouraged to continue assessing the potential in respect of the production and sustainable use thereof
- given the experience triggered by the booming entry of the shale gas on the US market, the role of this gas on the energy market was thus acknowledged in terms of

enhancing the competition between various forms (including LNG) and the impact on prices

- it acknowledged the crucial role the shale gas production plays at global level in achieving energy security and reducing the dependency of the EU Member States of the imports of natural gas from third countries
  - it underlined the fact the complete, interconnected and integrated operation of the internal EU energy market is essential and urged the Commission and the Member States to continue pursuing attainment of this objective, including through the potential production on non-conventional gas (shale gas)
  - it shared the opinion that the production of shale gas in the EU would make a contribution to attainment of the EU's objective of reducing the emissions of greenhouse gas by 80-95% by 2050, compared to 1990, the reference year for the road map for energy by 2050
  - it urged the Commission to assess the potential economic benefits of the shale gas production, including in respect of employment;
  - the climate change and energy policy of the EU must break down the barriers in the way of investing in shale gas extraction
  - it called upon the Member States to make sure they put in place the adequate administrative framework for development of shale gas production activities
  - it found that the authorization procedure for production of shale gas was regulated under the oil and mining legislation and assessed this regulatory framework of the EU as appropriate for early exploration
  - it recognized that more emphasis should be placed on a transparent and open dialogue with the civil society, relying on the available scientific evidence
  - it underlined the importance of applying the available state-of-the-art technologies and best operational practices in the production of bituminous shale gas and continuously improving such technologies
- it called for the exchange of good practices and information between the EU and the US, in particular; it encouraged association of European and US cities where shale gas was found; it underlined the importance of the transfer of knowledge from the industry to the local communities.

## 2. PROJECT DESCRIPTION

### Current situation

Overview of the concession oil and gas agreements under which the holders have expressed their intention to explore the potential of oil in the relevant areas, in general, and of natural gas in the gas clay, in particular

#### 1. Concession oil and gas agreements for exploration, development and production under performance

N o.	Round	Company	Perimeter	Schedule of the works to be performed	Status	
1.	V	<b>Chevron România Exploration and Production SRL</b>	<b>E V-2 BÂRLAD</b>	- seismic acquisition 2D 200km - interpretation of the available data - digging of a well of 2,500 m.	<b>Additional perform extending the initial exploration period</b> <b>01.09.2010- 01.03.2013</b>	Suspended as of 26.04.2012
2.	X		<b>EX - 19 ĂDAMCLISI</b>	- seismic acquisition 2D- 300km - geochemical survey of core samples	<b>Exploration – 2 years</b> <b>28.03.2012- 28.03.2014</b>	Suspended as of 26.04.2012
3.	X		<b>EX – 17 COSTINEȘTI</b>	- seismic acquisition 2D- 300km - geochemical survey of core samples	<b>Exploration – 2 years</b> <b>28.03.2012- 28.03.2014</b>	Suspended as of 26.04.2012
4.	X		<b>EX – 18 VAMA VECHE</b>	- seismic acquisition 2D- 500km - geochemical survey of core	<b>Exploration – 2 years</b> <b>28.03.2012- 28.03.2014</b>	Suspended as of 26.04.2012

				samples		
5.	<b>III</b>	- <b>Midia Resources 50%</b> - <b>Transatlantic Worldwide România 50%</b>	<b>E III– 7 Craiova Sud</b>	- Seismic acquisition 2D -200 km - Digging of a well of 2,000 m	<b>2nd optional exploration stage -2 years</b>  <b>16.12.2012- 15.12.2013</b>	

## 2. Oil and gas agreements for exploration, development and production under endorsement

No	Round	Company	Perimeter	Status	
				Signed	Currently
1.	X	MOL HUNGARIAN OIL, GAS PLC și EXPERT PETROLEUM SRL	<b>EX - 1 VOIVOZI</b> <i>NON-CONVENTIONAL GAS SURVEYS</i>	MECMA, MMP, MFP, MJ, MTI <b>Re-endorsement</b>	Returned to ANRM on 22.10.2012 without MMP endorsement
2.	X		<b>EX - 5 ADEA</b> <i>NON-CONVENTIONAL GAS SURVEYS</i>	MECMA, MMP MFP, MJ <b>Re-endorsement</b>	Returned to ANRM on 22.10.2012 without MMP endorsement
3.	<b>X</b>	<b>EAST WEST PETROLEUM</b>	<b>EX – 7 PERIAM</b> <i>DIGGING OF 1 WELL AT 2,400 m (and non-conventional gas)</i>	<b>MECMA, MMP, MFP, MJ, MTI</b> <b>Re-endorsement</b>	Returned to ANRM on 22.10.2012 without MMP endorsement
4	<b>X</b>		<b>EX – 8 BILED</b> <i>DIGGING OF 1 WELL AT 2,200 m (and non-conventional gas)</i>	<b>MECMA, MMP, MFP, MJ, MTI</b> <b>Re-endorsement</b>	Returned to ANRM on 22.10.2012 without MMP endorsement
5.	<b>X</b>		<b>EX - 3 BĂILE FELIX</b> <i>DIGGING OF 1 WELL AT 1,800 m (and non-conventional gas)</i>	<b>MECMA, MMP, MFP, MJ, MTI</b> <b>Re-endorsement</b>	Returned to ANRM on 22.10.2012 without MMP endorsement

