Energy Policy 88 (2016) 131–137

Contents lists available at ScienceDirect

Energy Policy

journal homepage: www.elsevier.com/locate/enpol

Upstream Petroleum Law and activities in Turkey

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HIGHLIGHTS

- New Turkish Petroleum Law has been introduced in 2013.
- Turkey has the highest drilling activity in Europe, considering rig counts in 2014.
- Turkey's third production peak may rise from unconventional resources or offshore.

ARTICLE INFO

Article history:
Received 19 July 2015
Received in revised form
15 October 2015
Accepted 17 October 2015
Available online 26 October 2015

Keywords:
Upstream
Turkish Petroleum Law
Energy

ABSTRACT

The new Turkish Petroleum Law has been introduced in 2013. The legislations and incentives regarding the new law are explained and the upstream petroleum sector of Turkey has been evaluated in all aspects, in this paper. The historical development of the industry together with the related law in Turkey is also discussed. The important points in the law about the investment guarantee, exploration license, production lease, royalty payment, foreign staff status, incentives and etc. are mentioned in detail. The overview, background and present condition of the Turkish upstream industry are analyzed with statistical data and with forecasts. The outlook of the drilling and production activities along with the geological and geophysical studies in Turkey is presented. The potential hydrocarbon areas in Turkey are mentioned beside the regulatory. It is expected that the exploration activities in Turkey will increase as the consequence of the new law. Remarkable discoveries are expected from offshore and/or unconventional activities.

1. Introduction

The structure of this article is as follows: Section 2 reviews the remarkable points of the Petroleum law. Section 3 includes statistical information and details of exploration and production activities about the upstream petroleum sector of Turkey. The discussion of the results is the subject of Section 4. Finally, Section 5 concludes the subject and makes some suggestions for the future studies.

The petroleum industry is still keeping its popularity today. It is one of the most important and widely discussed topics in organizations worldwide. The petroleum sector is composed of three major divisions: upstream, midstream and downstream. The upstream sector is composed of the exploration, drilling and production activities differing from the midstream and downstream sectors that include the transportation, storage, processing, refinery and the marketing stages. The upstream oil sector has been very active during the last decade due to the rising oil prices and technological development.

The governments periodically publish new regulations to meet the needs of developing sector. A new law has been introduced by the Turkish government in 2013 to follow the trend of the sector, especially for shale oil & gas activities. The new law has been approved on 30/05/2013 by The Grand National Assembly of Turkey and has become effective as of the date of 11/06/2013 with the law number "6491" upon being published in the Official Gazette of Turkey. The implementing regulation of Turkish Petroleum Law has also been published on 22/01/2014 at the Official Gazette by the Ministry of Energy and Natural Resources of Turkey. The objective of this regulation is to regulate the procedures and principles related with the implementation of the Turkish Petroleum Law which includes 29 articles. The implementing regulation has 53 articles. The Turkish and English version of the law and implementing regulation can be accessed at the web site of The General Directorate of Petroleum Affairs (GDPA): www.pigm.gov.tr.

There is still very limited publication about the upstream oil sector of Turkey in the literature. Aydin and Acar (2011) have evaluated the effects of oil price on the Turkish economy and Turkish oil sector. They have concluded that the exploration activities may increase in the Black Sea and Mediterranean Region, despite the negative effects of high oil prices on Turkish economy.

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http://dx.doi.org/10.1016/j.enpol.2015.10.022
0301-4215/

Aydin (2012) has given statistical information about Turkish upstream sector from an economical and the legal point of view. He has mentioned that the evolution of Turkish upstream sector depends on a new regime of fiscal incentives. For the overall purpose of this study, not only the information about upstream petroleum activities of Turkey is given, but also the summary of the new Turkish Petroleum Law has been discussed.

The old Turkish Petroleum Law, a liberal law of its enactment date, had been introduced in 1954. The law regulated the upstream, midstream and downstream petroleum activities, in general opening them to domestic and foreign private companies. Turkish Oil Corporation (TPAO) had been established and assigned for exploration & production activities on behalf of the State. Downstream activities handled separately in the Petroleum Law had been arranged within the Oil and Natural Gas Market Laws since 2001. As a result, old Petroleum Law, consisting of 139 articles, has lost its applicability and it contradicted to several existing regulations (fiscal regime, custom regime, tax etc.) due to changing conditions in time. It had been valid until 2013 with some minor changes.

Historical development of the old law had shown fluctuations. It had been affected by political winds during the legislation period. Sometimes, alterations had been issued as forced by nationalist winds like those in the period of 1974–1984 (when Cyprus war was followed by an embargo on Turkey's fuel imports). Sometimes, liberal changes had been underway due to the encouraging winds of 1950–1960 and 1980's.

The new "Turkish Petroleum Law" which provides many incentives and implementations, has been introduced in 2013. The purpose of new law is to provide a competitive, transparent, equal, reliable and stable environment for investors. The General Directorate of Petroleum Affairs (GDPA) which is in charge of implementing the law is a sub-division of the Ministry of Energy and Natural Resources in Turkey. The Directorate has been established in 1954 to grant licenses, direct, supervise and audit in the upstream and downstream sectors as a government authority. After 2001, GDPA has become the responsible authority only for the upstream petroleum sector.

It is obvious that the Petroleum Law of each country is shaped to base on the hydrocarbon potential and geological structure of the country. Because Turkey has relatively low hydrocarbon potential and challenging geological conditions in the region, the new Petroleum Law has been formed as an incentive and attraction medium. As a result, the new law is believed to accelerate the upstream activities by attracting the domestic and foreign investors, international oil companies. The upstream petroleum activities of Turkey are mostly performed by the national oil company, Turkish Oil Corporation (TPAO), up to now since 1954.

2. Overview of the new Turkish Petroleum Law

In this section, main parts of the new Turkish Petroleum Law are reviewed. Regulations, incentives, restrictions and other issues regarding the law are briefly discussed.

2.1. Investment guarantee

The oil company has to pay some investment guarantee in accordance with the new law. This is 2% for onshore drillings and 1% for offshore drillings, of the portion of the turnover stated in the investment program of the drilling activity. By this practice it is aimed to overcome speculations caused by some third parties involved in the process just for license trade, so that the real entrepreneurs may take part in the sector and make more competitive investments. The amount of the investment guarantee for underexplored blocks or unconventional resources might be reduced by Ministry of Energy and Natural Resources depending on the investment program.

2.2. Exploration license

The borders and sizes of the territories covered in exploration licenses are designed according to international geographical grid system to provide suitable maintenance of records and well-organized upstream sector. License boundaries are based on map sizes. Maximum size is set for the 1/50,000 scaled sheet (average 56,000 hectares) and minimum size is set for the 1/25,000 scaled sheet (average 15,000 hectares). There are some other conditions. The 1/50,000 scaled sheet must cover onshore activities and territorial waters. For the offshore work in exclusive economic zone, maximum license boundaries of the area are extended by 1° both in latitude and longitude (to cover average 1 million hectares). The minimum size to be encountered in the license in such zones will fit a 1/100,000 scaled sheet on condition that the area stays within the limits of 1° extension (to cover 250,000 hectares in the average).

The schematic view of license application map can be seen in Fig. 1 (GDPA, 2015). Green squares and red squares on the map show the exploration application areas on the land and offshore areas, respectively. Blue lines indicate the exclusive economic zone in the Black Sea. There is an agreement between Turkey, Russia, Ukraine, Romania, Georgia and Bulgaria regarding the Black Sea borders.

There is still no consensus on the exclusive economic zones of the Mediterranean Sea between Turkey, Greece, Israel, Northern Cyprus, Southern Cyprus, Palestine, Egypt, Libya, Lebanon, Syria and of the Aegean Sea between Turkey and Greece. This fact also affects the exploration activities in these areas, especially in the Mediterranean Sea which is considered to include potential hydrocarbon deposits.

The black dots in the map shows the locations of wells drilled. It is clear in Fig. 1 that the drilling and production operations are concentrated on two regions of Turkey. The north-west part of Turkey, called Thrace Basin, hosts mostly natural gas activities; on the other hand, crude oil activities are mostly at the south-east part of Turkey (South Eastern Anatolian Basin).

The validity term of licenses has been set 5 years for onshore and 8 years for offshore cases in order to give sufficient time for exploration or drilling activities. Onshore license term can be extended twice each for duration of 2 years. Offshore license term can also be extended twice each for 3 years. In case of hydrocarbon discovery, licenses can be extended for another 2 years in order to provide for commercial evaluation.

2.3. Production lease

In case of an oil discovery within the scope of the exploration license, production lease is granted to the license holder. Production leases are granted for a 20-years period and can be extended twice, each for 10 years, depending on the productivity performance of the operation field. The border and size of the leases are similar to that of exploration licenses mentioned before.

2.4. Royalty

1/8 (12.50%) royalty is to be redeemed, based on monthly oil and natural gas production. The royalty calculation basis is the 'market price' for crude oil and 'wholesale price' for natural gas. However, royalty does not cover the hydrocarbon quantity used for exploration and production activities of the oil company (e.g. enhanced oil recovery application or power generation at the field site).