

# LEBANON'S OIL AND GAS SECTOR



# THE LEBANESE PETROLEUM ADMINISTRATION

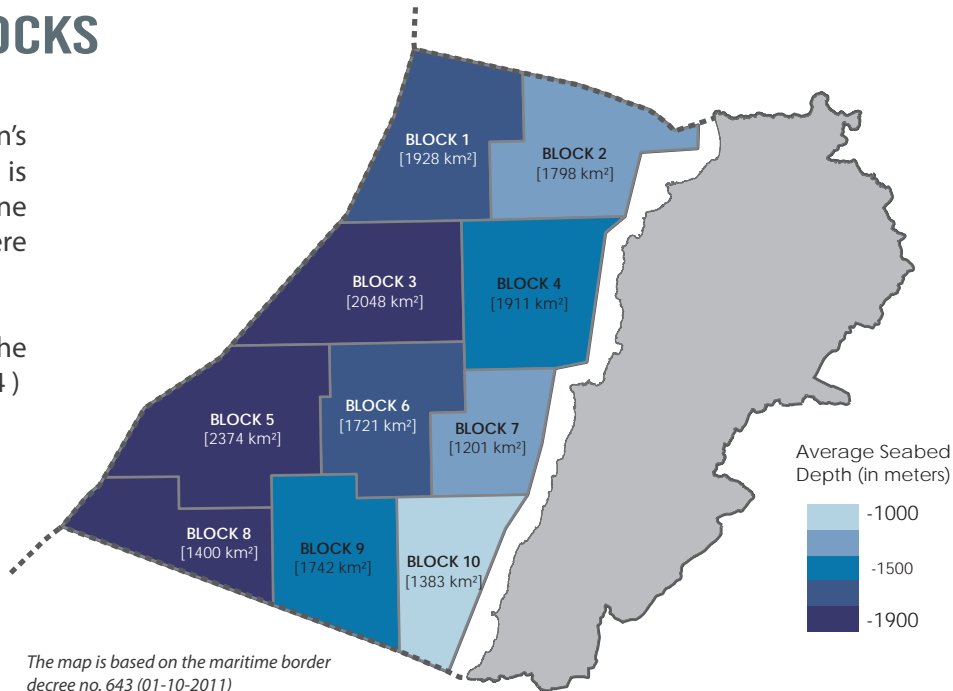
The Lebanese Petroleum Administration (LPA), established on December 4, 2012, is an autonomous public entity in charge of managing the petroleum sector in Lebanon. The principal objective of the LPA is to contribute to creating the greatest possible value for the economy and the society resulting from the activities undertaken in the oil and gas industry, while protecting the environment.

This is performed through prudent resource management and through strategic, economic, technical, geological, environmental and financial plans, programmes and activities conducted in cooperation with other governmental bodies, international organizations, academia and civil society. The LPA exerts all the necessary efforts to ensure a successful, transparent and sustainable development process in all stages of the petroleum activities, promoting continuous interest in Lebanon's hydrocarbon potential.

# LEBANON'S OFFSHORE BLOCKS

Ten blocks have been identified within Lebanon's Exclusive Economic Zone (EEZ). Their total area is 21,500 Km<sup>2</sup> (WGS 84) in addition to a buffer zone along the coast with an area of 1,200 Km<sup>2</sup> where petroleum activities are not allowed.

The area of the maritime waters subject to the Lebanese State jurisdiction is 22,700 Km<sup>2</sup> (WGS 84)



*The map is based on the maritime border decree no. 643 (01-10-2011)*

The blocks were delineated taking into account the following:

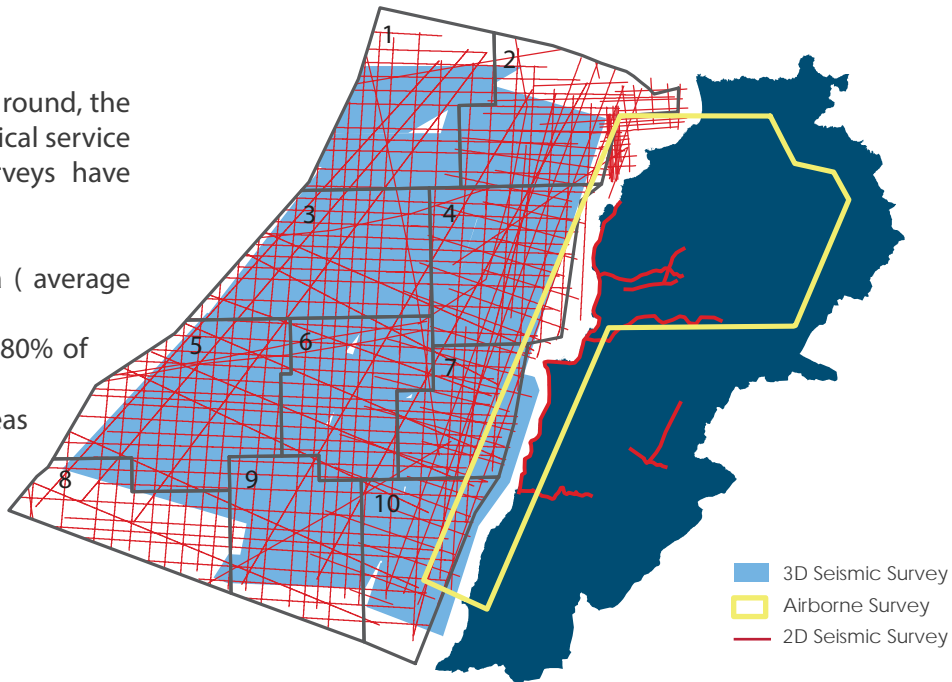
- The encountered types of plays
- The interpretation results of the 2D and 3D seismic surveys
- Projected economic value of each block
- Comparable attractiveness among all blocks
- Block size associated to the Probability Of Success ( POS of a discovery ) and exploration risks

# GEOPHYSICAL SURVEYS

In preparation for the launching of the first licensing round, the Ministry of Energy and Water have assigned geophysical service companies to perform seismic surveys. These surveys have covered the entire Lebanese offshore, including:

- 100% of the offshore covered by 2D seismic data ( average 3kmx3km grid )
- 70% of the offshore covered by 3D seismic data ( 80% of blocks area )
- 6000 Km2 of the onshore and offshore margin areas covered by airborne geophysical data ( gravity , magnetic , hyperspectral , radiometry and electromagnetic )

10,000 LKm of 2D and all available 3D data were interpreted showing well defined structural and stratigraphic traps regarded as prospective, particularly for natural gas.



# REGULATORY REGIME

Lebanon has put in place modern policy and regulations for the exploitation of offshore hydrocarbon resources. The Offshore Petroleum Resources Law No. 132 (24-08-2010) sets the foundations for ensuring prudent production of hydrocarbons, while providing long-term investment incentives, and a sustainable revenue management mechanism adopting the establishment of a Sovereign Wealth Fund.

The Petroleum Activities Regulations (PAR) governed by Decree No. 10289 (30-04-2013), includes 27 Application Decrees which provide legal, technical, commercial and QHSE regulations pursuant to conducting petroleum activities in Lebanon.

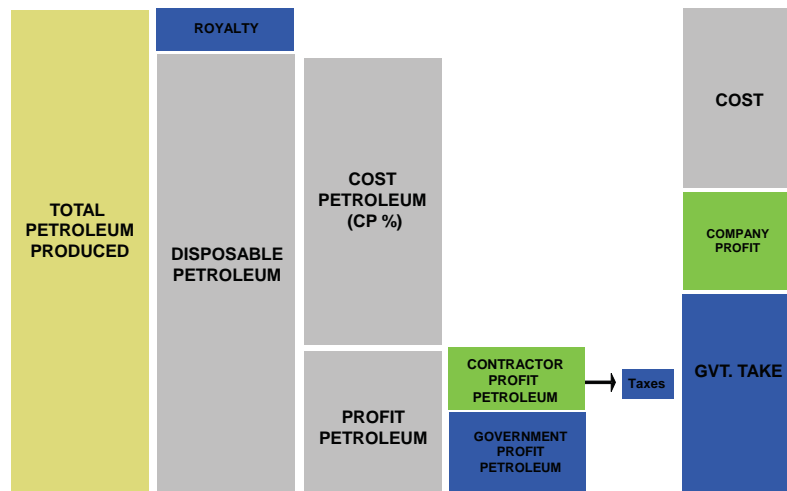
Law 132 adopted the production sharing and royalty system implemented through an Exploration and Production Agreement (EPA).



# FISCAL REGIME

The EPA constitutes an agreement between the State and pre-qualified oil companies. It provides the petroleum right holders the exclusive right to explore, develop and produce oil and gas in Lebanon's offshore Exclusive Economic Zone.

- The State retains the ownership of the natural resources
- The companies bare the exploration costs and the associated risks
- After a commercial discovery is made, profits are shared between the Right Holders and the State
- The total government take is composed of the government's share of profit petroleum, royalties and taxes
- A taxation law for petroleum activities is under preparation



*Lebanese Production Sharing Contract*

# ENVIRONMENTAL MANAGEMENT

The Government of Lebanon had carried out a Strategic Environmental Assessment (SEA) for the Offshore Petroleum Sector in Lebanon in 2012. The SEA has resulted in a number of recommendations to form an action plan for the next phases of work that the LPA is undertaking, including:

- Coordination and streamlining of processes between concerned parties
- Development of sector specific Health, Safety and Environmental (HSE) legislation guidelines and standards
- HSE baseline data management
- Emergency preparedness, response and contingency planning
- Technical support, training and capacity building
- Awareness raising and public outreach.





# NATIONAL ENERGY DEMAND

Power supply in Lebanon is suffering from shortages due to lack of additional power generation capacity, high fuel prices, and subsidies causing financial burdens. At the sectoral level, the energy bill is very high for the commercial, transportation, and the energy intensive industrial sectors causing un-competitiveness.

The prospective Lebanese gas will be a secure source for cleaner and relatively cheaper energy source that would contribute to alleviating electricity shortages and support recovering economic growth in Lebanon.

The estimated total energy demand and hydrocarbons' prospectivity show that the country's energy supply requirement for several years to come can be secured from indigenous gas resources.

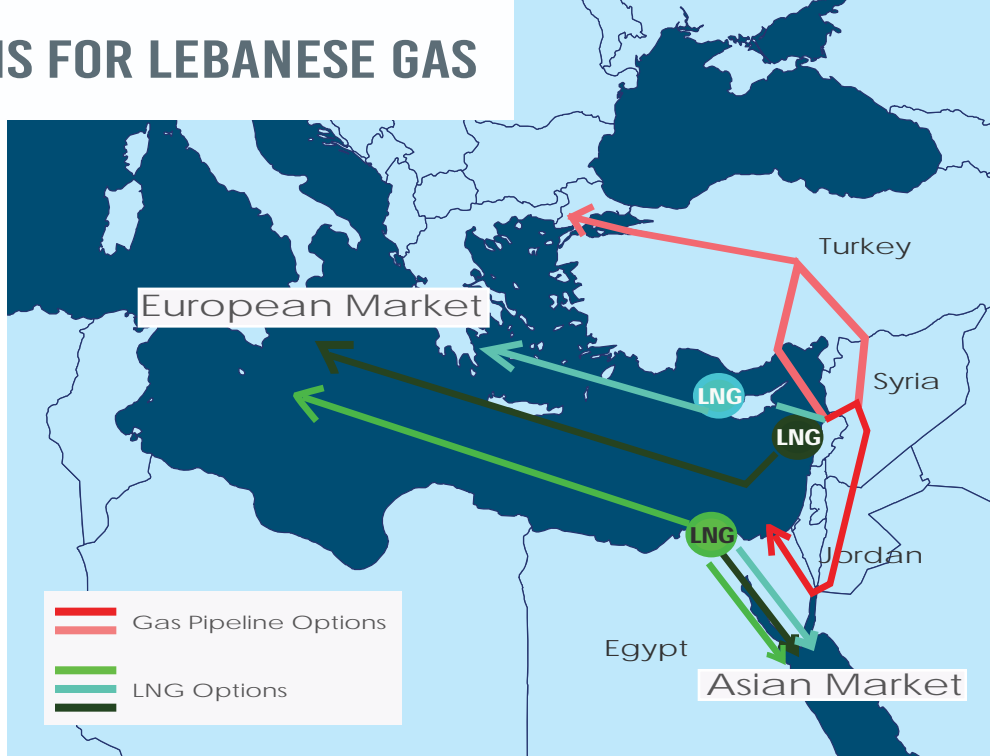


# POTENTIAL EXPORT OPTIONS FOR LEBANESE GAS

Lebanon is very well placed geographically to benefit from two export options for natural gas namely through existing and planned Gas Pipelines and Liquefied Natural Gas (LNG) Projects.

- Gas Pipeline Options: Lebanon is already connected to the Arab Gas Pipeline, to supply Syria, Jordan and Egypt. Lebanon may also supply Turkey through an onshore or offshore pipeline, and eventually reach the European market using the Turkish and the European networks.

- LNG Options: Depending on the size of the hydrocarbon resources to be discovered, Lebanon may use the existing or planned LNG plants in Lebanon or the region to supply European and Asian markets.



# THE WAY FORWARD

The Lebanese petroleum sector is to benefit local development not only from the prospective revenues, but also from the direct and indirect investments leading to the creation of productive economic activities and job opportunities.

The LPA will strive to:

- Advance exploration activities;
- Build local capacities to provide the needed workforce for the nascent petroleum industry;
- Build a Lebanese private sector that can serve the whole value chain of the petroleum industry;
- Expand cooperation programmes with international organizations, academia, vocational institutions, private sector, and civil society;
- Strengthen institutional capacities, accountability and transparency;
- Satisfy local energy demand;
- Secure wealth through gradual licensing and establishing a Sovereign Wealth Fund (SWF) for current and future generations





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