The Oil and Gas Sector in Lebanon – A Brief Introduction

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THE OIL AND GAS SECTOR IN LEBANON IN A BRIEF

❖ Lebanon is an importer of energy (98%)
❖ 2 oil pipelines
❖ 1 gas pipeline
❖ Two old refineries (not in service)
  ▪ The second one stopped working in 1992
❖ Tender to increase storage capacity in Lebanon
❖ Studies related to rehabilitating the refineries
❖ Tender for FSRUs to supply the electricity sector
❖ Studies on a coastal pipeline to feed the electricity plants and industries (connected to AGP)
THE EAST MED REGION WITNESSED INCREASED INTEREST AND ACTIVITIES IN THE LAST DECADE.
THE REGIONAL DEVELOPMENTS INCREASED THE INTEREST TO KICK-OFF THE SECTOR IN LEBANON.

Seismic surveys were acquired across the Lebanese EEZ based on multi-client contracts.

100% 2D Seismic Coverage
80% 3D Seismic Coverage
### WHERE DOES LEBANON STAND IN THE UPSTREAM SECTOR?

<table>
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<tr>
<th>Clear Policies</th>
<th>Enabling Laws &amp; Regulations</th>
<th>Licensing Process</th>
<th>Regulatory Agency</th>
<th>Success in 1st Bid Round</th>
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<td>Tender Protocol (TP)</td>
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<td>Petroleum Activities Regulations (PAR)</td>
<td>Exploration and Production Agreement (EPA)</td>
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THE GOVERNANCE STRUCTURE OF THE SECTOR IS MULTI-LAYERED.

**Line Ministries**
- Finance
- Environment
- Defense
- Interior
- Foreign Affairs
- Public Works
- Labor
- Public Health
- Economy

**Diagram**
- Public
- Parliament
- Council of Ministers
- Minister of Energy and Water
- Petroleum Administration
- Prof. Associations
- Academia
- Civil Society
- Private Sector
THE LEGISLATIVE FRAMEWORK PUT IN PLACEfollows the best practices in terms of transparency.

- Clarity in Legislation and Regulations
- Transparent System, Good Reporting Routines
- Isolation of Politics from Commercial Activities in the Sector
- Agreement and Contract Terms Fixed
- Open Competitive Licensing Process
- Prequalification Required for Participation in Bid Rounds
- Open Tenders for Large Acquisition Contracts
- Clear Accounting and Financial Procedures
- Multiple Monitoring Measures
- Metering Control
- Regulations on Health, Safety and Environment
- Well-established and Published Procedures

Right of Access to Information Law

Enhancing Transparency in the Petroleum Sector Law

Specific Terms in OPRL, PAR, TP and EPA
LEBANON ADOPTS A PRODUCTION SHARING CONTRACT WITH ROYALTIES AND TAXES.

**Fixed Terms**
- ROYALTY
- COST PETROLEUM
- CONTRACTOR SHARE OF PROFIT PETROLEUM
- CIT
- GVT. TAKE

**Biddable Terms**
- TOTAL PETROLEUM PRODUCED
- PROFIT PETROLEUM
- GOVERNMENT SHARE OF PROFIT PETROLEUM
- COMPANY PROFIT
THE HSE REGULATORY FRAMEWORK IS ALREADY IN PLACE.

**Offshore Petroleum Resources Law 132/2010**
- HSE Management Systems
- Monitoring & Supervision
- Auditing
- HSE Assessments & Plans
- EIA Studies
- Flaring & Venting
- Emergency Response Plans
- Safety Zones

**Petroleum Activities Regulations Decree 10289/2013**
- HSE Management Systems
- Hazard Assessment
- HSE Plans
- EIA Studies
- Risk Management
- Emergency Prep. & Response
- Safety Zones
- Protection of Personnel
- Working Environment
- Inspection & Auditing
- Investigation of Accidents

**Other relevant legal texts**
- Environmental Permitting (EIA, SEA...)
- Labor Law & HSE Organization & Inspection Decree
- Environmental Compliance Decree
- Maritime Regulations
- Penal Law
PRIMAR Y ENERGY CONSUMPTION BY SECTOR

Source: Customs Data
OVERALL, WE BELIEVE THAT THE ELECTRICITY SECTOR IS THE FIRST POTENTIAL LOCAL CUSTOMER OF NATURAL GAS.
Lebanon holds friendly relations with Syria, Turkey, Cyprus, Egypt, Jordan and the EU.

Lebanese Natural Gas can easily reach Syria, Jordan and Egypt through the Arab Gas Pipeline.

Turkey can be reached by an extension of the Arab Gas Pipeline or through a short offshore shallow water pipeline.

The EU markets can be reached through Turkey.

Lebanon can tie-in to any regional collaboration passing through Cyprus.

**Technical Offer**
- **Depth of exploration wells**: 4200 – 4400 m
- **Minimum no. of exploration wells**: 4 wells
- **Date of first drilling**: 2019

**Total Government Take %**
- **Block 4**: 65% / 71%
- **Block 9**: 55% / 63%

**Participating Interests**
- **Block 4**: 40%
- **Block 9**: 40%
- **Novatek**: 20%
A SECOND LICENSING ROUND IS PLANNED IN 2019 WITH THE FOLLOWING OBJECTIVES:

1. Accelerate Exploration Activities in the Lebanese Waters

2. Increase Attractiveness of the Lebanese Waters and Promote Competition
THE OIL AND GAS SECTOR IS FULL OF UNCERTAINTIES.

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<th>Technology</th>
<th>Prices</th>
<th>Volumes Discovered</th>
<th>Costs</th>
<th>Markets</th>
<th>Geopolitical Factors</th>
<th>Internal Politics</th>
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<tr>
<td>Seismic Technology</td>
<td>Low</td>
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<td>Oil and its Characteristics</td>
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<td>High</td>
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<td>Development Plans and Infrastructure</td>
<td>Low</td>
<td>Offshore processing</td>
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Planning should therefore be gradual and based on the wide understanding of scenarios.
PLANNING SHOULD THEREFORE CONSIDER SCENARIOS.

The Wheat Plain

The Salmon Farm

The Single Olive

The Caviar Box

Four scenarios based on two axes: prices and resources

High Resources

Low Resources

Low Prices

High Prices

Direct Effects

Direct Suppliers Effects

Indirect Suppliers Effects

Ripple Effects Model
KEY TAKEAWAYS

❖ The oil and gas sector in Lebanon is promising but uncertain.

❖ To capture its full benefits, sound strategies and proper decision-making processes should be put in place and maintained.

❖ The regional collaboration is of utmost importance to serve the complementary needs of the countries in the region and to optimize the use of the available infrastructure.