

# Prospects for Offshore Gas in Lebanon

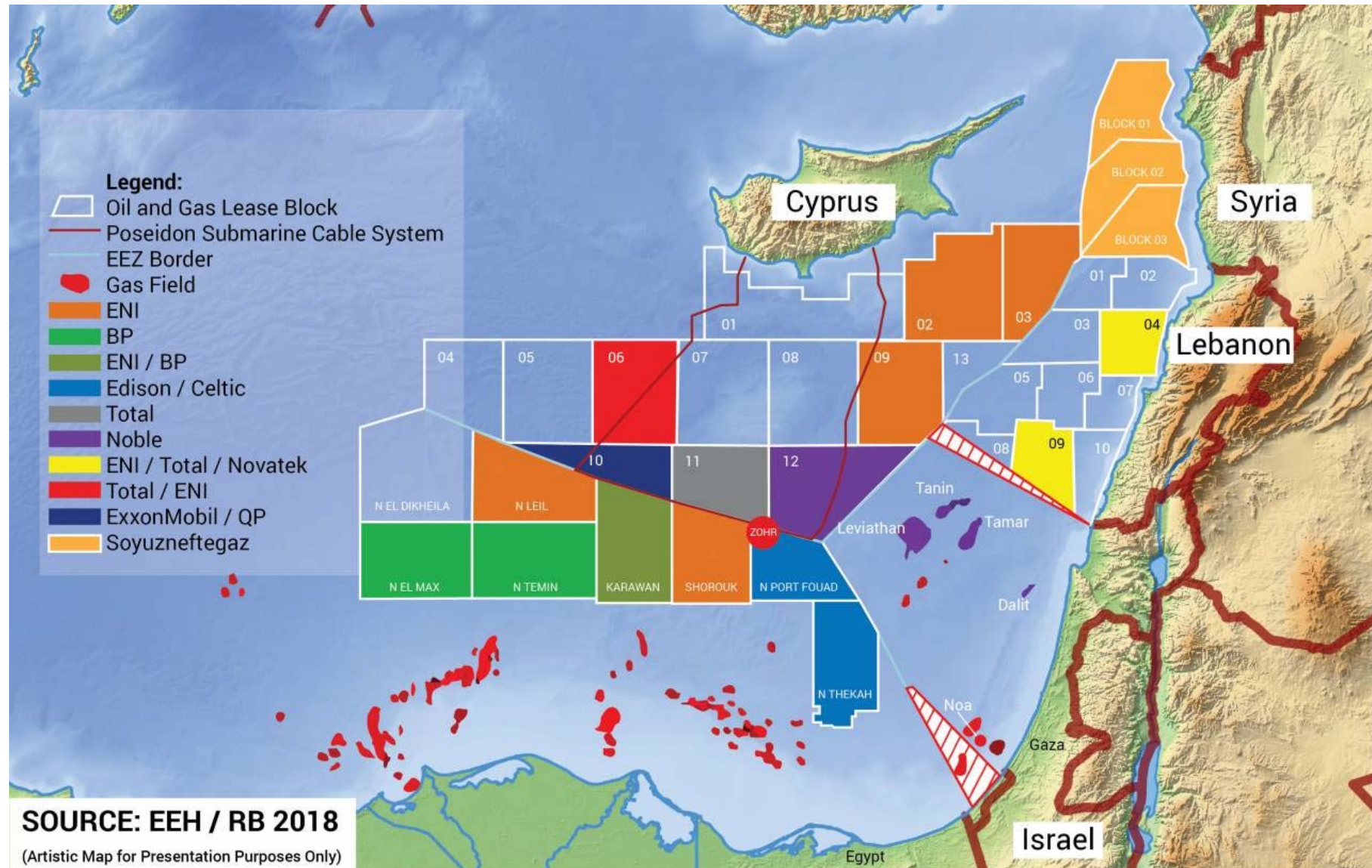
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Jessica Obeid

SPE London- Eastern Mediterranean Offshore Gas- June 27, 2018

**CHATHAM  
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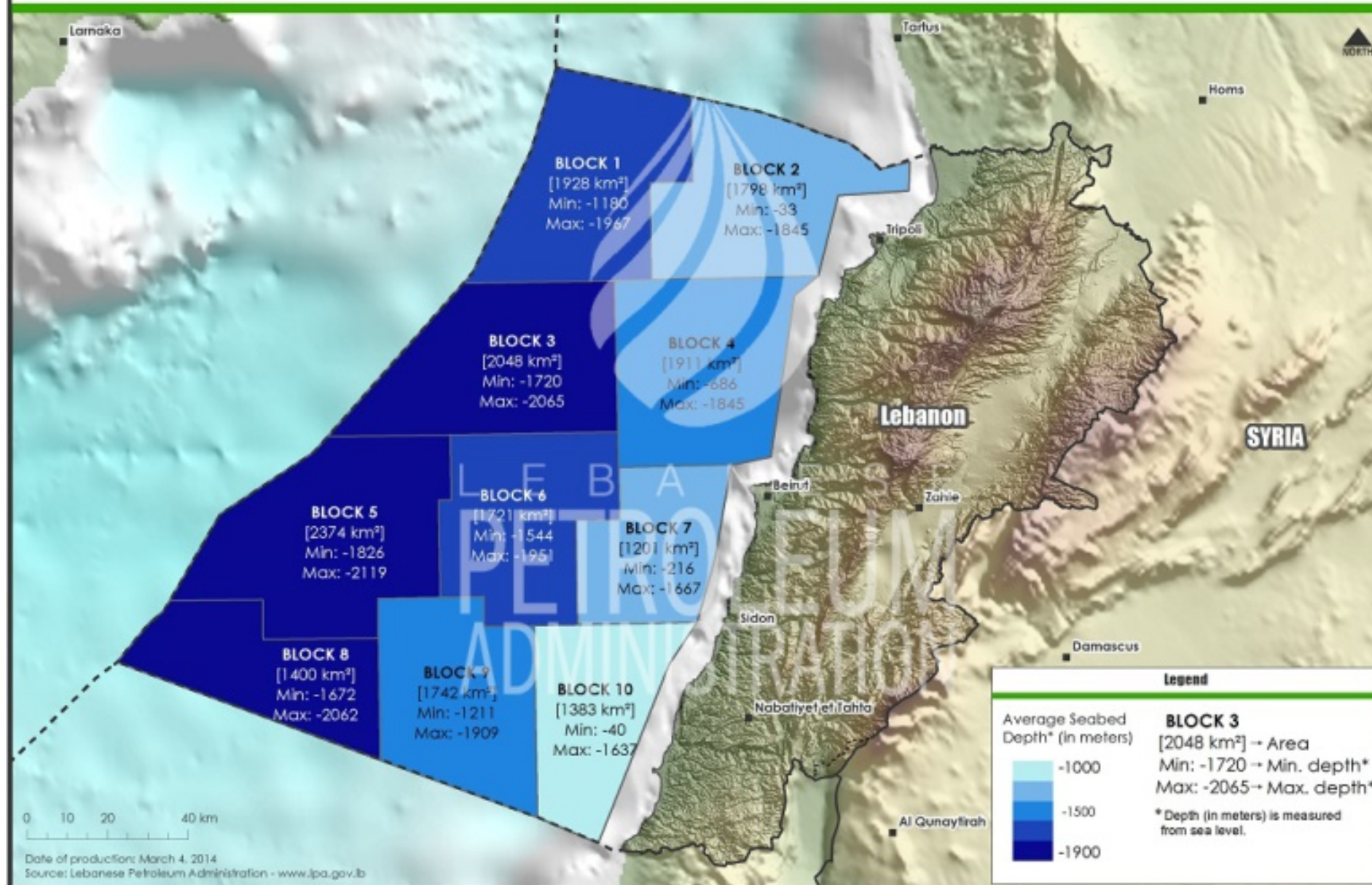
**2010 USGS estimates of the eastern Mediterranean area, (around 83,000 km<sup>2</sup>):**  
**1.7 billion barrels of recoverable oil**  
**122 trillion cubic feet of recoverable natural gas**

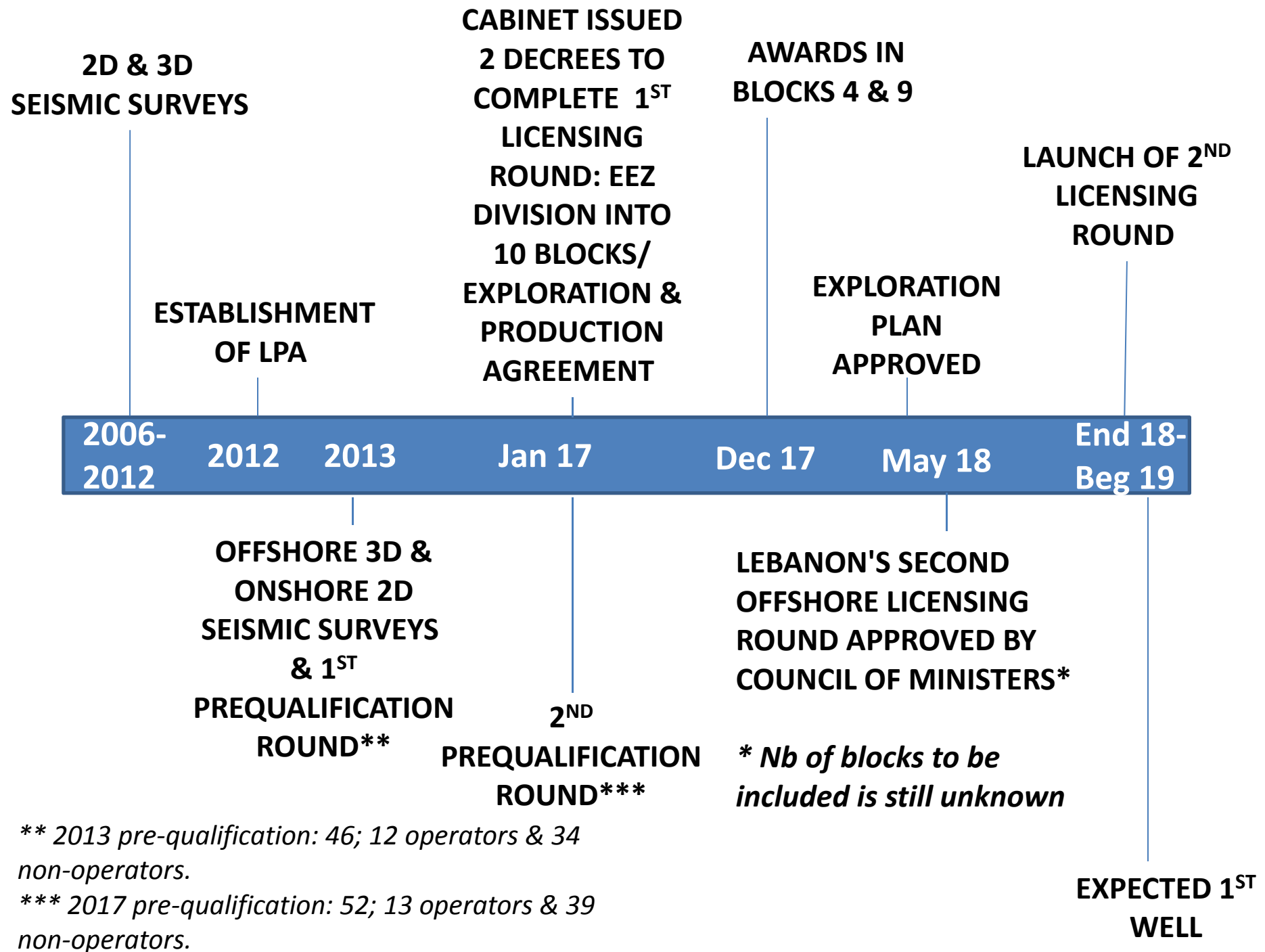


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- Lebanon attempted - & failed- 7 times in the period between 1947 & 1963 to find oil onshore.
  - The 1<sup>st</sup> offshore seismic survey was carried out in 1971, & was halted due to the civil war in 1975, & only resumed in 1993.
  - The sector picked up in 2010 was the parliament passed the Offshore Petroleum Resources Law, laying out the sector's framework.



# BLOCKS AREA AND SEABED DEPTH





- Commitment to drilling at least two wells at depth between 4200-4400 m.
- One well in the first 3 years.
- Priority: Bloc 4 in 2019.





## Five Blocks Open for Bidding

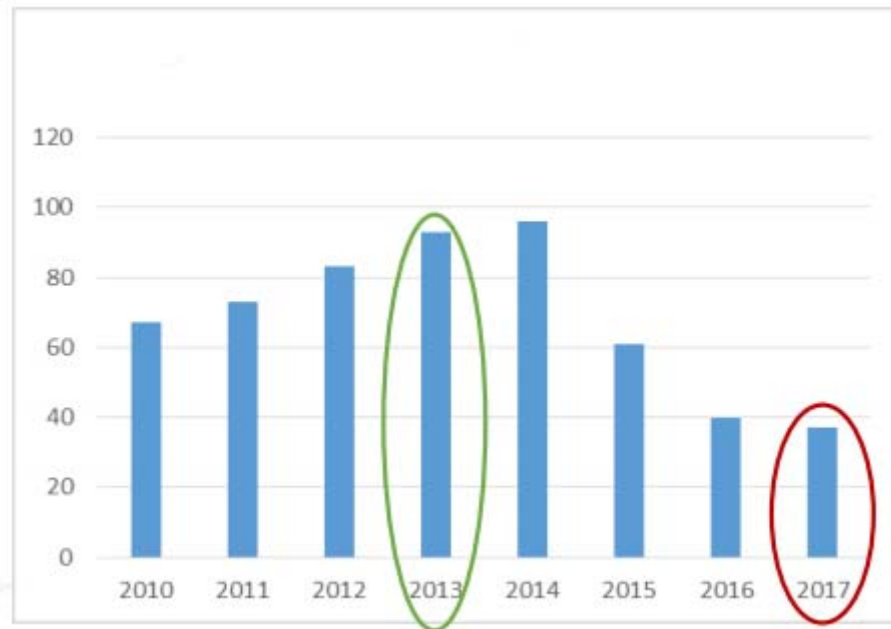


Based on the Lebanese Petroleum Administration's recommendation, the Minister of Energy and Water announced that blocks 1, 4, 8, 9 and 10 are open for bidding.

## Applicants/ Awardees

Operator: Total

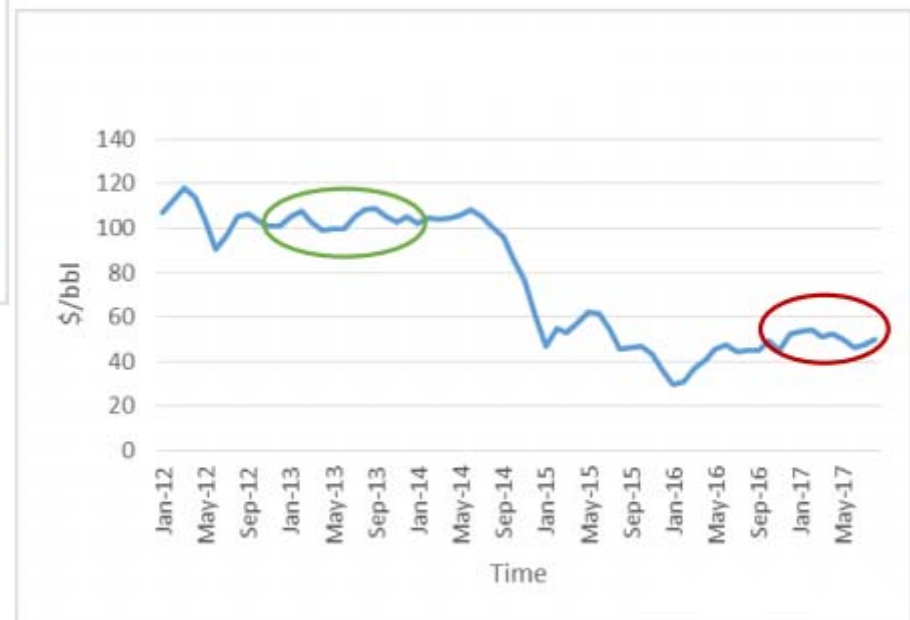
40%	40%	
		20%
<b>TOTAL</b>	<b>eni</b>	
		<b>NOVATEK</b>



Investments in Petroleum Exploration

Source: Wood Mackenzie

+ Lebanon's delays  
& increased risks



Change in Oil Prices

Source: World Bank



## Financial Management

Open market economy

Strong financial sector

Framework for fiscal management of hydrocarbons is still under preparation



## Environmental Management

Strategic Environmental Assessment (SEA) for the Offshore Petroleum Sector was carried out in 2012

Identified recommendations to form an action plan for the next phases of work

Detailed Environmental Impact Assessments to be carried out



# Lebanese Expectations



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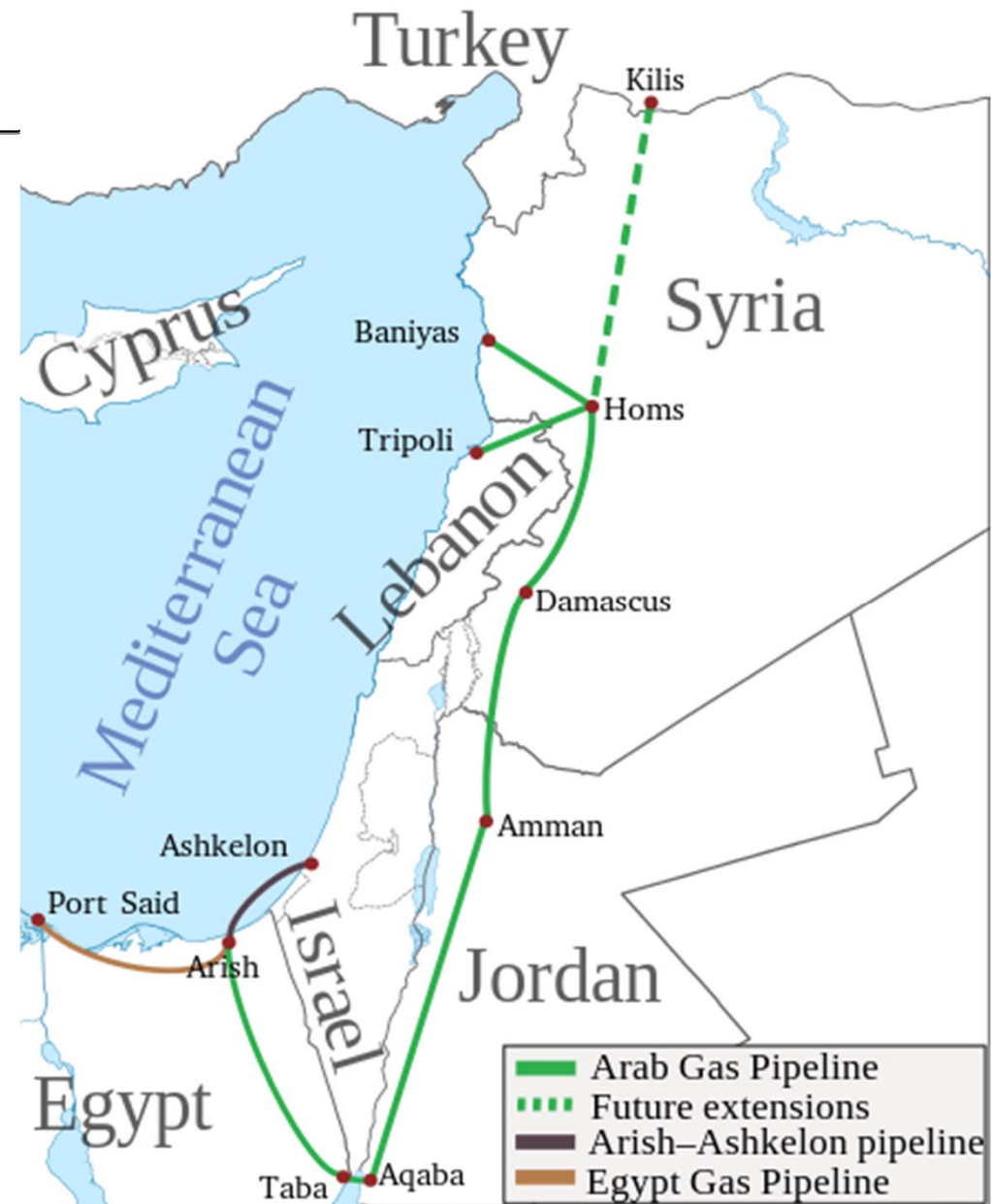
## Risks in Lebanon

- No discoveries yet
- Weak governance/ Subject to political control
- Geopolitical risks
- Commercial risks
- Maritime disputes; Lebanon doesn't have demarked EEZ

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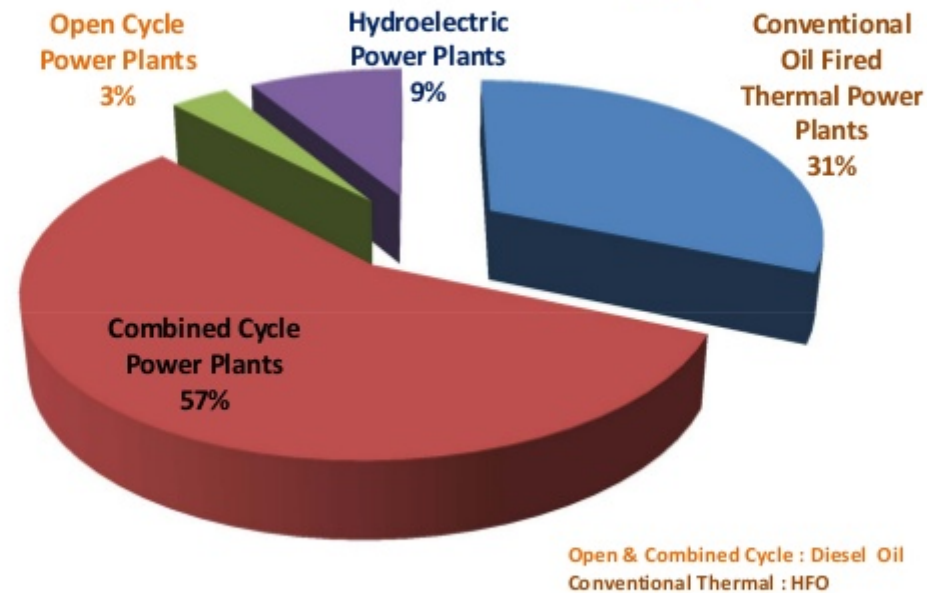
Prospects for Lebanese offshore gas & challenges facing each:

1. Domestic use
2. Arab Gas Pipeline
3. Other pipeline options/ LNG



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- Heavy dependent on fossil fuel imports, accounting for 15% of GDP
  - Estimated electricity demand: 32 TWh by 2030
  - 0.25 tcf needed for domestic use
  - 0.5 tcf by 2030
  - Estimates: 95 tcf at P50
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### Lebanon Current Energy Mix



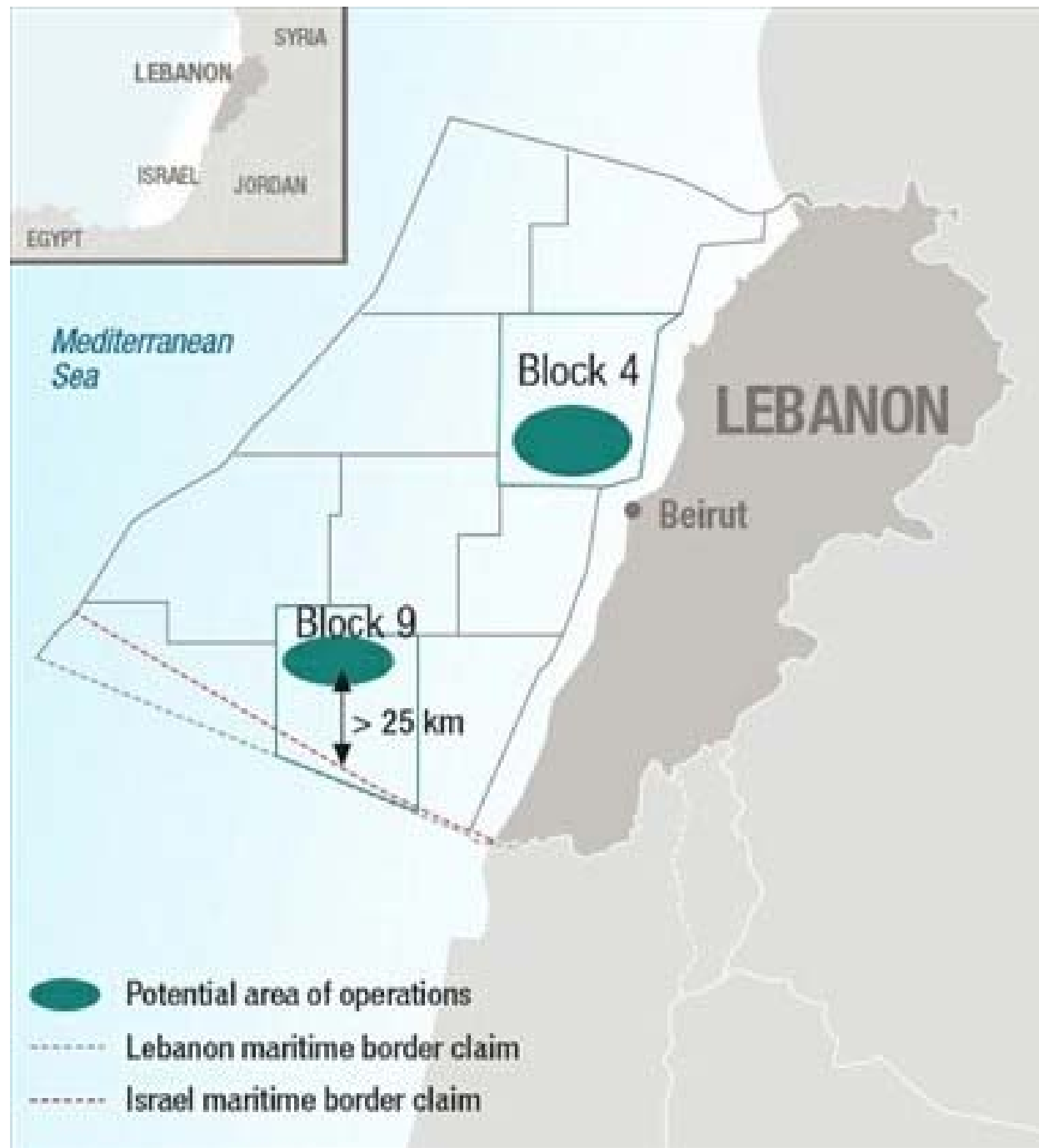
# Lebanon- Israel EEZ Dispute

1. Historical context
2. Legal context
3. Potential dispute resolution mechanisms

Disputed Area in Bloc 9:  
< 8% of the block's  
surface.

Main prospects located  
> 25km from the  
disputed area.

Consortium will not  
carry out exploration  
activities in the  
disputed area.





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## Future Opportunities in Lebanon:

- 2<sup>nd</sup> licensing round end of 2018/ beginning 2019
- New geology studies/ seismic surveys
- Data management/ Processing

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## Challenges facing Eastern Mediterranean Countries:

- Monopoly
- Delays
- Raising capital investments
- High cost of exploration in deep water
- Exports/ Transportation routes
- Commercializing gas, inability to justify the development of fields for small domestic prospects

Eastern Mediterranean...



None will make it on their  
own!

# Thank you

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