

A Glimpse into Lebanon's Future in Oil and Gas

Zonia H. Palacios¹, Charles Ross¹, Manar Nacer¹, Parag Goyal¹

¹S&P Global Limited

Abstract

Lebanon, nestled on the Mediterranean coast, has recently emerged as a promising player in the global oil and gas landscape. This abstract explores the prospective future of Lebanon's oil and gas sector, analyzing key factors such as neighboring field analogues, and potential development options that will shape its trajectory.

The discovery of major offshore fields over the last 15 years in neighboring countries such as Israel, Egypt and Cyprus has led to total discovered recoverable resources in the Mediterranean region increasing to around 144 trillion cubic feet of gas (Tcf), with significant upside exploration potential remaining. Development of these resources has transformed Israel from a net fossil fuel importer, to being self-sufficient and an exporter of natural gas.

Seismic surveys and exploratory drilling (Byblos-1 and Qana-1) conducted in Lebanon's offshore blocks has identified the potential for hydrocarbon reserves even though no positive results came from the exploratory wells.

Lebanon's increasing interest in oil and gas exploration has prompted a strategic examination of analogue reservoirs in Israel to gain valuable insights and assess the implications for the country's own potential. By studying Israel's reservoir characteristics and its geology, this abstract aims to evaluate the possibilities for a Lebanese hydrocarbon industry. This comparative analysis aims to offer a comprehensive understanding of the obstacles and opportunities that Lebanon may encounter in its pursuit of sustainable and responsible oil and gas exploration. If future exploration proves successful, prioritizing the domestic market emerges as the apparent development strategy for Lebanon. A key objective would be to replace expensive and inefficient fuel oil with gas in domestic power plants. Currently, only the Deir Ammar power plant in the far north can operate with natural gas. Southern power plants could transition to gas with changes. However, a significant challenge lies in the absence of gas pipelines in Lebanon, with only the Lebanese Gas Pipeline (GASYLE) connecting the Deir Ammar power plant to the Arab Gas Pipeline (AGP) in Syria. Export options pose challenges, with leveraging Israel's infrastructure seen as improbable due to political considerations. Lebanon's offshore exploration journey unfolds amid high expectations and multifaceted challenges, navigating economic, political, and infrastructural complexities. Success hinges not only on geological factors but on adeptly overcoming above-ground hurdles, highlighting the challenges of offshore endeavors in emerging energy markets. As global energy demands continue to rise, Lebanon's strategic location provides a significant advantage, offering a gateway for energy exports to both regional and international markets.

The country has experienced political and economic uncertainty that needs to be navigated for the sector to reach its full potential. The Lebanese authorities are attempting to establish transparent and investor friendly frameworks, working on licensing rounds, revenue sharing and environmental considerations.

In conclusion, this abstract provides a comprehensive overview of Lebanon's future in the oil and gas sector, and the associated inherent opportunities and challenges. By navigating the complexities and leveraging international partnerships, Lebanon has the potential to transform its energy landscape, fostering economic growth and contributing to regional energy security.