S&P Global
Ratings

RatingsDirect®

Research Update:

# Leviathan Bond Ltd. Affirmed At 'BB-' After Revised Project Finance Criteria; Outlook Remains Stable

**March 15, 2023**

## Rating Action Overview

- On Dec. 14, 2022, S&P Global Ratings published its revised criteria for rating project finance transactions, "General Project Finance Rating Methodology" and "Sector-Specific Project Finance Rating Methodology".
- We have completed our review of the issue ratings on Leviathan Bond Ltd. (Leviathan) under the new criteria.
- The revised criteria do not affect our view of the project's business or financial assessments.
- As a result, we affirmed our 'BB-' issue ratings and '1' recovery rating on the senior secured notes issued by Leviathan Bond Ltd.
- The stable outlook reflects our expectation that the project will successfully refinance or repay its Series A notes of $500 million by June 30, 2023. This is supported by our view of the project's ability to generate cash, its gas exports to Egypt and Jordan, and its solid operational performance.


PRIMARY CREDIT ANALYST

**Valeriia Kuznetsova**
London
+44 2071760864
valeriia.kuznetsova@spglobal.com

SECONDARY CONTACTS

**Pablo F Lutereau**
Madrid
+ 34 (914) 233204
pablo.lutereau@spglobal.com

**Gonzalo Cantabrana Fernandez**
Madrid
+ 34 91 389 6955
gonzalo.cantabrana@spglobal.com

**Ohad Movshovitz**
RAMAT-GAN
ohad.movshovitz@spglobal.com


## Project Description And Key Credit Factors

Discovered in 2010, Leviathan is an offshore gas field in the eastern Mediterranean and is the largest natural gas reserve in Israel. Situated offshore, approximately 120 kilometers (km) west of Haifa at a water depth of 1.7 km, it currently supplies gas to Israel, Egypt, and Jordan. According to a reserve report prepared by independent engineering consultant, Netherland, Sewell, & Associates Inc. (NSAI), the field had 1P reserves totaling 11,933.2 billion cubic feet (BCF) of gas and 26.3 million barrels (MMbbl) of condensate oil as of Sept. 30, 2022, and an annual capacity of 12 billion cubic meters (BCM).

Rights to explore and produce petroleum and gas in the Leviathan field were granted proportionately to NewMed Energy Ltd. (NewMed, formerly Delek Drilling; 45.34%), Chevron Mediterranean Ltd. (formerly Noble Energy Mediterranean; 39.66%), and Ratio Energies (formerly Ratio Oil Exploration; 15.00%) under a production lease until February 2044. This might be extended by up to an additional 20 years if the partners continue to produce from the field. The operations and associated infrastructure are defined under a joint operating agreement (JOA) among the three parties in their respective proportions of the lease. The field is operated by Chevron Mediterranean Ltd. under the terms defined in the lease and JOA.

Leviathan has long-term GSPAs under export contracts that account for about 70%-80% of gas production capacity under the 2P scenario (proved and probable reserves), while the remainder is supplied to energy producers in Israel. The contracts have a weighted-average length of 12 years.

## Strengths

- Leviathan has minimal resource risk, with 1P reserves sufficient to cover production capacity for over 30 years, according to information provided under an NSAI reserve report.
- An experienced and global player will undertake the asset's operations. Chevron Mediterranean has been operating a similar project in the adjacent field (Tamar) since 2013, which we view as credit positive. This underlines our view that Leviathan will maintain stable production and low operating costs (below 10% of revenue).

## Risks

- The rating is capped by our view of the creditworthiness of the rated GSPA offtakers.
- Despite a high contracted revenue base, we expect the project will remain exposed to market risk, which introduces some cash flow volatility. About 85% of gas sales benefits from long-term GSPA with minimum take-or-pay volumes at a fixed price, floor price, and escalating price depending on Brent or the domestic electricity production tariff (depending on the type of agreement). Nevertheless, because we assess the credit quality of only 40% of the contracted capacity, for the remaining 60% we assume that gas is sold in the merchant market throughout the project's life, making expected cash flows available for debt service more volatile throughout the debt's term.
- The bullet nature of the notes exposes the project to refinancing risk at every maturity, which is partially mitigated by cash reserving provisions. To ensure that sufficient funds are available, 12 months ahead of each amortization free cash flow from the revenue account is allocated to a principal reserve fund to a maximum $150 million. In our view, the long life of 1P reserves provides a sufficient tail for refinancing the notes. As such, the exposure to refinancing risk in June 2023 ($500 million), June 2025 ($600 million), June 2027 ($600 million), and 2030 ($550 million) does not constrain our rating on the notes.
- Leviathan can issue additional debt subject to several conditions, which include maintaining net present value at a 10% forward discount (NPV10) to net debt above 1.5x.
- A default by NewMed under the JOA might interrupt cash flows to the project if not rectified. We assess this risk as remote because our base- and downside-case scenarios consider that NewMed has already performed all required payments in respect of the project's current stage of development and does not have any material outstanding liabilities.

# Rating Action Rationale

**Our revised project finance criteria do not affect our view of Leviathan Bond Ltd.'s creditworthiness.** On Dec. 14, 2022, S&P Global Ratings published its revised criteria for project finance transactions, "General Project Finance Methodology" and "Sector-Specific Project

Finance Rating Methodology". The revised criteria do not affect our view of the project's business or financial assessments.

**Leviathan achieved stable gas sales and solid operational performance in 2022.** According to the latest NSAI report from January 2023, Leviathan sold about 11.4 BCM of natural gas during full-year 2022, which is higher than our expected 8.84 BCM (1P reserves) for 2022. The reported average selling gas price also remained high during 2022: Q1 was $5.67 per metric million British thermal units (MMBTU), Q2 $6.50/MMBTU, Q3 $6.56/MMBTU. According to the NSAI report, cash flow generation in 2023 is expected to be around $570 million under 1P and $635 million under 2P.

**The project's liquidity supports its ability to repay $500 million notes maturing on June 30, 2023.** Leviathan benefits from a cash-funded $100 million debt repayment fund and the principal reserve fund, which is already funded to its maximum of $150 million. Leviathan also had about $14 million in cash in its operational accounts as of Jan. 31, 2023. The Project's expected cash generation in 2023, together with its existing liquidity levels, support our view that Leviathan would be able to repay the upcoming bullet payment even without refinancing. Nevertheless, to date we have not revised our assumptions on refinancing because the company could still decide to go to the market and refinance the upcoming maturity. We acknowledge that NewMed has purchased around $100 million of bonds issued by Leviathan maturing in June 2023, although we do not factor this into our issue rating because the amount of Leviathan's total debt outstanding has not changed.

**Exposure to gas sales in Egypt and Jordan are key to Leviathan's creditworthiness.** Unlike for its direct peer, Energean Israel Finance Ltd. (BB-/Stable), we view these markets as key to Leviathan's economic feasibility because we understand that the project cannot switch its gas supply to other countries. Israel became a gas exporter when Leviathan started operating and--absent a material increase in local demand, which would take years--it could not absorb the gas that Leviathan currently sells to Egypt and Jordan. Israel does not have liquefaction plants to export gas directly and the current pipeline networks only connect Israel with Egypt and Jordan. We currently expect Leviathan to sell about 45% of its gas in Egypt (B/Stable/B), 30%-35% in Jordan (B+/Stable/B), and the remaining 20%-25% in Israel (AA-/Stable/A-1+).

## Outlook

The stable outlook reflects our assessment that the project will successfully refinance or repay its Series A notes of $500 million by June 30, 2023. This is supported by our view of the project's ability to generate cash, its stable gas exports to Egypt and Jordan, and its solid operational performance. Given the bullet nature of the notes, we expect the project to generate debt service coverage ratios (DSCRs) above 1.4x going forward--our current forecast minimum DSCR is 1.70x. The stable outlook reflects our expectation of stable gas exports to Jordan and Egypt.

### Downside scenario

We could lower the rating under the following scenarios:

- If were to lower our view of the creditworthiness of the rated GSPA off-takers.
- If gas exports to Egypt and Jordan were not stable or were at risk of disruption.
- If operations experience production issues, resulting in reduced uptime and higher operating

costs that send the minimum DSCR below 1.4x. In addition, we could revise our gas price assumption if conditions in the oil and gas industry deteriorate, complicating the project's ability to sell its production capacity at favorable prices, leading to lower cash flows and higher refinancing risk.

- If the field's partners were to engage in aggressive expansion commitments. This could reduce the net cash flows for the repayment of the notes and result in extraordinary obligations for NewMed to pay its participating interest in related joint account expenses.

## Upside scenario

We view an upgrade as unlikely because it would require improved creditworthiness of the counterparties, which currently caps the rating. We could revise our SACP assessment upward if the project sells its remaining capacity to counterparties of stronger creditworthiness, reducing its market risk exposure and enhancing the blended-average credit quality of its revenue stream, which could reduce risks and bring the minimum DSCR toward 2.0x.

# Performance Update

**Leviathan continues to show a solid performance.** It delivered its first gas to the Israeli domestic market in December 2019 and has exported to Egypt and Jordan since it started operating. Operations have been stable and in line with expectations. Since May 2020 average monthly uptime has been comfortably above 99%.

Table 1

### Total Natural Gas Reserves (100%) In The Petroleum Asset (Gross)

| Scenario | Type | As of Dec. 31, 2019 | As of Dec. 31, 2020 | As of Dec. 31, 2021 | As of Sep. 30, 2022 |
|---|---|---|---|---|---|
| **1P** | | | | | |
| | Natural Gas BCF | 11,577.3 | 11,269.6 | 12,259.8 | 11,933.2 |
| | Condensate MMbbl | 20.8 | 24.8 | 27 | 26.3 |
| **Total 2P** | | | | | |
| | Natural Gas BCF | 13,486.2 | 13,087.6 | 13,395.9 | 13,079.3 |
| | Condensate MMbbl | 24.2 | 28.8 | 29.5 | 28.8 |

1P--Proved reserves. 2P--Proved and probable reserves. BCF--Billion cubic feet. MMbbl--million barrels.

# Base Case

## Assumptions

- Leviathan uncontracted gas price: $4.4 per MMBTU for 2023 onward.
- Leviathan uncontracted gas price: Prices under GSPAs with rated third parties modelled as per the terms of the GSPAs.
- Operations and maintenance (O&M) costs: In line with historical performance of the operator,

adjusted to U.S. inflation, including variable cost of $0.5 per MCF (thousand cubic feet) and opex around $80 million per year for 100% of the field.

- Capital expenditure (capex): Budgeted remaining capex around $100 million in 2023 to finalize the ongoing ramp-up of the field.
- Refinancing amount: We assume the refinancing of approximately 85% of the amounts due.
- Assumed cost of refinancing debt: Each bullet series at 200 bps higher spread, with an amortizing loan until Dec 31, 2044.

### Key metrics

- Minimum DSCR of 1.70x in 2023 and median DSCR until the final maturity of the refinancing period of 1.73x.

## Downside Case

### Assumptions

- Annual production: -10% compared to base case.
- Gas price: -10% compared to base case.
- O&M costs: +10% higher variable and fixed operating cost, including stress over insurance compared to base case.
- Availability of the field: -5% compared to base case
- Capex: +20% compared to base case.
- Assumed cost of refinancing debt: Each bullet series at 400 bps higher spread.

### Key metrics

- We assess the project's resilience in a stress case as moderate because Leviathan Bond Ltd. would be able to survive downside stress without depleting its liquidity and despite posting DSCRs below 1x.

## Rating Score Snapshot

### Operations phase SACP (senior debt)

- Asset class operating stability: 4
- Operations phase business assessment (OPBA): 8

## Preliminary operations phase SACP: bbb-

- Downside resiliency assessment and impact: Moderate (no impact)
- Median DSCR impact: Neutral
- Debt structure impact: -2 notches
- Liquidity impact: Neutral
- Refinancing impact: Neutral
- Future value modifier impact: Neutral
- Holistic analysis impact: Neutral
- Structural protection impact: Neutral
- Counterparty assessment impact: Capped at bb-

## Operations phase SACP: bb-

## Parent linkage and external influences (senior debt)

- Parent linkage: De-linked

## Project SACP: bb-

- Sovereign rating limits: No impact
- Full credit guarantees: No

## Senior debt issue rating: BB-/Stable

## Operations phase SACP

Our operations phase SACP reflects our view of the operating risk typical of a gas exploration field, which we view as relatively moderate ('4' on a scale of '1' being the lowest risk to '10' being the highest). We incorporate our view of the project's exposure to market risk and the GSPA offtakers' credit quality as key factors for the preliminary debt rating.

We assess the operations phase SACP as 'bb-' based on:

- The project's operations phase business assessment (OPBA) of '8'.
- Minimal exposure to resource risk, as 1P reserves are sufficient to cover more than 40 years of production.
- Market risk exposure, with potential volatility of cash flows of 15%-30%. Even though the project has 85% of production contracted under long-term GSPAs with minimum take-or-pay and at a fixed price, underpinning relatively stable and predictable cash flows, we only assume contracted capacity for 40% because we cannot determine the credit quality of the cash flows

from 60% of these contracts.

- We factor into our downside-case scenario the project's ability to mitigate impacts on cash flows that could stem from operating risks, such as lower production and higher operating and maintenance expenses, among other costs. Cash flows could also fall due to external events such as Brent reference prices, inflation rates, and insurance costs, especially considering the project's single-asset nature.
- Downside resilience is supported by the cash-funded $100 million debt payment fund, at the same time that it is exposed to refinancing risk on each of the bullet maturity dates. While there is a principal reserve to accumulate funds to repay each maturity, it only starts to receive cash flows from operations 12 months in advance of each maturity and is limited to a ceiling of $150 million.
- As a result, the operations phase SACP is driven by a minimum DSCR of 1.70x.

## Operations counterparties

- We view the offtakers of the GSPAs as material counterparties. As such, we limit the project's operations phase SACP at 'bb-', which is the blended average credit quality of the rated offtakers considered in our base case.
- Our counterparty analysis of Nepco mirrors the ratings on its parent, Jordan (B+/Stable/B), because it provides a timely guarantee for the due payment of Nepco's obligations under the GSPA.
- We view Chevron Mediterranean (a wholly owned subsidiary of Chevron Corp.) as an irreplaceable O&M counterparty. Despite the existence of other operators that could perform the same services, we view the unique characteristics of the lease agreement and JOA as tied to the obligations devoted to Chevron Mediterranean as the operator under these contracts. In addition, absent the O&M reserve account, we do not see the financial flexibility for replacement.

## Structural counterparties

- We acknowledge the risk of having NewMed Energy as part of the project under the sponsor loan. We assess NewMed as a non-material structural counterparty and we do not limit the rating on the notes to the credit quality of NewMed. This is because we see cross-default mitigation in the project's structure and the risk of default under the JOA as remote at this stage.

## Financial counterparties

- The account bank will be the Tel Aviv branch of HSBC Bank PLC (A+/Stable/A-1). We consider the bank account provider to be a material but replaceable counterparty. We view ProjectCo's management as able to react in case of stress, and we assess the liquidity as available in the structure allowing for the replacement. Therefore, we set the counterparty dependency assessment at six notches above the bank's creditworthiness, which does not currently constrain the rating.

### Liquidity

- We assess the project's liquidity as neutral given the cash-funded $100 million debt repayment fund. Even though this is not a standard debt service reserve account, the resources are sufficient to cover more than one semi-annual interest payment of all series of the notes.
- Additionally, the issuer accumulates cash one year ahead of any scheduled principal repayment, under a principal reserve fund, which it will use along with the debt payment fund and the cash flows to repay the bullet notes as they become due. The principal reserve fund is limited to a $150 million maximum amount.
- The project is not subject to financial covenants, which could cause an event of default or an acceleration of the notes payment. The transaction structure has a forward-looking distribution lock-up test, based on 1.5x NPV10/net debt test (remaining net present value discounted at 10%, according to the reserve consultant report, but based on lower Brent prices). Whereas we typically expect a lock-up mechanism within the next 12 months of operations to allow for seasonality and volatile cash flows and to effectively preserve additional cash to meet project liquidity needs, we view the proposed lock-up mechanism as neutral.

## Recovery Analysis

### Key analytical assumptions

- S&P Global Ratings believes that lenders would achieve the greatest recovery amounts through reorganization of the project, rather than liquidation, given consistent demand for gas in the region.
- The '1' (90%) recovery rating indicates that we expect full recovery in this default scenario.
- We value the asset using the net present value of future cash flows of the field's expected remaining life through 2044, when the lease agreement ends.

### Simulated default assumptions

- Simulated default year: 2023
- We simulate a reduction for revenues for US$200 million coupled with US$120 million of unexpected cash outflows due to capex.
- Our hypothetical default contemplates a deterioration of the oil and gas industry in the year 2023, when the project is expected to refinance the first series of the new notes. The inability to place new notes would be the trigger point for a potential financial default.
- Our recovery forecast assumes there would continue to be a viable business model driven by continued demand for gas in the region and the strength of the company's historically good operations supporting its ability to protect the existing GSPA.
- We discount the cash flow over the remaining life of the charter at a 10% rate and deduct 5% of administrative expenses to arrive at the net value.
- We add six-month pre-petition interest to the estimated debt at the time of default.

### Simplified waterfall

- Debt outstanding at the hypothetical default (including pre-petition interest): $2.2 billion
- Estimated net value of the project: $2.1 billion
- Recovery expectations: Rounded to 90% (recovery rate of '1').

## Related Criteria

- Criteria | Infrastructure | General: General Project Finance Rating Methodology, Dec. 14, 2022
- Criteria | Infrastructure | General: Sector-Specific Project Finance Rating Methodology, Dec. 14, 2022
- General Criteria: Environmental, Social, And Governance Principles In Credit Ratings, Oct. 10, 2021
- Criteria | Structured Finance | General: Counterparty Risk Framework: Methodology And Assumptions, March 8, 2019
- General Criteria: Methodology For National And Regional Scale Credit Ratings, June 25, 2018
- General Criteria: Guarantee Criteria, Oct. 21, 2016
- General Criteria: Country Risk Assessment Methodology And Assumptions, Nov. 19, 2013
- General Criteria: Methodology Applied To Bank Branch-Supported Transactions, Oct. 14, 2013
- General Criteria: Global Investment Criteria For Temporary Investments In Transaction Accounts, May 31, 2012
- General Criteria: Principles Of Credit Ratings, Feb. 16, 2011

## Ratings List

| **Ratings Affirmed** | |
|---|---|
| **Leviathan Bond Ltd.** | |
| Senior Secured | BB-/Stable/-- |
| Recovery Rating | 1(90%) |