

OVERCOMING CAPACITY CONSTRAINTS IN A GREEK LNG TERMINAL: AN INNOVATIVE STRATEGY TO MAINTAIN ACCESS FOR SMALL OFFTAKER WITHOUT COMPROMISING OPERATIONAL STABILITY

Mehdi Aid, FTI Consulting, +33 7 67 25 96 55, mehdi.aid@fticonsulting.com
Emmanuel Grand, FTI Consulting, +33 6 88 40 86 23, emmanuel.grand@fticonsulting.com

Overview

An LNG Terminal critical to security of supply with small storage capacity and limited capacity aiming at offering small users the opportunity to import LNG: How to manage constraints and maintain smooth operations?

Gastrade faced this challenge. It operates the Alexandroupolis FSRU in Greece, which is critical to Greece's security of supply. To address this challenge, FTI developed a novel approach to managing operations under these conditions for Gastrade: an internal LNG bank.

We will focus on the inter-user mechanics with the supporting modelling we performed, showing the balance struck by Gastrade between users' flexibilities and strict rules for smooth operations.

Methods

The Terminal Operator (i) aims to allow numerous users with small individual offtake to access LNG while (ii) ensuring continuous and smooth operations and sendout, while, due to (iii) limited regasification capacity and (iv) small storage size, LNG deliveries must be spaced by at least seven to ten days.

These four constraints and objectives necessitated an innovative approach to the traditional operational model of an LNG Terminal to ensure an overall stable sendout profile for the Terminal and each user.

After expert modelling to test different representative operational setups, aiming to balance individual users' needs and collective operational efficiency, the concept took the form of an Inter User Agreement (IUA), helped by the fact that, contractually, under the Terminal User Agreement (TUA) of the LNG terminal, users are entitled to sending out regasified LNG (send-out capacity) into the Greek gas grid, but not specifically their own LNG.

To implement this concept into the IUA, we developed an LNG banking system. We distilled the best practices into six fundamental principles relating to participation, lending, inter-user guarantee, centralised administration, shared cargo operations, and penalties:

- **Mandatory Participation:** All users must sign the IUA, ensuring non-discriminatory and equal treatment.
- **Compulsory Lending:** Users must lend surplus LNG from their inventory like an account holder allows the Bank to loan their deposits. This mechanism aims to prevent shortages and ensure that users with (a) current sendout rights and (b) future inventory but (c) no current inventory can deliver their regasified LNG.
- **Inter-User Guarantee:** The agreement requires a Guarantee for each user proportionate to the expected value of negative balances during the Gas Year, adjusted quarterly. This mitigates the risk of a borrowing user failing to bring LNG to balance its negative position, comparable to a disincentive on lasting overdraft in traditional banking.
- **Centralised Administration by the Terminal Operator:** The Operator, acting as the Bank, is entrusted with managing the Borrowing and Lending of LNG, maintaining accurate records, and issuing users balance statements.
- **Shared Cargo Operations:** small users can syndicate the cost of bringing a cargo, smoothening cash requirements over the year by (i) not requiring a user to buy a cargo lot in full at once and (ii) reducing borrowing positions. This compares to collateralised debt obligations issued by syndicated borrowers on financial markets, allowing smaller borrowers to leverage the size effect of larger collective loans with larger borrowers.
- **Penalties for LNG delivery shortcomings:** Penalties apply to users failing or delaying LNG delivery. These penalties are comparable to late payment penalties and disincentivise disrupting operations.

Results

FTI Consulting's experts provided an operational and contractual framework allowing smooth operations, which the Greek Energy Regulator accepted and is foundational to the operations starting in 2024.

As confirmatory feedback regarding our approach's effectiveness for FSRUs, our approach has been replicated by Deutsche Energy Terminals TUAs.

Conclusions

We explained how the LNG Bank mechanisms, such as mandatory lending and borrowing, enhance outcomes for all users in terms of maintaining barriers to entry to LNG markets, i.e., access for small users and ensuring stability of operations, i.e. promoting more efficient use of the resources, mitigating risks, which collectively increase the value delivered to the terminal users. These cooperative mechanisms improve value for all participants at a negligible cost.

References

Gastrade (2022), ALEXANDROUPOLIS TERMINAL INTER-USER AGREEMENT

Deutsche Energy Terminal (2024), Product information on planned capacities offerings