OLT Offshore LNG Toscana

"FSRU Toscana" Terminal
Commercial Services

2018

Summary

1 Introduction

1.1 PREMISES

OLT Offshore LNG Toscana S.p.A. (OLT) is the company that owns and operates the floating regasification Terminal "FSRU Toscana". OLT was set up by some of the major industrial companies in the national and international energy sector, that hold the shares of the company: IREN Group (49.07%), Uniper Global Commodities (48.24%) and Golar LNG (2.69%).

The regasification services are provided under the terms and conditions stated in the Regasification Code approved on March 1st, 2018 by Italian Regulatory Authority for Energy, Networks and Environment (ARERA) with Resolution 110/2018/R/Gas.

The present document describes the regasification services offered by "FSRU Toscana" Terminal outlining the access rules and the operating regime. In the event that changes to the Regasification Code have an impact on this document, the latter will be amended taking these changes into account.

Regasification Code and the relevant annexes, the regulated regasification tariffs and other information about "FSRU Toscana" are available on our website: **www.oltoffshore.it.**

1.2 "FSRU Toscana"

The floating storage and regasification unit named "FSRU Toscana" is in operation since 2013. It is located 12 nautical miles offshore the coast between Livorno and Pisa, with a single point of rotation at the bow in order to allow the ship to move around the anchorage turret, so adapting to sea weather conditions. "FSRU Toscana" is then connected to the shore by a 32" diameter pipeline built and operated by Snam Rete Gas S.p.A. (Snam Rete Gas).

LNG handling system has been designed to receive the LNG from LNG carriers with a transport capacity between 65,000 m^3 and 180,000 m^3 ("New Panamax" class, around the 90% of the worldwide LNGc fleet) and to discharge the LNG at the maximum flow rate equal to 12,000 m^3/h. "FSRU Toscana" is equipped with four 16" LNG loading arms: two LNG loading arms, one vapour loading arm and the fourth hybrid loading arm which can be used both for LNG and for vapour if one of the aforementioned loading arms is unavailable.

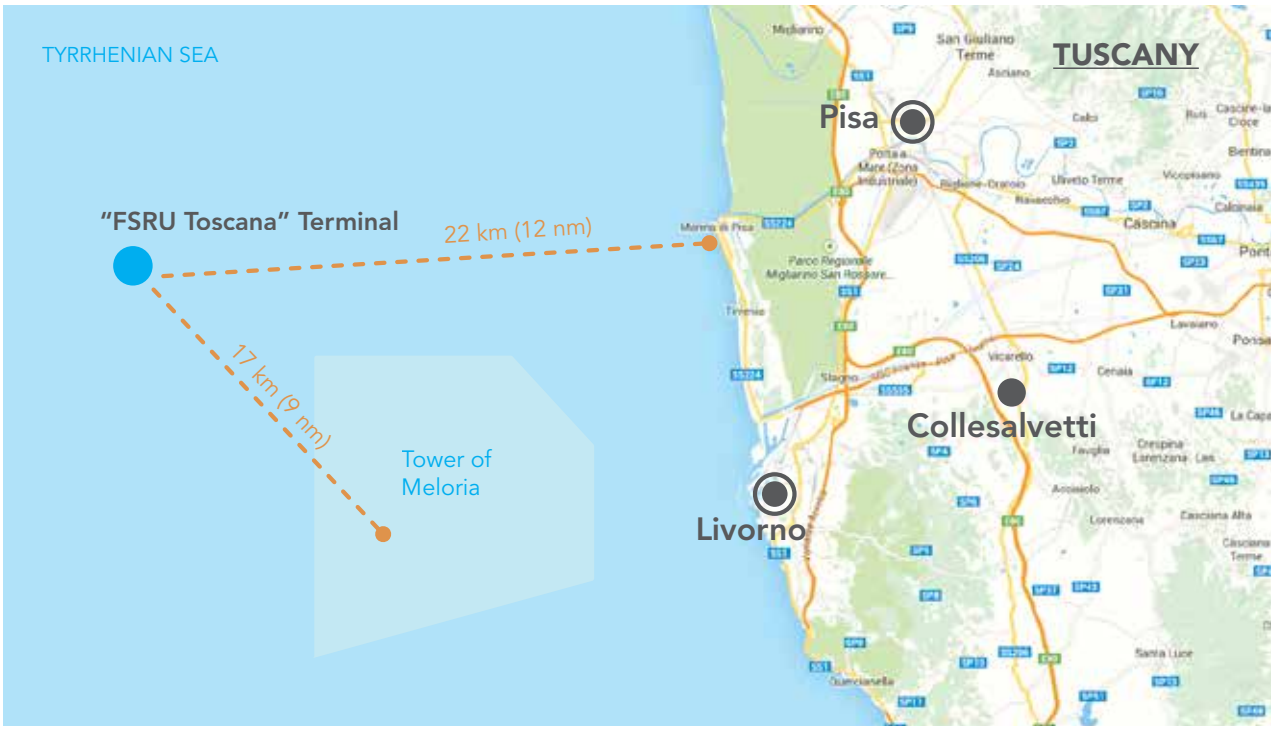


Figure 1-1 "**FSRU Toscana**"

The Terminal has four spherical Moss® LNG storage tanks. Each tank has a diameter of approximately 40 meters. The net storage capacity is estimated to be about 135,000 m^3.

On the "FSRU Toscana" three Tri-Ex Intermediate Fluid-Type vaporizers are installed and used in the regasification process. The Terminal has been designed to handle a minimum continuous LNG throughput of 10 tons/hour and a maximum throughput of 450 tons/hour, based on the nominal composition of the LNG, that means approximately a send-out between 0.3 and 15 million Sm^3/day of natural gas injected into the national transportation grid. Two flexible risers connect the turret swivel of the FSRU with the national transport grid owned and operated by Snam Rete Gas.

The maximum annual authorised regasification capacity of the Terminal is 3.75 billion Sm^3 of natural gas.

2 Terminalling model

The whole terminalling process provides LNG transfer, LNG storage and regasification as well as natural gas redelivery at the national transportation grid though the entry point named "GNL OLT Livorno".

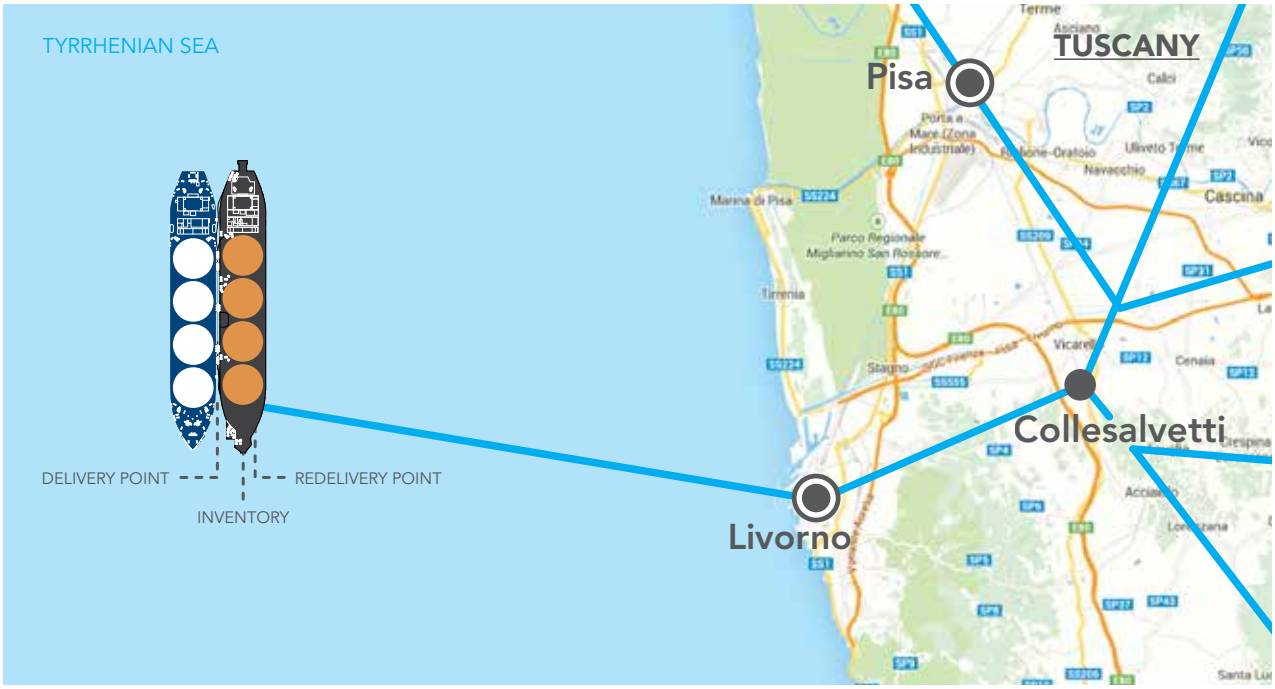


Figure 2-1 **Terminalling model**

Delivery Slot means the scheduled arrival window and the associated allowed LNG Carrier lay-time allotted or to be allotted to each user following the determination of an Annual Unloading Schedule as being the time during which the user's LNG carrier is scheduled to arrive at the pilot boarding station, transit to the Terminal, receive and install the spool pieces, moor, unload, depart from the Terminal and transit two nautical miles off from the Terminal itself.

Delivery Point means the Terminal flange located at the connection point between the Terminal's loading arms (and the spool pieces, in event they are used by LNG carrier) and the LNG carrier's manifolds.

User's LNG means, subject to any in tank title transfer by the users, LNG which has been delivered to the Terminal by or on behalf of the user.

User's Inventory means the quantity of LNG and gas in the Terminal which is held by the

Terminal on behalf of the users taking into consideration the start of the day inventory, the quantity of LNG delivered and/or transferred, fuel gas consumption, any corrections thereof.

Redelivery Point is the gas pipeline flange located on the seabed after SSIV (Sub-Sea Isolation Valve) station connecting the Terminal to the national transportation grid.

Wobbe Index correction system is the system that allows the delivery of the LNG that wouldn't meet the requirements of the national transport grid by means of nitrogen injection, producing up to 10,400 Sm^3/hr of nitrogen. The "Wobbe Index Corrector" module, in fact, allows LNG with a wide range of quality to be received, with a Wobbe Index of between 13.13 kWh/Sm^3 and 14.71 kWh/Sm^3. Should the LNG arriving at the Terminal have a Wobbe Index out of the above specifications, this LNG may, in any case, be accepted if OLT deems it can be adjusted to meet the quality specifications issued by Snam Rete Gas.

3 Terminal services

3.1 FIRM SERVICES

The main firm services that the Terminal provides to the users are:

- number of berthing slots set forth in user's Capacity Agreement to enable the user to moor the LNG carrier and deliver LNG at the "FSRU Toscana";
- allowing mooring access alongside the "FSRU Toscana" to receive and unload LNG carriers;
- providing the "FSRU Toscana" crew hook the LNG carrier mooring lines to the "FSRU Toscana" hooks only;
- receipt of an unloaded cargo from an LNG carrier during a Delivery Slot;
- storage of the user's LNG in the Terminal;
- providing continuous redelivery services;
- redelivery of natural gas to the Redelivery Point: such quantities will be made available to and taken in charge by Snam Rete Gas for the purpose of transportation service pursuant to Snam Rete Gas;
- providing nitrogen injection for correction of the Wobbe Index;
- metering, measurement and analysis of LNG and gas;
- availability of the mooring, tugs and pilot services to the user.

3.2 INTERRUPTIBLE SERVICES

On each gas day OLT may make available to the users, on interruptible basis, any unused firm redelivery services of any users and/or available capacity in excess of the regasification capacity required to provide continuous redelivery services.

3.3 ADDITIONAL SERVICES

The additional services provided by the Terminal are:

- transfer of LNG in storage between users;
- exchange of regasification capacity between users;
- voluntary slot transfer;
- capacity slot release;
- nomination process;
- commercial data publication on OLT website;
- ship approval process;
- Electronic Communication System (ECS) through which each user can manage its commercial position.

3.4 MARITIME SERVICES

The user shall procure tug, mooring lines and pilots services to service each LNG carrier by entering into contract with the tug, mooring lines and pilots service providers nominated from time to time by OLT.


OLT

4 How to become a user

Access to Terminal services is granted in an impartial manner and on equal terms to all parties provided that they meet the service conditions.
The applicant shall:

- Be a user of national transportation grid or otherwise shall specify one or more users of national transportation grid to whom the natural gas will be allocated.
- Meet the required credit support and the user's insurance.
- Comply with all the applicable laws concerning the exercise of its rights, the fulfilment of its obligations and the execution of the connected or ancillary activities that are performed under the Capacity Agreement.
- Certify the availability of LNG carriers approved for the unloading at the Terminal or undertake to deliver the LNG through LNG carriers compatible with the specification set forth in the Technical Manuals.

If any user ceases to satisfy or maintain one or more of the services conditions, the user shall notify OLT immediately after becoming aware of such event or circumstance.

5 Capacity allocation

The regasification capacity, whether it is offered at the beginning or during the gas year, is allocated through auctions: the continuous capacity is allocated on *ascending clock* basis whilst infra-annual on *pay-as-bid* basis and the reserve price criteria are set forth by ARERA with resolution 308/2018/R/gas and subsequent amendments.

Each applicant submits its bid through the relevant Platform for the Allocation of Regasification Capacity (PAR) organised and operated by Gestore Mercati Elettrici on which the applicant shall be enabled to operate.

In order to submit its bid, in fact, each applicant that meets the service conditions shall:

- sign the capacity agreement;
- provide the relevant financial guarantees;
- be enabled to operate on the PAR;

within deadlines, time and in accordance with the procedures set forth in the Regasification Code.

At the end of each allocation process, the Annual Unloading Schedule and the Ninety Days Unloading Schedule are updated and published by OLT on its website.

5.1 ALLOCATION OF CONTINUOUS CAPACITY AT THE BEGINNING OF THE GAS YEAR

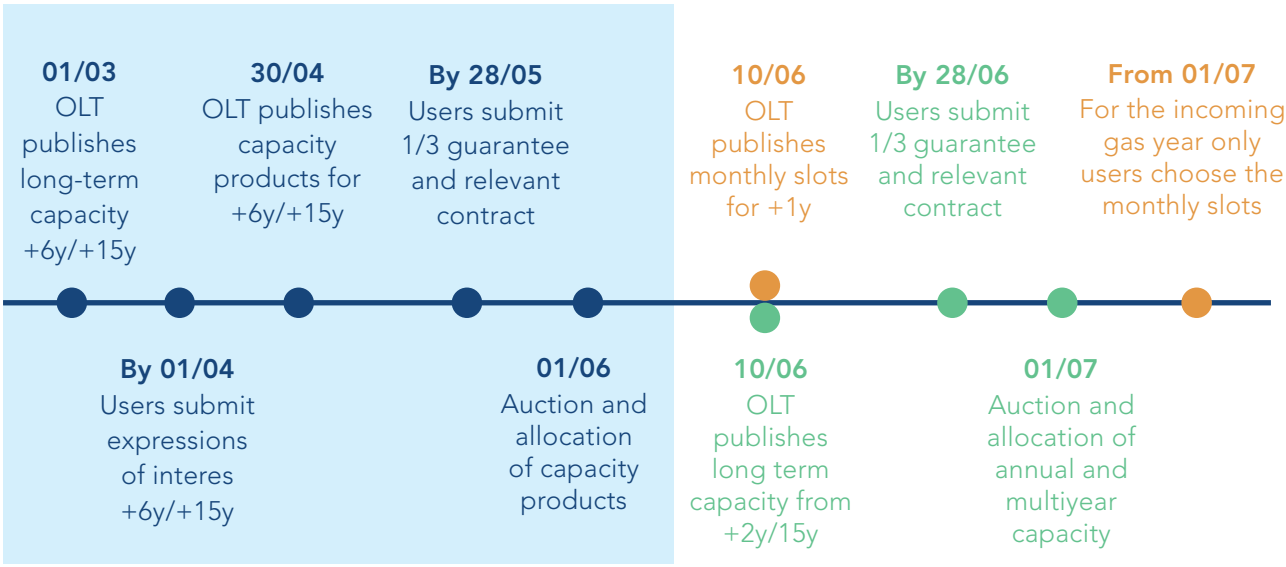
The continuous capacity means the regasification capacity offered at the beginning of a gas year for a period of one or more gas year.

In each gas year, the regasification capacity, expressed in liqm^3/year, available for allocation is equal to:

- capacity available following the previous multiyear allocation processes;
- capacity released by continuous capacity users on annual and/or multiyear basis;
- capacity made available due to *use it or lose* it criteria.

The continuous capacity, allocated on ascending clock basis, is offered in two different moments:

- the first allocation process concerns, in fact, capacity products, that are products consisting in one or more years from the 6th to the 15th year following the year of the allocation, identified basing on the expression of interest sent by users. This product is thought to meet the specific needs of users with long term supply contract.
- afterwards the next allocation process concerns regasification available from the 1st up to the 15th year following the year of the allocation, the users can bid gas year per gas year.



5.2 ALLOCATION OF CAPACITY PRODUCTS DURING THE GAS YEAR

OLT offers one or more capacity products consisting in one delivery slot for each month following the month on which the capacity products have been offered until the end of the gas year.

The reserve price for the capacity products will be equal to the average of the reserve prices of each month, calculated as per Resolution 308/2018/R/Gas.

Each applicant submits its bid through the relevant regasification auction platform organised and operated by Gestore Mercati Elettrici.

In order to submit its bid, in fact, each applicant that meets the service conditions shall:

- sign the capacity agreement;
- provide the relevant financial guarantees;
- be enabled to operate on the regasification auction platform;

within deadlines, time and in accordance with the procedure published on OLT company website.

5.3 ALLOCATION OF CAPACITY DURING THE GAS YEAR

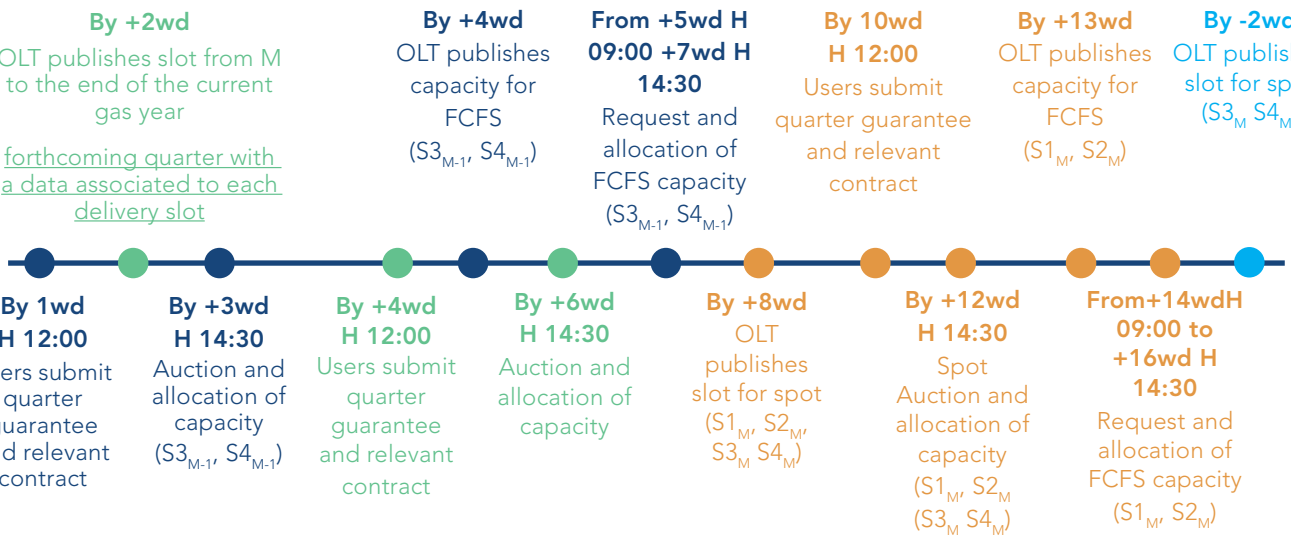
During the gas year OLT publishes the regasification capacity still available for allocation in such gas year.

In each allocation process, the available capacity is equal to:

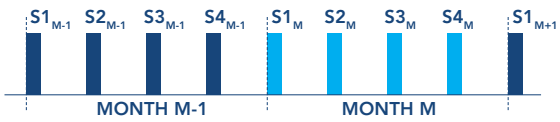
- primary capacity, that is the regasification capacity still available following the previous allocation processes;
- secondary capacity, that is the regasification capacity released by the users.

The allocation processes the regasification capacity is offered in, during the gas year, are;

- **Monthly auction**: at the beginning of each month the regasification capacity available is offered from the following month till the end of the gas year, e.g. in September the regasification capacity is offered from October 2018 up to September 2019. The regasification capacity is allocated on *pay-as* bid basis;
- **Spot auction:** in each month the regasification capacity remained available after the monthly auction is therefore offered again during the same month. The regasification capacity is allocated on *pay-as* bid basis;
- **First Come First Served (FCFS)**: following each spot auction, and in order to maximize the regasification capacity allocation, the regasification capacity potentially still available after spot auction is further offered on FCFS basis.



wd working day
SX_Y slot number X per month Y



5.4 CAPACITY TRANSACTIONS

The users, pursuant to provisions, time and deadlines set forth in the Regasification Code, can transfer, release or exchange their capacity.

Regasification capacity transfer
Before the beginning of a gas year or during the latter, a user may transfer part of the regasification capacity hold under a Capacity Agreement to another user, transferring all the rights and obligations associated with such regasification capacity.

Regasification capacity release
Before the beginning of a gas year or during the latter, a user may release part of the regasification capacity hold under a Capacity Agreement. Once released, such capacity is offered during the relevant allocation procedure as secondary capacity and the rights and the obligations associated with such regasification capacity remain with the releasee unless it is awarded to another user.

Regasification capacity exchange
Before the beginning of a gas year or during the latter, the users are entitled to exchange the regasification capacity respectively hold, including all the rights and obligation connected with the exchanged capacity.

5.5 CAPACITY AGREEMENT AND CREDIT REQUIREMENTS

In order to participate to each regasification capacity auction the user shall preliminary have signed a capacity agreement and provided adequate financial guarantees.

The Capacity Agreement is a framework agreement between OLT and the user, that becomes effective once the regasification capacity is awarded to the user only.

The financial guarantees shall cover 1/3 of the obligations arising from the regasification capacity awarding, for annual and multiyear allocation processes, and during the gas year all the obligations arising from the regasification capacity allocated in the next six months.
The financial guarantees can be covered through:

- credit rating for unsecured long-term debt (equal or higher to Baa3 given by Moody's or BBB- given by Standard&Poor's or BBB given by Fitch);
- bank guarantee;
- a not interest-bearing security deposit.

In case the credit rating is fulfilled by an affiliate of the user, the latter can provide a parent company guarantee expressing the guarantor's undertaking to meet the obligations under the Capacity Agreement.

6 Regasification programme

6.1 BORROWING AND LENDING PRINCIPLE

OLT allocates to each user, on a provisional basis, the energy of each cargo expected to be unloaded in each Delivery Slot scheduled to be unloaded during the months the Ninety Day Unloading Schedule refers to, basing on the percentage shared of each user with entitlements on these three months. Each user hence shares inventory and LNG with each other users, so giving users the flexibility to redeliver its cargo in a longer period than the one strictly necessary to discharge and regasify its own cargo.

Before each cargo scheduled in a relevant redelivery period is brought to the Terminal, OLT, in the name and on behalf of each borrowing user, registers a sales transaction at the virtual exchange point (PSV) in favour of each lending user, whose quantity is equal to the debit position of each of them.

Figure 6-1A
Borrowing and lending model

Without borrowing & lending

Each user has a flat redelivery profile calculated so to clear the storage before the next cargo arrives.

Figure 6-1B
Borrowing and lending model

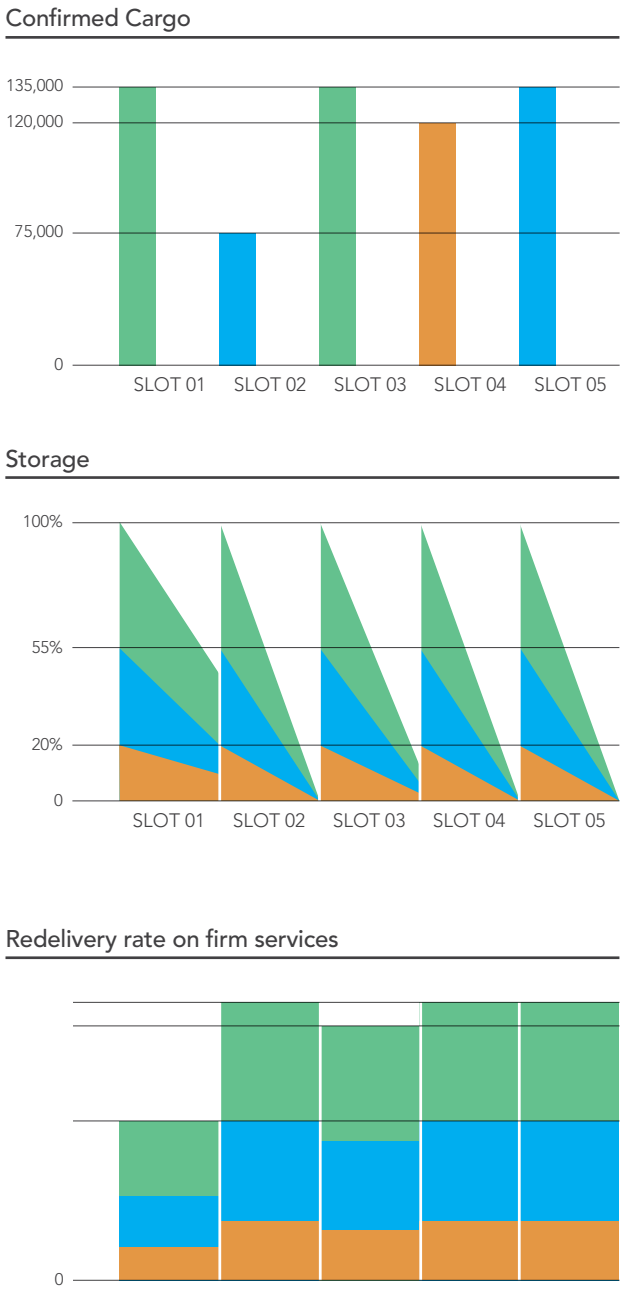
With borrowing & lending

Each user shares part of its inventory and of its LNG with the other users, regulating its own send-out during all the redelivery period.

45% Percentage share of USER A

35% Percentage share of USER B

20% Percentage share of USER C

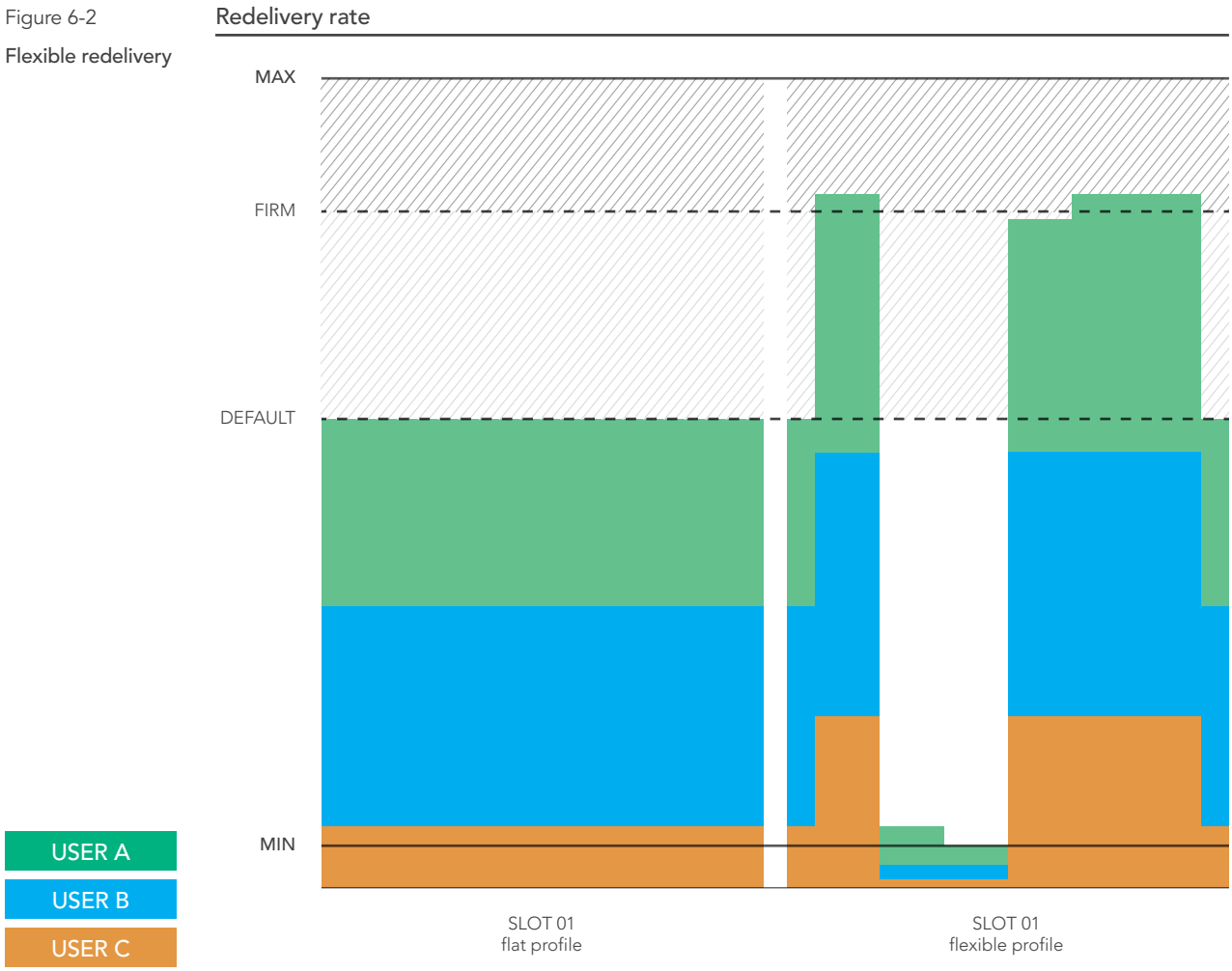


In the event a user is awarded a Delivery Slot when the redelivery period is commenced, the percentage share of each user with a cargo scheduled in that redelivery period will be properly recalculated.

6.2 REDELIVERY PROFILE FLEXIBILITY

Users can modulate their redelivery profile within technical regasification limits (about 0.3/15.0 million of cubic meters per day interruptible services included) and their own availability of LNG: it means the users have the flexibility to define the profile with which their LNG is regasified and redelivered at the entry point.

Figure 6-2
Flexible redelivery



On a daily basis all the Terminal users can nominate in excess to its own firm capacity any available interruptible services as per article 3.2 above.

6.3 OPERATIONAL OBLIGATIONS

All users contribute to ensure the Terminal full operational so guaranteeing the regasification services:

Minimum Redelivery Obligation: aggregated minimum quantity, equal to 4,450 MWh/day, each user shall at least nominate/renominate, or will be deemed to have nominate/renominate, pro rata based on its percentage share. A user can be excused from such obligation to the extent that the nominations/renominations of the other users exceed the minimum redelivery obligation.

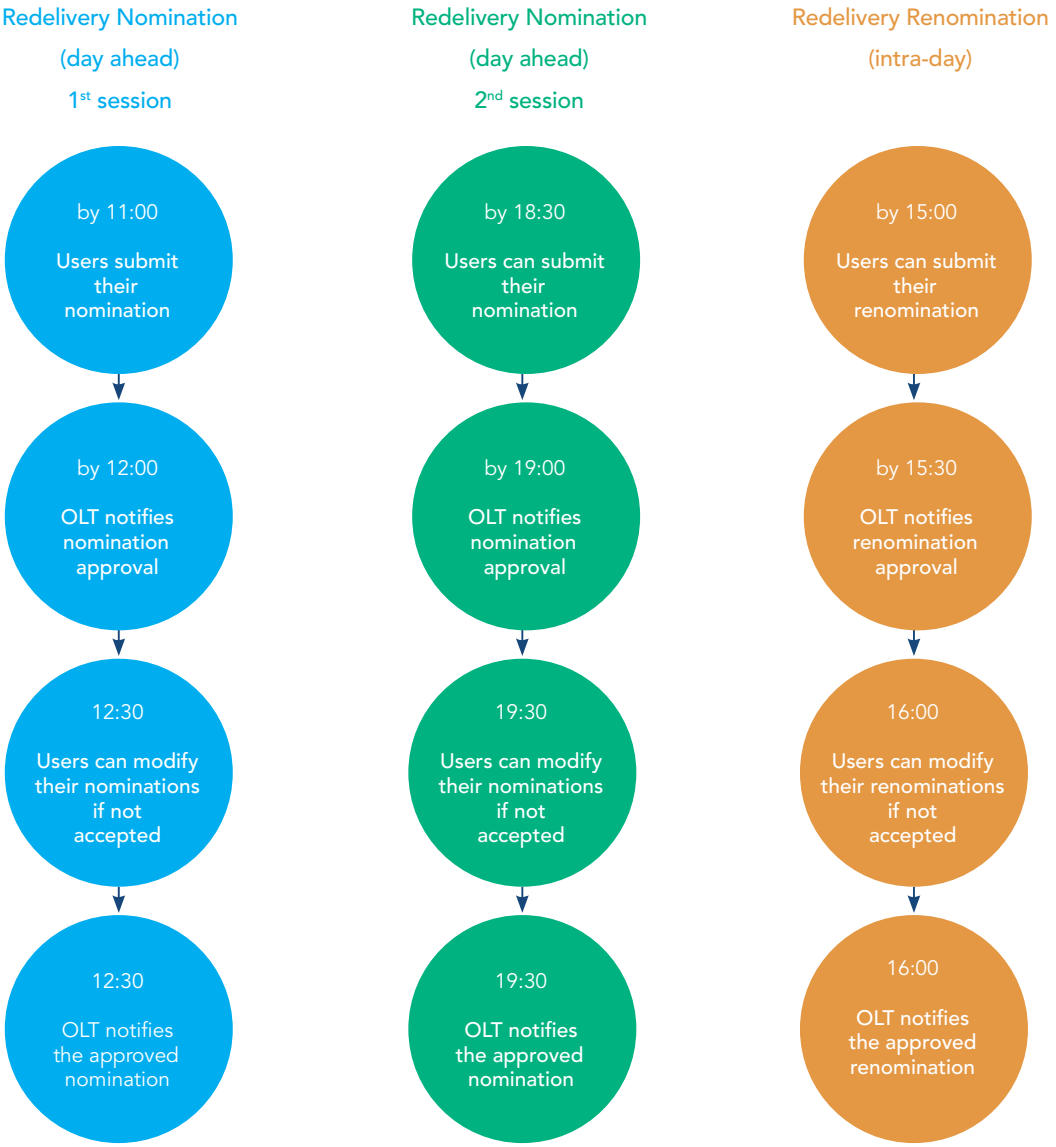
Minimum Inventory: an aggregated volume equal to 41,625 MWh each continuous capacity user shall maintain into the Terminal, proportionally to the continuous capacity of each continuous capacity user on the total continuous capacity allocated in the relevant gas year.

Consumptions and losses: OLT allocates to each user a quantity of LNG and/or gas destined to be used by OLT as fuel for the basic operation of the Terminal and for the regasification service during the unloading. Such quantity is expressed as a percentage – approved by ARERA and published by OLT on the company web site – of the actual quantity unloaded by the user at the Terminal.

7 Nominations and renominations

User can submit and modify its nomination both on day ahead and on intraday basis (hours are CET including DST).

Figure 7-1 Nomination and renomination processes



Provided that the users have collectively nominated a quantity of gas not less than 46,300 MWh, for a certain gas day, the users may renominate assuming that, in the first twelve hours of the current gas day, OLT redelivered them half of the volumes the users nominated through day-ahead nomination.

Disclaimer

This document sets forth certain information regarding the regasification facilities and services offered by OLT Terminal. Please note that the document can be amended from time to time pursuant to the Regasification Code. In each case OLT disclaims any and all responsibility for changes of the services herein described that may be as result of, *inter alia*, regulatory constrains defined by the relevant regulatory authority or may be imposed by Italian or European authorities.

The information herein contained should not be considered to give rise to any contractual relationship between OLT (or any of its affiliates entities) and any interested party.

IMPAGINAZIONE GRAFICA
Extra Comunicazione e Marketing

STAMPA
Mediaprint - Livorno

FINITO DI STAMPARE
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