



Gás para Crecer LNG TPA



Gás para Crescer – LNG TPA



ELENGY

- Luc HERVIER
- Contract Manager



ELENGY

- Jean-Marc Le Gall
- Project Director





LNG Terminal Access



Part 1

LNG Terminals: general background

Part 2

European case study

Part 3

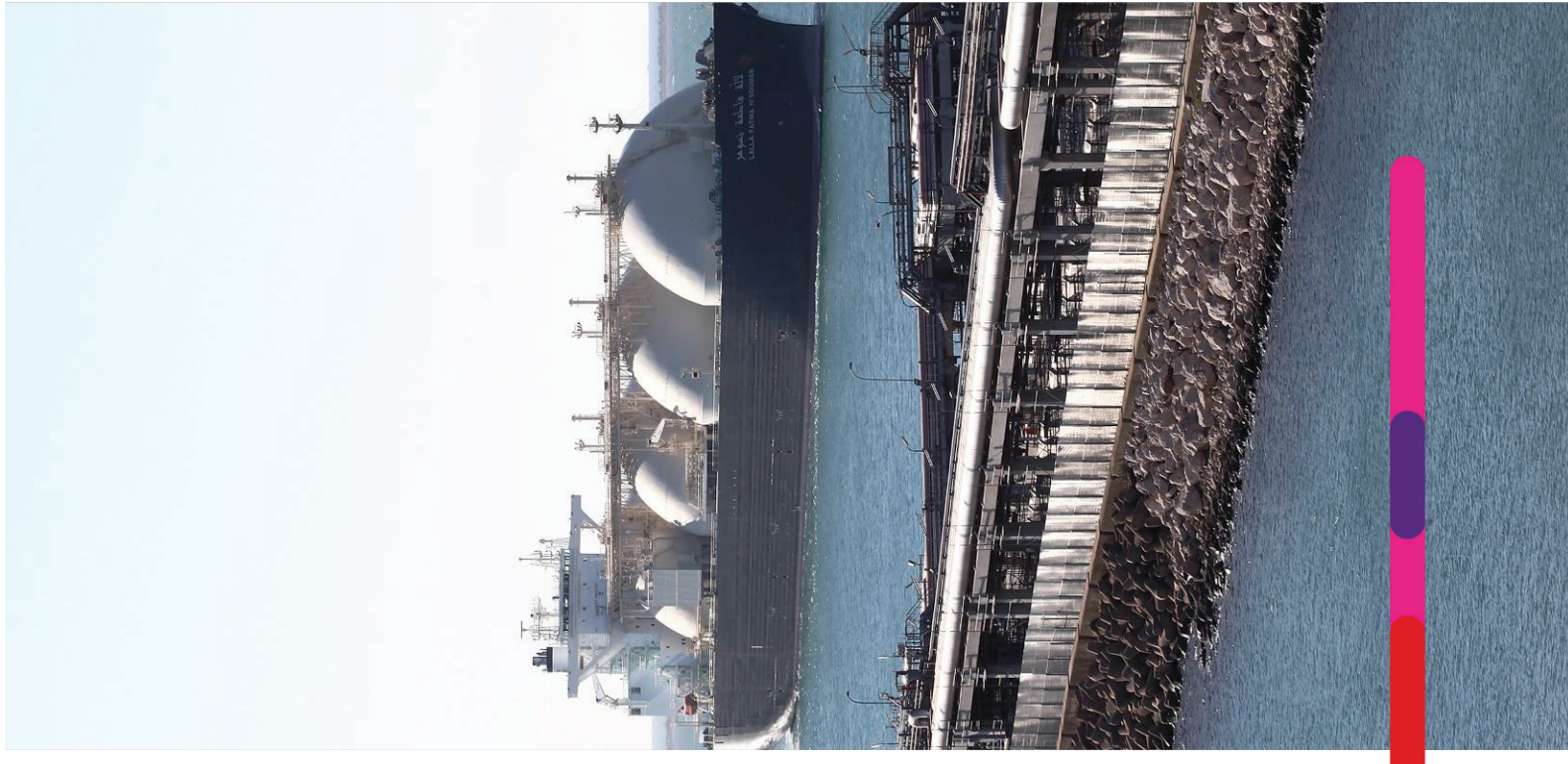
Business model & Terminal User Agreement

Part 4

What the Law should enforce?



LNG terminals General background



What kind of Third Party Access ?

Negotiated Access (nTPA)

- Based on bilateral negotiation
- Free of regulatory oversight (or light oversight)

Regulated Third Party Access (rTPA)

- Operator is required to expose access terms and conditions, allocation capacity process and tariffs
- Access terms and tariffs are approved (or decided) by the **Regulator**
- Same service = same conditions

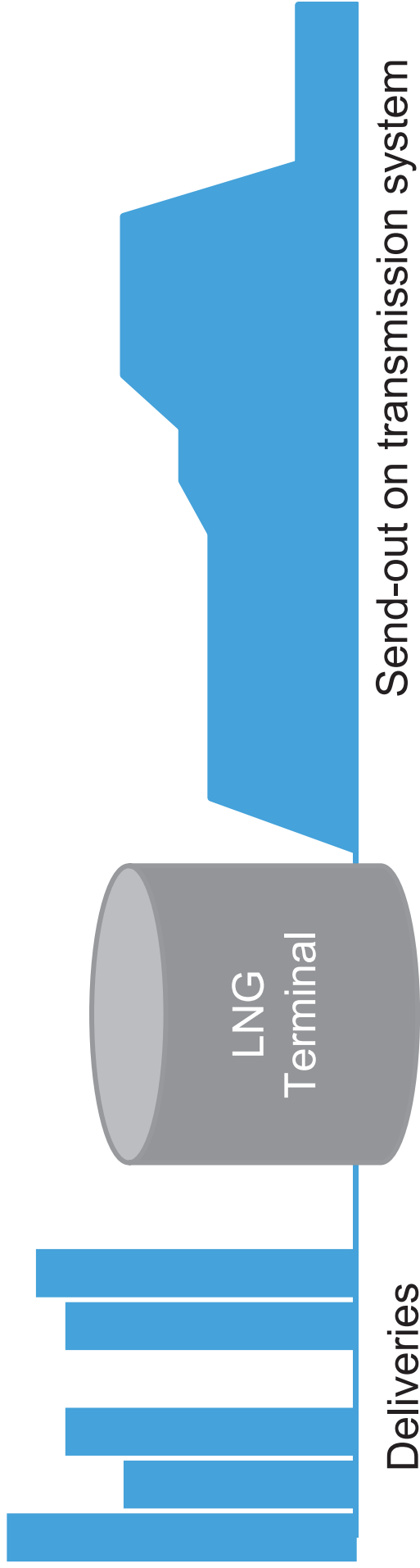
Exemptions?

- To avoid investment discouragement

LNG terminals are specific facilities ?

Yes:

It is a gas facility ensuring continuous send-out from discontinuous deliveries

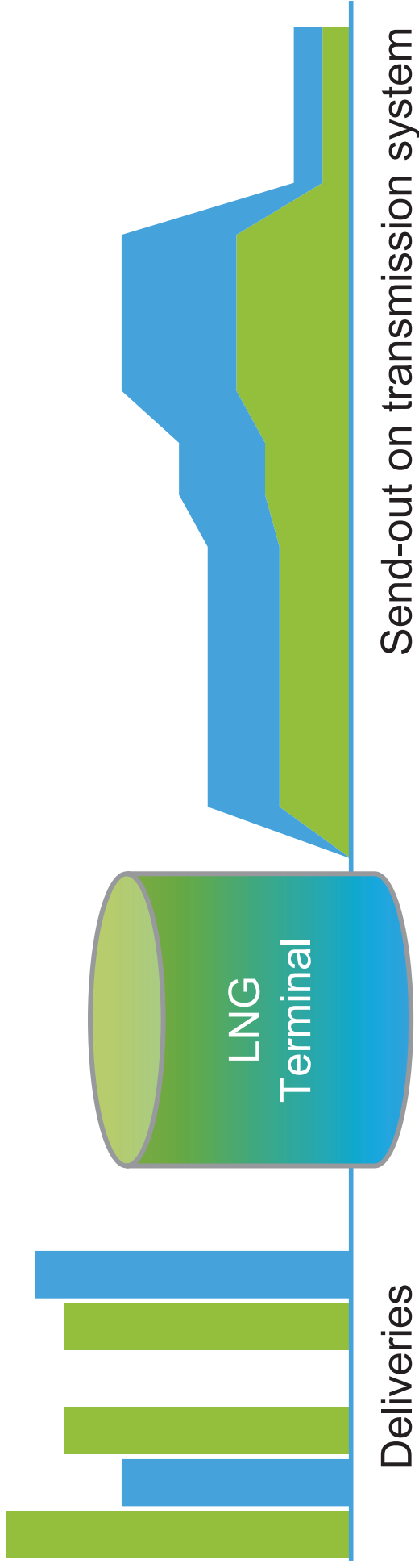


LNG terminals are specific facilities ?

Yes:

It is a gas facility ensuring continuous send-out from discontinuous deliveries

Multi-users needs



Size does matter (but not only)

TPA in Japan is not so easy to implement:

- Due to the lack of transmission capacity

Transmission grid access is a major key point for LNG capacities holders



Are FSRU specific facilities compared to on-shore facilities?

23 FSRUs in (regas) operation:

- only two are subjected to Regulated TPA (Klaipeda LNG / OLT Toscana LNG)

FSRU is no more no less than constrained LNG terminal

Country	Terminal	Capacity (mtpa)	Storage	TPA?	Comments
France	Fos-Tonkin	2,4	80 000	Yes	100% booked by a single user
Lithuania	Klaipeda LNG (FSRU)	3,2	170 000	Yes	~1,5Mt unloaded from 2014
Italy	OLT Offshore Toscana (FSRU)	3,0	137 500	Yes	~1Mt unloaded from 2013
Italy	La Spezia	2,6	100 000	Yes	~0,3 Mt unloaded from 2013
Greece	Revithoussa	4,0	130 000	Yes	<2 Mt unloaded from 2013

TPAs do exist on paper, but not really used actually:

- Terminals described above are clearly underused
- Not enough feed-back on fully booked constrained facilities

Main technical challenges to deal with

Technical challenges:

- Size storage
- Minimum/maximum send-out availability
- Level steps of send-out available
- Boil of Gas management
- ...

A LNG operator is used to deal with these problems, the real question in a TPA case is:

How to allocate rights between all the shippers?

Conclusion

Third Party Access is possible to implement

Access rules must be adapted specifically regarding the particularities

- Physical storage
- Boil of Gas management
- Gas demand
- ...

Law must enforce principles

Operator must define its commercial offer



European case study



The Third Package

The European Commission, in the explanatory memorandum¹¹ of Regulation (EC) No 715/2009 (Regulation (EC) No 715/2009 + Directive 2009/73/EC = “third package”), highlighted the areas that would be regulated under the new Regulation

“the Regulation will be extended to define how LNG terminal operators should offer third party access services and how they should allocate capacity and manage congestion. It will also define the transparency requirements and propose measures to enable a secondary market in terminal-capacity to develop.”

Consequences of regulation: The advent of the terminal operator - 1

3 models

- Ownership Unbundling (OU)
- ENAGAS, FLUXYS, ...
- Independent Transmission Operators (ITO)
- GRTgaz
- Independent System Operators (ISO)

- but may be combined with transmission operator (Spain, Belgium, NL, UK, Portugal)

Ownership Unbundling (OU)



ITO



ISO



Consequences of regulation: The advent of the terminal operator - 2

“Tasks of LNG system operators”, Directive 2009/73/EC,

- “a) Operate, maintain and develop under economic conditions secure, reliable and efficient LNG facilities to secure an open market, with due regard to the environment;
- b) **Refrain from discriminating** between system users or classes of system users, particularly in favour of its related undertakings;
- c) Provide any other transmission system operator, any other storage system operator, any other LNG system operator and/or any distribution system operator, sufficient information to ensure that the transport and storage of natural gas may take place in a manner compatible with the secure and efficient operation of the interconnected system; and
- d) **Provide system users with the information** they need for efficient access to the system.”

Consequences of regulation: GGPLNG, CAM

European Regulators' Group for Electricity and Gas (ERGEG)

- at the request of European Commission
- Issues Guidelines for Good Practices for LNG (GGPLNG- May 2008),
 - To introduce standards in commercial conditions
 - & including a set of procedures to facilitate TPA
- In coordination with Terminal operators



CAM: Capacity allocation mechanisms

- all potential users of an infrastructure are invited to indicate their interest in contracting capacity in new facility, even exempted.
- transparent capacity-allocation mechanisms shall:
 - provide economic signals for the efficient use of capacity and facilitate investment in new infrastructure;
 - be compatible with the market mechanism
 - be compatible with the connected network access systems.

Capacity Allocation Mechanisms

Open seasons (base case for rTPA)



First committed – first served

- For unallocated capacity after Open seasons

Consequences of regulation: CMP, UIOLI & Anti-Hoarding procedures

CMP: Congestions Management Procedures

- Ex-Ante: reserved capacity that is not going to be used by the capacity holder must be offered to the market
- Ex-Post: enforced release of the reserved but unused capacity

Secondary market / bulletin board (ex-ante)

Use-It-Or-Lose-It (ex-ante)

- A timely remarketing of capacity booked but not scheduled by the primary holders

Penalty for late cancellation of a scheduled call

Transparency

LNG terminals Transparency templates:

- On voluntary basis
- Give information needed by potential subscribers

*“The voluntary publication of information shall not be construed as creating any obligation to make such publication mandatory.
In some cases, the signature of a confidentiality agreement may be required beforehand.”*



	Macro Area	Submenu
1	CONTACT	Contact
2	TERMINAL CHARACTERISTICS	Facilities main characteristics Service Description LNG Quality
3	HOW TO BECOME A CUSTOMER / USER	Main steps for applying for access Contract information TSO information Ship procedures
4	CAPACITIES	Primary market Secondary market
5	TARIFF	Regulated terminals Exempted terminals
6	LEGAL DOCUMENTATION	Contracts/Codes Regulation/Legislation
7	OPERATIONAL DATA	Historical data Operational data
8	MISCELLANEOUS	Projects

Exemption

EU defined criteria to grant exemption to a new asset:

- It must enhance competition and Security of Supply,
- It must not be detrimental to the competition or to the efficient running of the regulated network to which it is connected;
- The level of risk must be such that the exemption is necessary to take the investment decision;
- The ownership must be of a specific entity;
- It must collect its revenues from its customers.

All criteria must be met in order to obtain exemption

||Th||



Exemption

Exemption doesn't mean the regulator is not watching

- The exemption may be partial (either on the definition of the tariff, or on the conditions, or on the marketing process)
- The exemption is limited : typically over 20 years
- The exemption can be removed
- The regulator generally impose conditions:
 - transparency about the use of the facility – web publication of operational data
 - Open subscription periods
 - UIOLI provisions
 - ...

Exemption

Regulation and exemption may coexist in the same facility – examples:

- **Truck loading:** marginal revenue compared to regasification → tariff is let within the hand of the operator.
- **Transshipment:** do not concern the internal market of the gas. Regulator requires a separate accounting
- Italian regime : even in case of exemption, 20% of the capacity must be reserved to TPA

Case study : OLT Toscana - Italy Livorno

- Start-up Dec 2013 – exemption granted Dec 2009
- **The operator** obtained to cancel exemption due to Security of Supply – it is now 100 % regulated

Conclusion

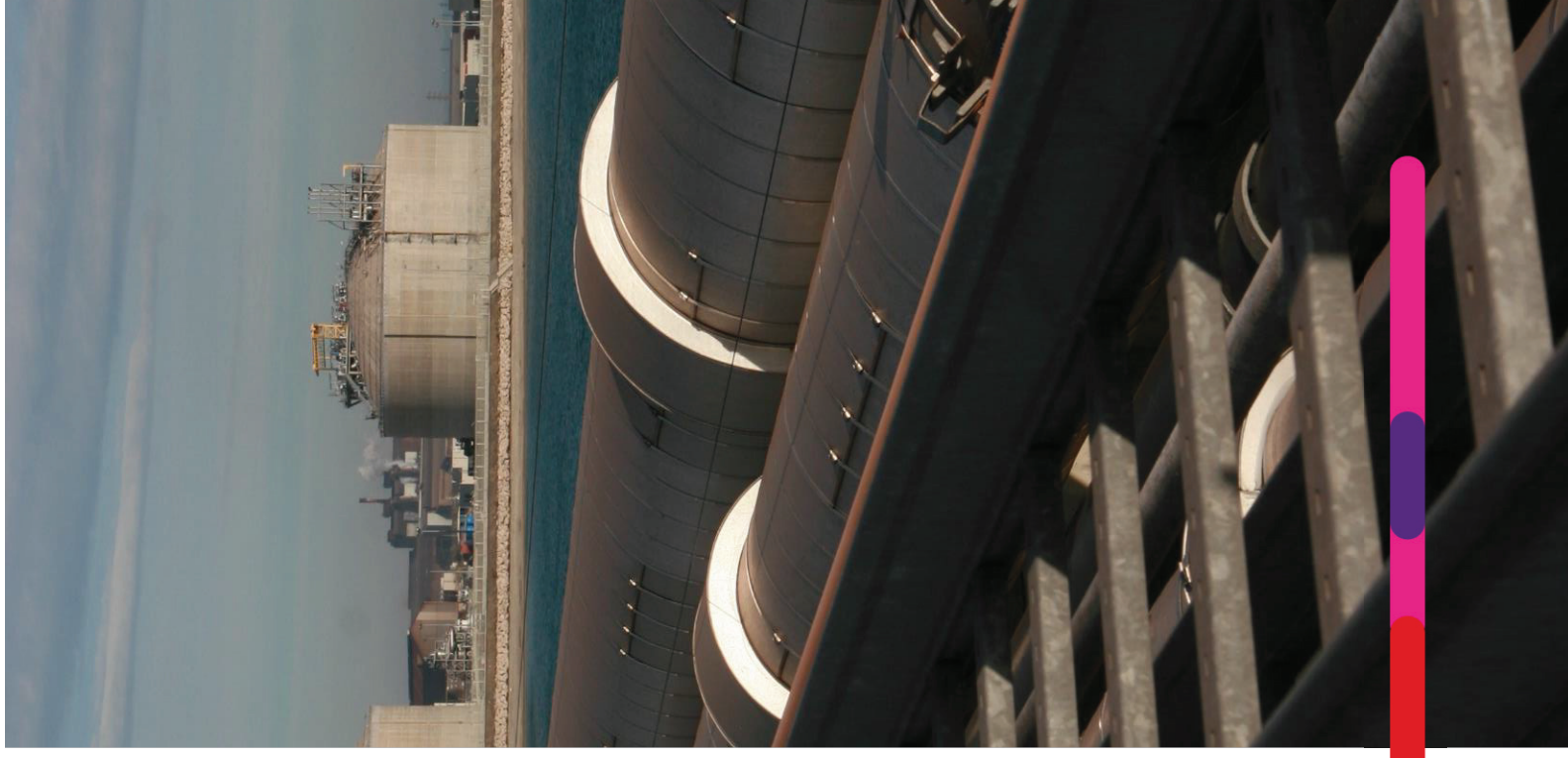
European case study provides a lot of insights

- Capacity Allocations
- Congestion Management
- Transparency templates
- Transparent examples of TUA

- http://www.oltoffshore.it/wp-content/uploads/OLT_Commercial-Services_012-web.pdf
- https://www.kn.it/uploads/files/dir21/dir1/19_0.php



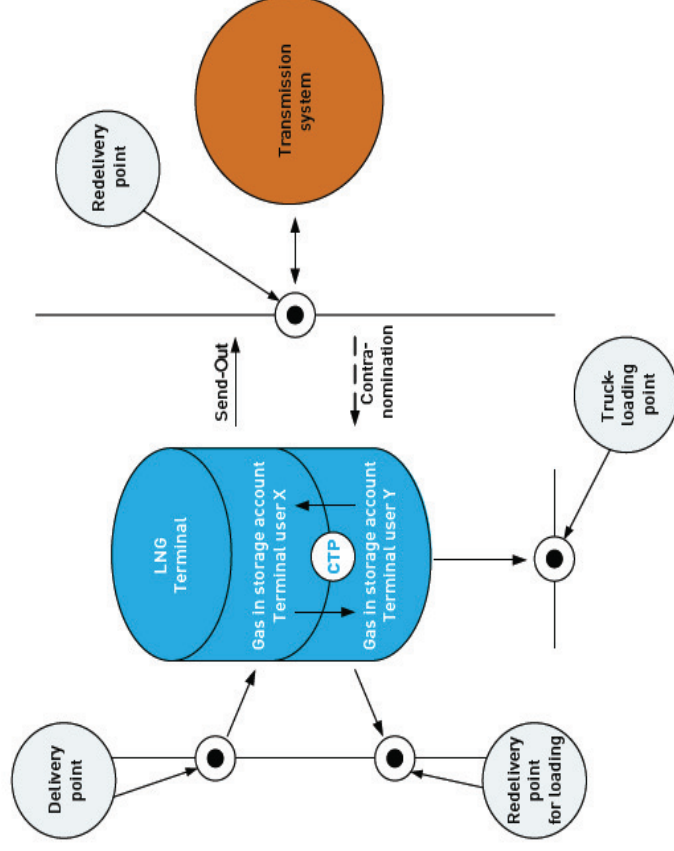
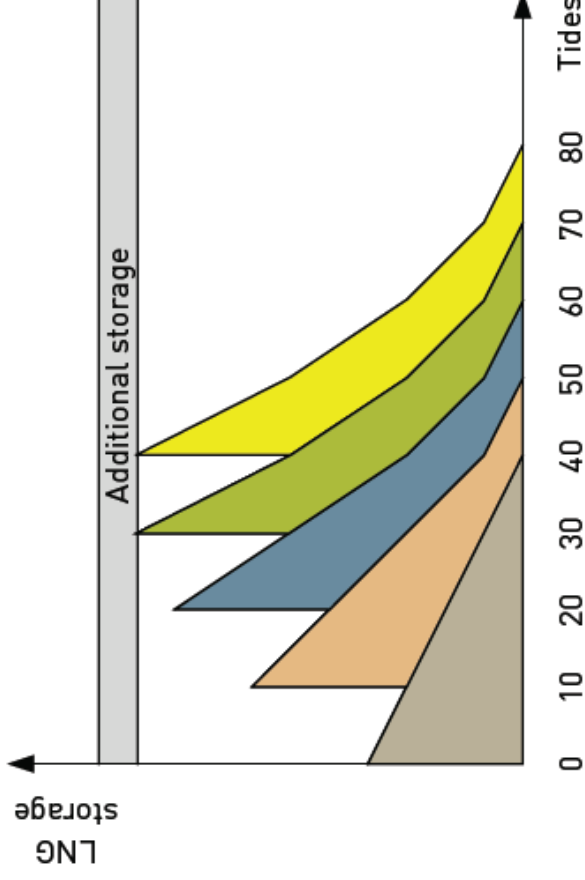
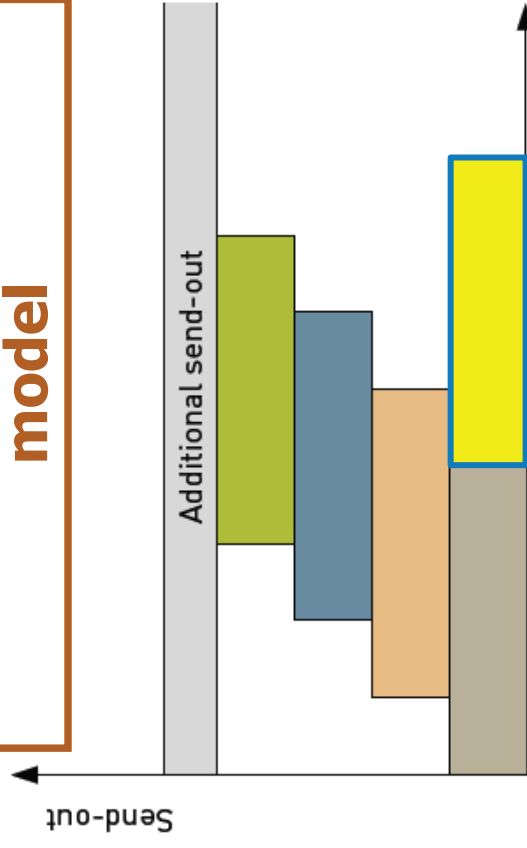
Business Model & Terminal User Agreement



Sharing access

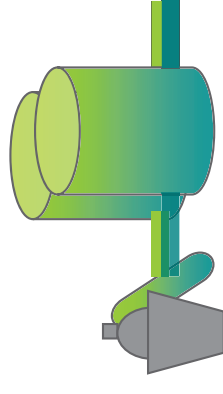
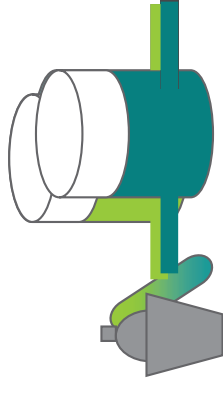
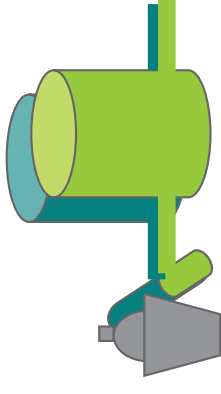
- Europe has experienced TPA for LNG Terminals since 2004
- Multi-users: many constraints and conditions have to be tackled in the TUA
- But multi-user model is also an opportunity for business optimisation

Classical terminalling model



Sharing conditions hinge on history and context

- Operator A:
 - ✓ Recent terminal, shared between several long-term customers (open-season)
 - ✓ Each customer has a virtual dedicated capacity
- Operator B:
 - ✓ Terminal shared between several long-term customers (open-season)
 - ✓ Designed with over-capacity
- Operator C:
 - ✓ Terminal stocks and resources are shared, ensuring optimal conditions for maximizing the number of deliveries and accommodating new entrants...

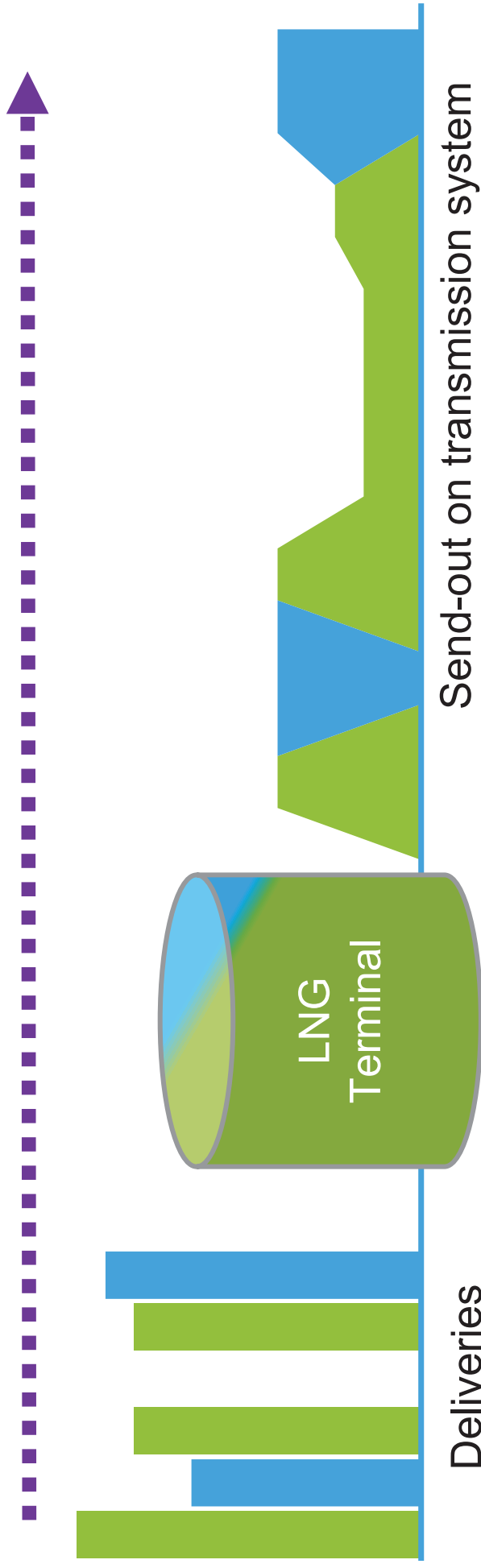


Shipper 1 Shipper 2

Basic Terminal User Agreement

The most basic send-out capacity allocation model

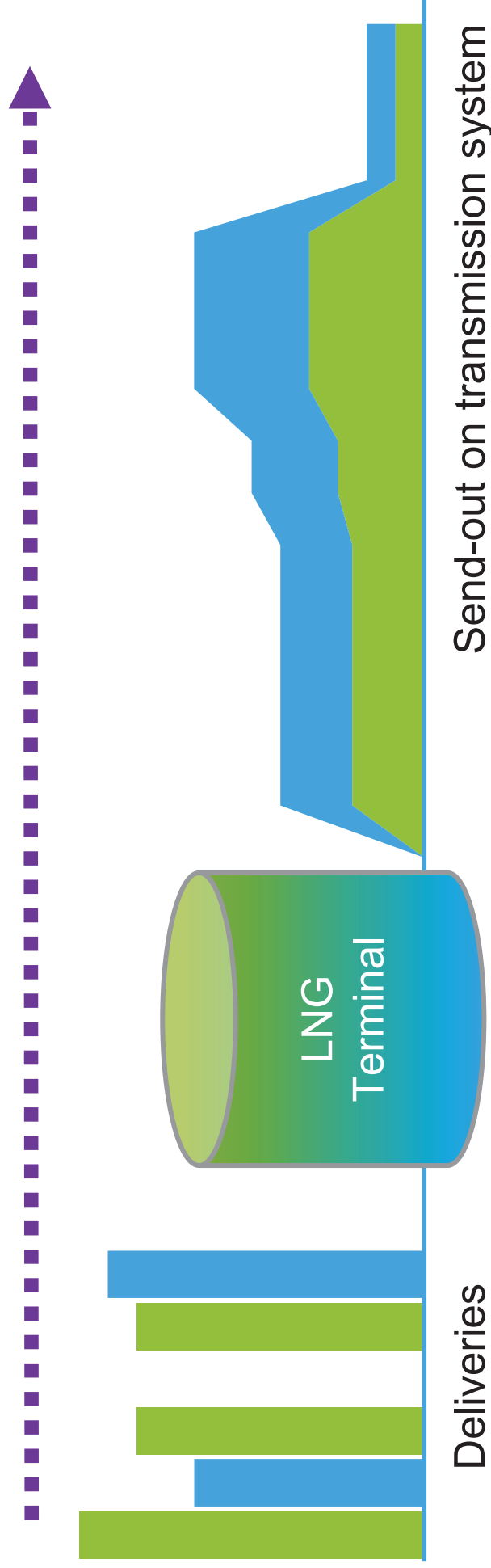
- Shippers have very limited storage rights and send-out rights
- 100% send-out to the grid



Real shared storage and send out

More elaborate TUA:

- Contractual management (with negative inventory allowance for example)
- Send-out is shared



Scheduling procedure & non-discrimination Example

Annual* Program for year Y

For January & February :

shipper's request before October 20th of year Y-1

Terminal's answer before October 31st of year Y-1

For March to December

Shipper's request before November 15th of year Y-1

Terminal's answer before December 15th of year Y-1

For each cargo:

- (Ship name)
- Date of unloading
- Loading Port
- Quantity

Monthly Program for month M

Shipper's demand before the 20th of month M-1 for M

Terminal's answer no later than the 25th of month M-1 for M

- Ship name

- Date of unloading

- Loading Port

- Quantity

- Daily emission

Daily program + Intra-Monthly re-scheduling

* Or any shorter period for infra-annual contracts

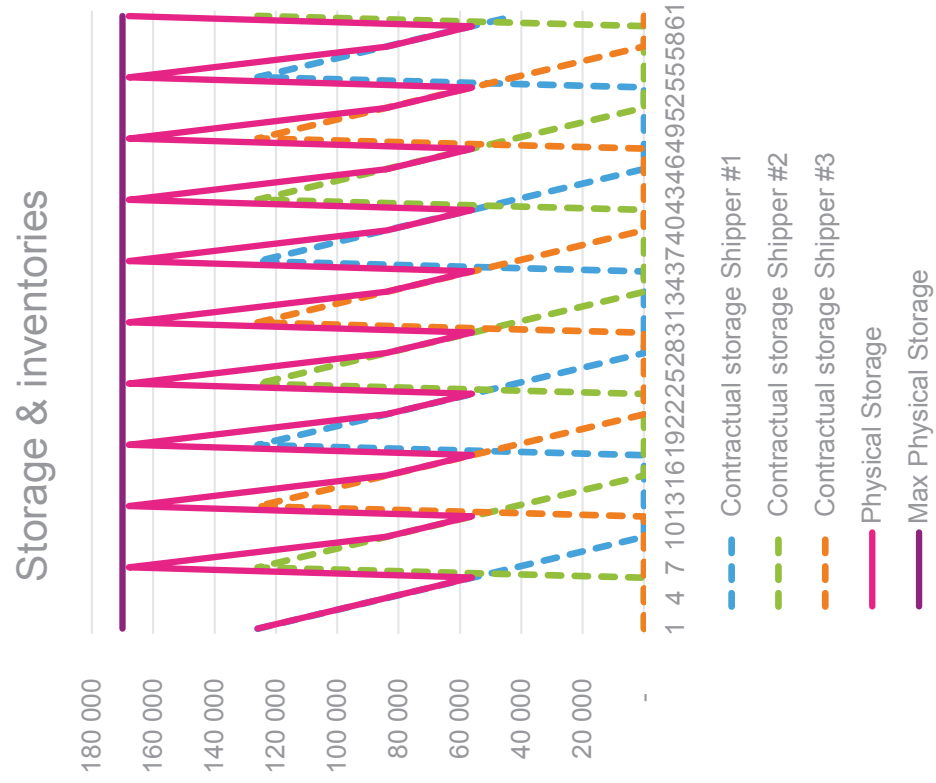
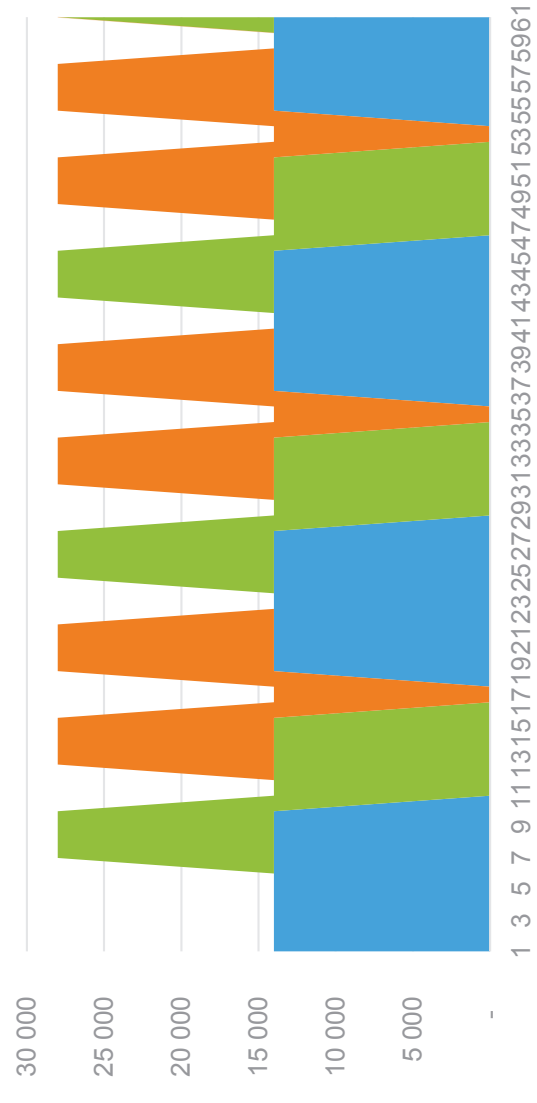
Keypoints to build a fair sharing agreement

Topics	Large player with a long-term commitment	Small player with spot cargos	Specific provisions (examples)
Minimal send-out (BOG management, threshold of the pumps)	Not always affected by a send-out variation/interruption when disposing of a back-up	Often dependent on the activity of the other users	Negative inventory allowance & reverse-flow at the interface with the grid to monitor stocks & send-out so that commercial figures match technical contingencies
Storage (size of the tanks)	In periods of high use rate, disturbed by the LNG stored by other users	Need to dispose of a minimum share of the storage capacity to ship reasonable daily quantities to the market downstream	Bundled service comprising a call, storage over a significant period and send-out rights
Quality ...			

Terminal sharing – example of shared capacity

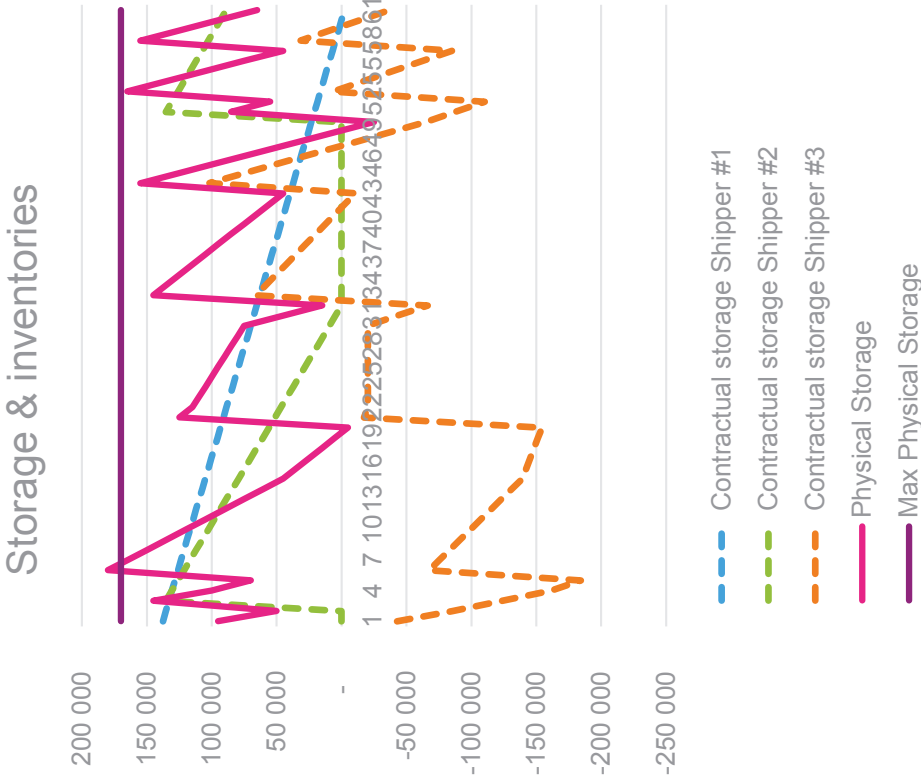
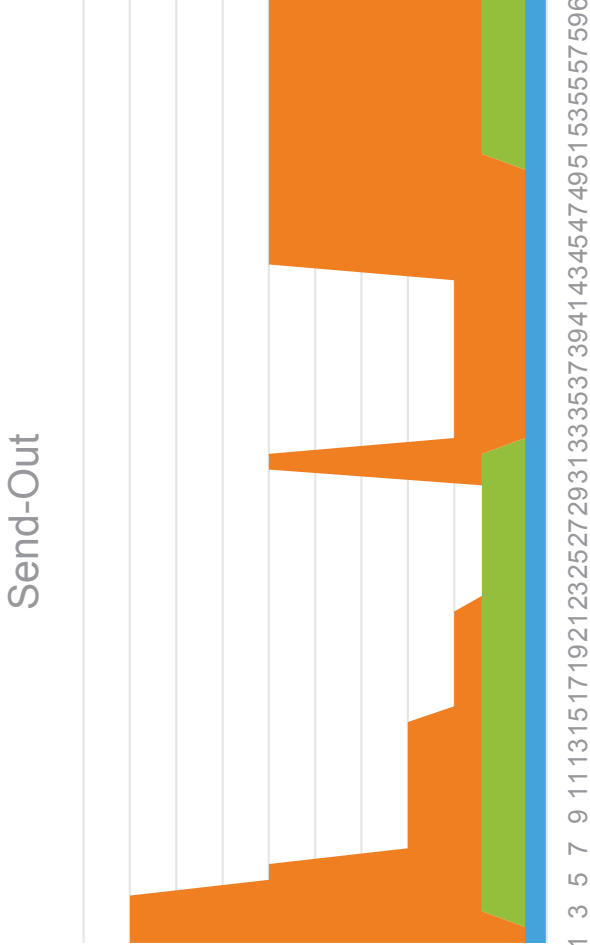
	Shipper #1	Shipper #2	Shipper #3
Capacity m3LNG	560000	560000	560000
Nb of Cargoes	4	4	4
Emission profile (nb of days)	10	10	10

Send-Out



TeNe

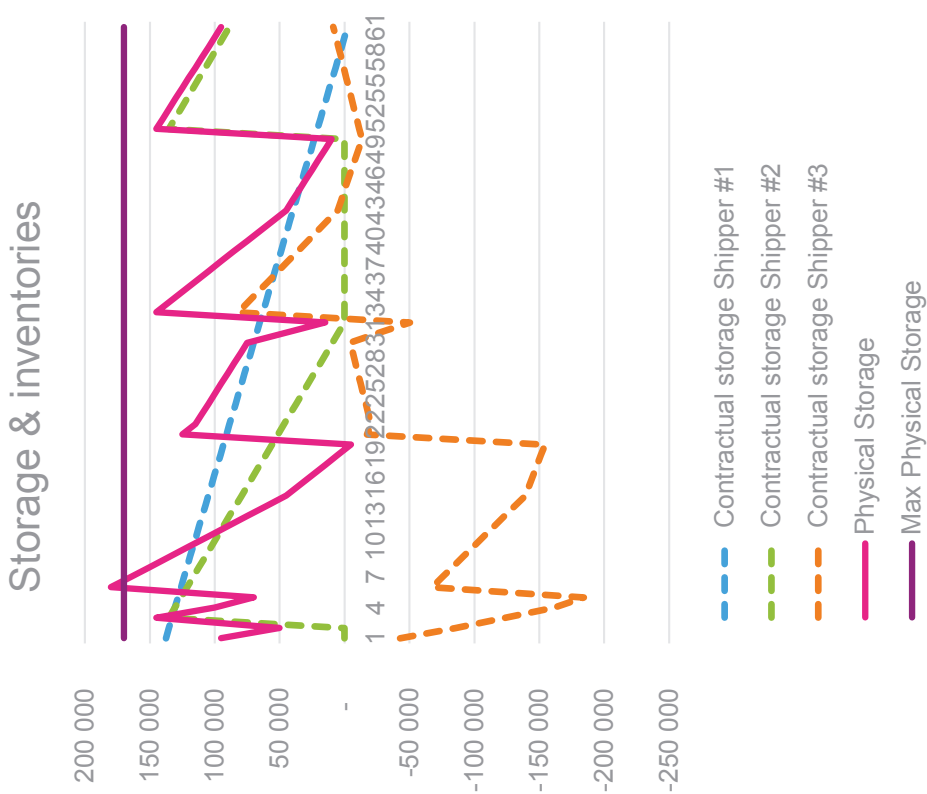
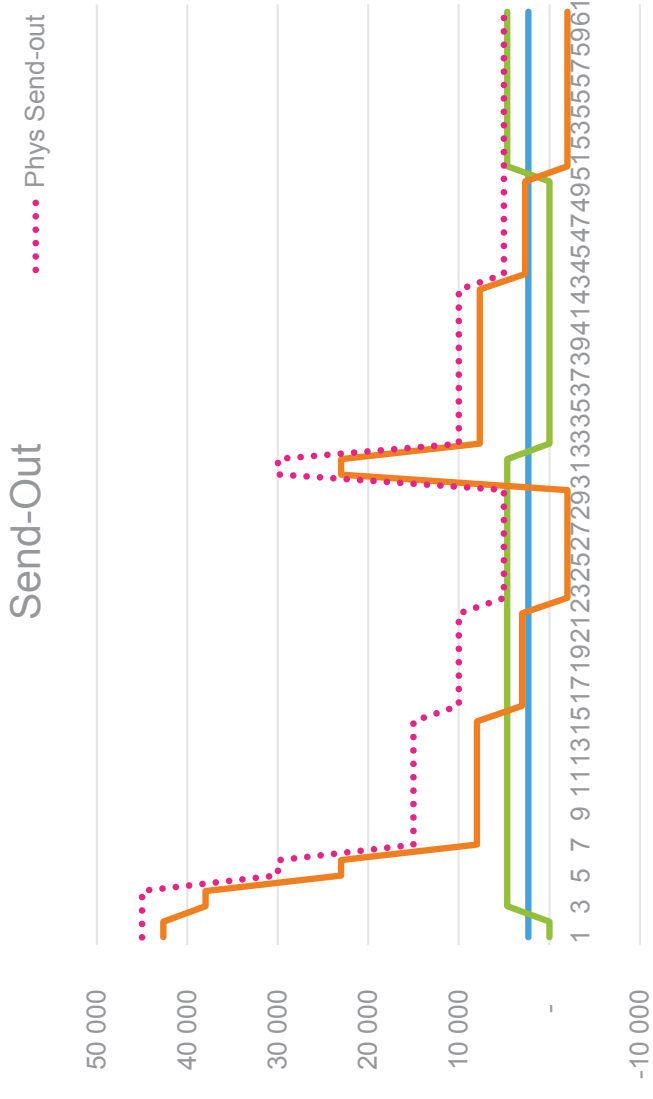
	Shipper #1	Shipper #2	Shipper #3
Capacity m3LNG	140000	280000	840000
Nb of Cargoes	1	2	6
Emission profile (nb of days)	60	30	Residual SO



Terminal sharing – example of shared capacity

Reverse-flow allowance

	Shipper #1	Shipper #2	Shipper #3
Capacity m3LNG	140000	280000	420000
Nb of Cargoes	1	2	3
Emission profile (nb of days)	60	30	Residual SO with reverse-flows rights



The terminal User Agreement - Role of the NRA

The LNG System Operator operates and maintain its facility

- He is able to offer the best services to the shippers

What is the Regulator's role ?

Example of French Regulator's power 1-2

The last decision of French Regulator:

As part of the LNG Consultation Group, in order to give more promotion to “continuous” service long-term capacities, several players proposed to withdraw the “uniform” service, and to keep only a basic service, with a uniform option, accessible to all the client categories. In its two public consultations, CRE questioned the stakeholders on this point. The responses were all favourable to such a change.

The present tariff deliberation introduces the basic service, equivalent to the “continuous” service. This service is accessible to any shipper from the first booking.

The spread of the physical send-outs from the terminal between the shippers will be done according to the total volumes of LNG unloaded and reloaded during the month, as well as the level of pooled inventory level at the start of the month and the projected inventory level at the end of the month.

The rules for calculating the end-of-month inventory level are the same for the three terminals and identical to those of the continuous service which apply at the Elengy terminals during the ATTM4 tariff period:

- if an unloading is planned by the shipper concerned for the month $M+1$, the end-of-month inventory level of this shipper is determined by supposing a uniform send-out of the last cargo unloaded during the month M up to the day of unloading of the first cargo of month $M+1$;
- if no unloading is planned for month $M+1$ by the shipper concerned, the end-of-month inventory level of this shipper is determined by supposing a uniform send-out of the last cargo unloaded during month M up to the last day of month $M+1$.

The customers of the basic service access, from the first reserved unloading, all of the flexible services offered by the terminal operators, such as dedicated storage, send-out flexibility, the subscription account, and pooling.

In order to minimise the impact of an isolated cargo on the other terminal clients, the operator can, on its initiative, anticipate the start of the send-out of this cargo within the limit of two days. In this case, the shipper concerned is not obliged to have a guarantee corresponding to the anticipated volumes of send-outs.

Example of French Regulator's power 2-2

The purpose of the example is to illustrate the French Regulator's power:

- The operator (Eleny) discussed TUA changes with its customer under Regulator's supervision,
- The Regulator decided to approved formally changes after a Public Consultation

Regulator's supervision and decision power has to be enforced by Law

Key points

Terminal User Agreement

- Must take into account
 - market specificities
 - Technical specificities of the facility (TUA may be specific to the terminal – case by case choices)
 - customer needs
- Need a “referee”
 - Regulator ?

The Terminal User Agreement can not be precisely set up by Law but some principles must be enforced



What the Law should
enforce?



What the Law should enforce ?

Transparency, objectivity and non-discrimination

- LNG Operator's duty and purpose

The operator must expose Conditions of Access including

- Available firm capacity to be sold (long-term / spot)
- Capacity Allocation Mechanism
- **Terminal User Agreement**
- Scheduling process
- Etc.

Encourage concertation between users under NRA supervision

What the Law should enforce ?

Regulator's role: duty and power

- Approving Terminal Sharing Agreements
- Approving (or deciding ?) tariff
 - “*Tariff must cover costs incurred by the operator acting as an efficient one*”
 - Cost-Plus? Price Cap? Security of Supply ?
- Ensuring Transparency, objectivity and non-discrimination
- Enforcing principles :
 - Congestion management and Anti-hoarding procedures (Secondary market, Use-It-Or-Lose-It, Last minute cancellation penalties)

TPA Exemption provisions

- To avoid disincentive to investment



Obrigado pela vossa atenção

