### **SECTION 7 ANNEXES**

This section contains the forms for allocation requests, capacity agreements, capacity transactions, the bank guarantees to be submitted in the various allocation processes and the quality specifications for LNG and Gas.

#### Annex 1: Expression of Interest for Annual and Multi-Year Continuous Capacity form

OLT Offshore LNG Toscana Via Gaetano D'Alesio 2 57126 Livorno – Italy Attn. Commercial Manager Marika Venturi oltcommercial@legalmail.it commercial@oltoffshore.it Fax: 0039 0586210922

Sent by certified email or fax

# Re: Manifestation of Interest for Annual and Multi-Year Regasification Capacity provided at the "FSRU Toscana" Terminal

Whereas on [•] the Company OLT Offshore LNG Toscana S.p.A., with registered office in via Passione 8, Milan, , tax registration and VAT no. 07197231009, published the LNG regasification capacity available for allocation from the second Gas Year until the twenty-fifth Gas Year, I ....., born on..../...., tax registration no....., resident in ....., resident in my capacity as legal representative or duly empowered person, in the name and on behalf of the Company [•], tax registration no. [•], VAT no. [•], registered in the companies' register of [•] and having registered office in [•], hereby wish to express my interest in the allocation of regasification capacity as represented below:

Gas Year	Relevant regasification capacity for each single Gas Year
20[•]/[•]	[•]
20[•]/[•]	

It is understood that the sending of this expression of interest shall not in any way be commit this Company to taking part in the allocation processes for the natural liquefied gas regasification capacity of the "FSRU Toscana" terminal, including in the event that OLT Offshore LNG Toscana S.p.A. were to offer available regasification capacity in a manner conforming to the interest expressed herein.

Yours sincerely

[Place], [DD/MM/YYYY]

[SIGNATURE]

Attachment: photocopy of the signatory's identity document

### Annex 2A1: Statement of Release of Continuous Capacity form

OLT Offshore LNG Toscana Via Gaetano D'Alesio 2 57126 Livorno – Italy attn. Commercial Manager Marika Venturi oltcommercial@legalmail.it commercial@oltoffshore.it Fax: 0039 0586210922

Sent by certified email or fax

## **Re: Statement of Release of Continuous Capacity**

Whereas the Company [•], tax registration no. [•], VAT no. [•], registered in the companies' register of [•] and having registered office in [•] ("**User**") entered into a Capacity Agreement with the Operating Company on [•] and holds the regasification capacity indicated below following the allocation process envisaged by Clause 2.1.5.1 of the Regasification Code, I ....., born on..../..., tax registration no...., resident in ...., in my capacity as legal representative or duly empowered person, in the name and on behalf of the Company [•], hereby, in accordance with the provisions of Clause 3.2.3.1 of the Regasification Code, release Continuous Capacity as indicated below:

Gas Year	20[•]/20[•]	20[•]/20[•]	20[•]/20[•]	20[•]/20[•]	20[•]/20[•]
Regasification capacity released in m <sup>3</sup> liq	[•]	[•]	[•]	[•]	[•]
Reserve price in €/m³liq	[•]	[•]	[•]	[•]	[•]
Request for application of the reserve price under Article 7, paragraph 1), letter a) of the TIRG, if the above specified reserve price is higher than the latter	[yes/no]	[yes/no]	[yes/no]	[yes/no]	[yes/no]

In particular, in accordance with Clause 3.2.3.1 of the Regasification Code, the User will remain subject to any obligations or liability arising from or associated with such released capacity in respect of the Operating Company except where and insofar as such released capacity is subsequently allocated following the allocation processes envisaged by the Regasification Code.

Yours sincerely,

[Place], [DD/MM/YYYY]

[SIGNATURE]

Attachment: photocopy of the signatory's identity document

### Annex 2A2: Statement of Release of Monthly Slots or Delivery Slots form

OLT Offshore LNG Toscana Via Gaetano D'Alesio 2 57126 Livorno – Italy attn. Commercial Manager Marika Venturi oltcommercial@legalmail.it commercial@oltoffshore.it Fax: 0039 0586210922

Sent by certified email or fax

#### Re: Statement of Release of Delivery Slots or Monthly Slots

Whereas the Company [•], tax registration no. [•], VAT no. [•], registered in the companies' register of [•] and having registered office in [•] ("**User**") entered into a Capacity Agreement with the Operating Company on [•], and holds the regasification capacity indicated below following the allocation process envisaged by Clause 2.1.5.1 of the Regasification Code, I ....., born on..../...., tax registration no....., resident in ....., in my capacity as legal representative or duly empowered person, in the name and on behalf of the Company [•], hereby release, in accordance with the provisions of Clause 3.2.3.2 of the Regasification Code, the Delivery Slots or Monthly Slots and the corresponding associated regasification capacity as indicated below:

			Scheduled			Request for
Gas Year [yyyy/y yyy]	Relevant Month and Year [mm/yyy y]	Sequential Number of the Delivery Slot or of the Monthly Slot [number]	Arrival Window for the Delivery Slot [DD/MM/YYY Y] (not applicable in the case of	Regasifica tion capacity allocated and subscribe d [m³ <sub>liq</sub> /year]	Reserve price [€/m³liq]	application of the reserve price under Article 7, paragraph 1), letter a) of the TIRG, if the above specified reserve price is

#### Courtesy English Translation (not binding – only the Italian version is binding) Annex 2A2: Statement of Release of Monthly Slots or Delivery Slots form

[Applicant's headed notepaper]

	Monthly Slot)		higher than the latter
			[yes/no]
			[yes/no]

In particular, in accordance with Clause 3.2.3.2 of the Regasification Code, the User will remain subject to any obligations or liability arising from or associated with each released Delivery Slot in respect of the Operating Company except where and insofar as such released Delivery Slot is subsequently allocated following the allocation processes envisaged by the Regasification Code.

Yours sincerely,

[Place], [DD/MM/YYYY]

[SIGNATURE]

Attachment: photocopy of the signatory's identity document

#### Annex 2A3: form for Withdrawal of Release of Continuous Capacity

OLT Offshore LNG Toscana Via Gaetano D'Alesio 2 57126 Livorno – Italy attn. Commercial Manager Marika Venturi oltcommercial@legalmail.it commercial@oltoffshore.it Fax: 0039 0586210922

Sent by certified email or fax

#### Re: Withdrawal of Release of Continuous Capacity

Whereas the Company [•], tax registration no. [•], VAT no. [•], registered in the companies' register of [•] and having registered office in [•] ("**User**"):

- a) entered into a Capacity Agreement with the Operating Company on [•], and holds the regasification capacity indicated below following the allocation process envisaged by Clause 2.1.5.1 of the Regasification Code;
- b) on [•] sent a Statement of Release of Continuous Capacity indicated below in accordance with the provisions of Clause 3.2.3.1 of the Regasification Code.

I ....., born on..../...., tax registration no....., resident in ....., in my capacity as legal representative or duly empowered person, in the name and on behalf of the Company [•], hereby request, in accordance with the provisions of Clause 3.2.3.1f) of the Regasification Code, the withdrawal of the release of the Continuous Capacity indicated below:

	Relevant	Regasification
Gas Year	Month and	capacity allocated
[уууу/уууу]	Year	and subscribed
	[mm/yyyy]	[m³ <sub>liq</sub> /year]

The User is aware that, following the sending of this withdrawal of release, it will again be subject to any obligations and liability arising from the Continuous Capacity indicated above.

Yours sincerely,

[Place], [DD/MM/YYYY]

[SIGNATURE]

Attachment: photocopy of the signatory's identity document

#### Annex 2A4: Withdrawal of Release of Delivery Slot or Monthly Slot form

OLT Offshore LNG Toscana Via Gaetano D'Alesio 2 57126 Livorno – Italy attn. Commercial Manager Marika Venturi oltcommercial@legalmail.it commercial@oltoffshore.it Fax: 0039 0586210922

Sent by certified email or fax

## Re: Withdrawal of Release of Delivery Slot or Monthly Slot

Whereas the Company [•], tax registration no. [•], VAT no. [•], registered in the companies' register of [•] and having registered office in [•] ("**User**"):

- a) entered into a Capacity Agreement with the Operating Company on [•], and holds the regasification capacity indicated below following the allocation process envisaged by Clauses 2.1.8, 2.1.5.1 of the Regasification Code,
- b) on [•] sent a Statement of Release of Delivery Slot or Monthly Slot in accordance with the provisions of Clauses 3.2.3.2 of the Regasification Code.

I ....., born on..../...., tax registration no....., resident in ....., in my capacity as legal representative or duly empowered person, in the name and on behalf of the Company [•], hereby request, in accordance with the provisions of Clause 3.2.3.2f) of the Regasification Code, the withdrawal of the release of the Delivery Slots or Monthly Slots indicated below:

Gas Year [yyyy/yyyy]	Relevant Month and Year [mm/yyyy]	Sequential Number of the Delivery Slot or of the Monthly Slot [number]	Scheduled Arrival Window for the Delivery Slot [DD/MM/YYYY]	Regasification capacity allocated and subscribed [m³ <sub>liq</sub> /year]

The User is aware that, following the sending of this withdrawal of release, it will again be subject to any obligations and liability arising from or associated with each Delivery Slot or Monthly Slot indicated above.

Yours sincerely,

[Place], [DD/MM/YYYY]

[SIGNATURE]

Attachment: photocopy of the signatory's identity document

#### Annex 3: Regasification Capacity Exchange form

#### Annex 3: Regasification Capacity Transfer form

OLT Offshore LNG Toscana Via Gaetano D'Alesio 2 57126 Livorno – Italy attn. Commercial Manager Marika Venturi <u>oltoffshore@legalmail.it</u> <u>commercial@oltoffshore.it</u> Fax: 0039 0586210922

Sent by certified email or fax

#### Re: Transfer of regasification capacity

This form for the transfer of regasification capacity ("**Transfer**") is executed on [•] between [•], tax registration no. [•], VAT no. [•], registered in the companies' register of [•] and having registered office in [•] ("**Transferring User**") and [•], tax registration no. [•], VAT no. [•], registered in the companies' register of [•] and having registered office in [•] ("**Transferre**").

#### Whereas

- a) The Transferring User intends to transfer regasification capacity to the Transferee.
- b) The Transferee will have the rights and obligations of a User as envisaged in the relevant Capacity Agreements.
- c) The Transferee has already entered into a Capacity Agreement with the Operating Company and has submitted the financial guarantees envisaged by Chapter 3.1 in relation to the regasification capacity for which it intends to become the transferee.
- d) This Transfer does not exempt the Transferring User from any obligations and liability under its Capacity Agreement accruing prior to the effective date of this Transfer.
- e) The effectiveness of this Transfer is subject to acceptance by the Operating Company, pursuant to the provisions of Clause 3.2.2.1b) of the Regasification Code.

Now, therefore, the Transferring User and the Transferee agree as follows:

## 1. Subject matter and effectiveness of the Transfer

1.1. This form regards the transfer of regasification capacity from the Transferring User to the Transferee pursuant to Clause 3.2.2 of the Regasification Code and, as a result, the Operating Company's making available and the Transferee's acquisition of the regasification capacity (expressed in m<sup>3</sup><sub>liq</sub>/year) or of the relevant Delivery Slots and/or Monthly Slots required to access the Regasification Service during the period of validity of the Transferee's Capacity Agreement.

#### Annex 3: Regasification Capacity Exchange form

1.2. The Transferring User will transfer to the Transferee and the Transferee will take over the benefits, interests, liability and obligations envisaged by Clause 3.2.2.2 of the Regasification Code in relation to the regasification capacity envisaged by this Transfer and stated in the subsequent article 2.1.

# 2. Regasification capacity

2.1. The Transferring User and the Transferee request permission to transfer regasification capacity as indicated below:

Gas Year [yyyy/yyyy]	Relevant Month and Year [mm/yyyy]	Sequential Number of the Delivery Slot or of the Monthly Slot [number] <sup>(1)</sup>	Scheduled Arrival Window for the Delivery Slot [DD/MM/YYYY] (1)	Regasification capacity allocated and subscribed [m³ <sub>IIq</sub> /year]	Transferring User	Transferee

<sup>(1)</sup> only complete in the case of a transfer of Delivery Slot or Monthly Slot

[Place], [DD/MM/YYYY]

# [Transferring User]

[Transferee]

The Transferring User and the Transferee declare that they consent to and have read and accepted all the applicable provisions of the Regasification Code and, in particular, pursuant to articles 1341 and 1342 Italian Civil Code, the Transferring User and the Transferee declare that they have examined the above terms and conditions and that they are aware of and specifically approve the following Clauses of the Regasification Code: 1.4.1.2b) (*"Interruptible Redelivery Service"*), 1.4.1.6 (*"Waiver of Regasification Service or Small Scale Service"*), 1.4.3 (*"Assignment to Terminal Lenders"*), 2.1.3 (*"Consequences of failure to meet the Service Conditions"*), 3.1.1 (*"Credit Requirements for the Continuous Regasification Service"*), 3.1.3 (*"Variation of the Credit Requirements"*), 3.1.5 (*"Replacement and enforcement of the financial guarantees"*), 3.1.8 (*"Insurance requirements"*), 3.2.1

## Annex 3: Regasification Capacity Exchange form

("No assignment"), 3.2.3 ("Release of regasification capacity"), 3.3.3 ("User's Changes to Ninety Day Unloading and Loading Schedule"), 3.3.4 ("Operating Company Changes to Annual Unloading and Loading Schedule and Ninety Day Unloading and Loading Schedule"), 3.3.5 and 3.3.6 ("Charge variance"), Chapter 3.8 ("Variations of the Regasification Service"), 5.2.2.6 ("Invoicing disputes"), 5.2.2.7 ("Late payment"), 5.3.1.1 ("The User's and Small Scale User's liability in respect of the Operating Company"), 5.3.1.2 ("Liability for loss of revenue"), 5.3.1.3 ("The Operating Company's liability in respect of the disputes"), 5.3.3.1 ("Withdrawal by User"), 5.3.3.3 ("Waiver of Italian Civil Code rights"), 5.3.4.4 ("User's and Small Scale User's rights and obligations"), 5.4.2.8 ("Time limits").

[Place], [DD/MM/YYYY]

[Transferring User]

[Transferee]

As a sign of acceptance

[Place], [DD/MM/YYYY]

OLT Offshore LNG Toscana S.p.A.

Attachment: photocopy of the signatories' identity documents

Annex 3A: Regasification Capacity Exchange form

OLT Offshore LNG Toscana Via Gaetano D'Alesio 2 57126 Livorno – Italy attn. Commercial Manager Marika Venturi oltcommercial@legalmail.it commercial@ltoffshore.it Fax: 0039 0586210922

Sent by certified email or fax

# Re: Form for Exchange of regasification capacity between Users

This form for the exchange of regasification capacity ("**Exchange**") is executed on [•] between [•], tax registration no. [•], VAT no. [•], registered in the companies' register of [•] and having registered office in [•] ("**User no. 1**") and [], tax registration no. [•], VAT no. [•], registered in the companies' register of [•] and having registered office in [•] ("**User no. 2**") and, collectively, "**Users of the Exchange**".

## Whereas

- a) The Users of the Exchange intend to exchange their regasification capacity pursuant to Clause 3.2.4 of the Regasification Code.
- b) The Users of the Exchange will take over all the rights and obligations arising from the relevant Capacity Agreements.
- c) The Users of the Exchange will retain all their rights and obligations in respect of the Operating Company under the Capacity Agreement, including the obligation to pay the Charges for the non-exchanged regasification capacity.
- d) The effectiveness of the Exchange is subject to the express acceptance of the Operating Company pursuant to Clause 3.2.4.2b) of the Regasification Code.

Now, therefore, the Users of the Exchange agree as follows:

## 1. Subject matter and effectiveness of the Exchange

1.1. This agreement regards the Exchange of regasification capacity pursuant to Clause 3.2.4 of the Regasification Code and the resulting re-allocation by the Operating Company of the regasification capacity (expressed in m3liq/year) or of the relevant Delivery Slots and/or Monthly Slots required to access the Regasification Service.

1.2. The Users of the Exchange intend to take over the benefits, interests, liability and obligations envisaged by Clause 3.2.4.3 of the Regasification Code in relation to the regasification capacity envisaged by this Exchange and stated in the subsequent article 2.1.

# 2. Regasification capacity

2.1. The Users of the Exchange request permission to exchange regasification capacity as indicated above:

	Regasification capacity to be exchanged					
	Gas Year [yyyy/yyyy ]	Relevant Month and Year [mm/yyyy] <sup>(1)</sup>	Sequential Number of the Delivery Slot or of the Monthly Slot [number] <sup>(1)</sup>	Arrival Window for the Delivery Slot [dd/mm/yyyy] <sup>(1)</sup>	Regasification capacity allocated and subscribed [m³ <sub>liq</sub> /year]	
User no. 1						
User no. 2						

<sup>(1)</sup> only complete in the case of a transfer of Delivery Slot or Monthly Slot

	Gas Year [yyyy/yyyy ]	Regasification Relevant Month and Year [mm/yyyy] <sup>(1)</sup>	n capacity as resulting Sequential Number of the Delivery Slot or of the Monthly Slot [number] <sup>(1)</sup>	g from the exchange Arrival Window for the Delivery Slot [dd/mm/yyyy] <sup>(1)</sup>	Regasification capacity allocated and subscribed [m³ <sub>liq</sub> /year]
User no. 1					
User no. 2					

<sup>(1)</sup> only complete in the case of a transfer of Delivery Slot or Monthly Slot

[Place], [DD/MM/YYYY]

[User no. 1]

[User no. 2]

The Users of the Exchange declare that they consent to and have read and accepted all the applicable provisions of the Regasification Code and, in particular, pursuant to articles 1341 and 1342 Italian Civil Code, the Users of the Exchange declare that they have examined the above terms and conditions and that they are aware of and specifically approve the following Clauses of the Regasification Code: 1.4.1.2(b)(*"Interruptible Redelivery Service"*), 1.4.1.6 (*"Waiver of Regasification Service or Small Scale*)

Service"), 1.4.3 ("Assignment to Terminal Lenders"), 2.1.3 ("Consequences of failure to meet the Service Conditions"), 3.1.1 ("Credit Requirements for the Continuous Regasification Service"), , 3.1.3 ("Variation of the Credit Requirements"), 3.1.5 ("Replacement and enforcement of the financial guarantees"), 3.1.8 ("Insurance requirements"), 3.2.1 ("No assignment"), 3.2.3 ("Release of regasification capacity"), 3.3.3 ("User's Changes to Ninety Day Unloading and Loading Schedule"), 3.3.4 ("Operating Company Changes to Annual Unloading and Loading Schedule and to Ninety Day Unloading and Loading Schedule"), 3.3.5 and 3.3.6 ("Charge variance"), Chapter 3.8 ("Variations of the Regasification Service"), 5.2.2.6 ("Invoicing disputes"), 5.2.2.7 ("Late payment"), 5.3.1.1 ("The User's and Small Scale User's liability in respect of the Operating Company"), 5.3.1.4 ("Liability for loss of revenue"), 5.3.1.3 ("The Operating Company's liability in respect of the User"), 5.3.1.4 ("Liability to third party owners of LNG"), 5.3.6.1 ("Limitations of Liability"), 5.3.3.1 ("Withdrawal by User"), 5.3.3.3 ("Waiver of Italian Civil Code rights"), 5.3.4.4 ("User's and Small Scale User's rights and obligations"), 5.4.2.8 ("Time limits").

[User no. 1]

[User no. 2]

As a sign of acceptance

[Place], [DD/MM/YYYY]

OLT Offshore LNG Toscana S.p.A.

Attachment: photocopy of the signatories' identity document

### Annex 4: Capacity Agreement form

### CAPACITY AGREEMENT

This regasification capacity agreement ("**Capacity Agreement**") is executed by **OLT Offshore LNG Toscana S.p.A.**, tax registration no. and VAT no. 07197231009, registered in the companies' register of Milan and having registered office in via Passione 8, 20122 Milan, in the person of its legal representative(s) [•], ("**Operating Company**") and [•], tax registration no. [•], VAT no. [•], registered in the companies' register of [•] and having registered office in [•], in the person of its legal representative(s) [•], ("**User**"), hereinafter collectively referred to as the "**Parties**".

#### Whereas

- a) On 2 November 2021 the Regasification Code was approved by the Italian Regulatory Authority for Energy Networks and the Environment ("ARERA") by resolution 190/2021/R/GAS (as amended, updated or supplemented);
- b) In relation to the regasification capacity which will be offered by the Operating Company, the User intends to (i) submit one or more regasification capacity requests pursuant to Clauses 2.1.5, 2.1.8 and/or 2.1.9 of the Regasification Code or (ii) submit a regasification capacity Transfer request as a Transferee pursuant to Clause 3.2.2 of the Regasification Code;
- c) The User intends to acquire the rights and obligations of a User of the Regasification Service envisaged by this Capacity Agreement and by the Regasification Code, in the event that it is awarded regasification capacity or following the Transfer of such capacity;

Now, therefore, the User and the Operating Company declare that they have agreed as follows:

#### 1. Definitions and interpreting criteria

- 1.1. Unless defined otherwise, the capitalised terms contained in this Capacity Agreement shall have the meaning indicated in Clause 1.1.1 of the Regasification Code.
- 1.2. This Capacity Agreement will be interpreted in accordance with the provisions of Clause 1.1.2 of the Regasification Code.

#### 2. Subject matter and effectiveness of this Capacity Agreement

2.1. The Parties hereby intend to regulate the terms of the future provision of the Regasification Service by the Operating Company to the User in relation to any regasification capacity that will be assigned following the allocation processes envisaged by Clauses 2.1.5, 2.1.8 and/or 2.1.9 of the Regasification Code or transferred pursuant to Clause 3.2.2, expressed in m<sup>3</sup><sub>liq</sub>/year, and for the maximum number of Berthing Slots that may be allocated for access to the Regasification Service.

- 2.2. This Capacity Agreement will be valid from its date of execution by the User and the Operating Company until the Operating Company or the User exercise their right of withdrawal envisaged by article 2.6, it being understood that as a result of its execution the User will not be obliged to take part in the capacity allocation processes envisaged by Clauses 2.1.5, 2.1.8 and/or 2.1.9 of the Regasification Code.
- 2.3. This Agreement will be valid from the date on which regasification capacity is awarded following the processes envisaged by Clauses 2.1.5, 2.1.8 and/or 2.1.9 of the Regasification Code or the Operating Company's acceptance of the regasification capacity transfer request in accordance with the provisions of Clause 3.2.2 until the usage of the assigned capacity is completed or the loss of such right in accordance with the Regasification Code. Where there is an uninterrupted sequence of allocations, the Agreement will remain valid until completion of the usage of the assigned capacity with the longest expiry date or the loss of such right in accordance with the Regasification Code.

Every allocation or transfer of regasification capacity will also determine the Regasification Capacity regulated by the Agreement which will be equal to the capacity allocated or transferred from time to time and to the sum of the allocated or transferred capacities that have not been or cannot be used in the case of an uninterrupted sequence of allocations or transfers.

- 2.4. The regasification obligation does not imply an obligation to redeliver the delivered LNG in the form of regasified gas but will consist of an obligation to redeliver quantities of gas equivalent in terms of energy, minus Consumption and Losses, at the Redelivery Point or at the Virtual Exchange Point.
- 2.5. Each of the Parties may give notice to the other of its withdrawal from this Capacity Agreement at any time, without prejudice to any rights and obligations that have been acquired hereunder.

# 3. Service Conditions

- 3.1. The User is aware and expressly accepts that the regasification capacity envisaged by article 2.3 above may be adjusted during the validity of this Capacity Agreement in accordance with the provisions of the Regasification Code.
- 3.2. The Regasification Service relating to the regasification capacity envisaged by article 2.3 is regulated by the Capacity Agreement and the Regasification Code: therefore, the User and the Operating Company declare that they are fully aware of the contents of the Regasification Code and they agree to apply it and to comply with it. In particular, the User declares that it has read, accepted and approves the Clauses indicated in this Capacity Agreement.
- 3.3. The User declares that it is aware and accepts that any amendments to the Regasification Code made subsequent to the execution of this Capacity Agreement will automatically apply to the Capacity Agreement itself, even where they have not been expressly accepted by the User.

3.4. For the entire duration of the Capacity Agreement, and in any case pursuant to Clauses 2.1.1 and 2.1.2 of the Regasification Code, the User shall comply with all the Service Conditions.

# 4. Charges

- 4.1. The charge for the Regasification Service is determined following the regasification capacity allocation processes envisaged by the Regasification Code and in accordance with the provisions of Clause 5.2.1 thereof. Therefore, where there is an uninterrupted sequence of allocations, the charges for the service may be different from the results of the processes pursuant to which each different capacity was assigned. In the case of transfer of regasification capacity, the charges payable for the Regasification Service by the Transferee for the transferred regasification capacity will be those envisaged by the Transferring User's Capacity Agreement for such capacity.
- 4.2. The charge for the Snam Rete Gas S.p.A. transportation service is determined in accordance with the procedure established by the Regasification Code, applying the transportation tariffs approved by the ARERA.
- 4.3. The User also agrees to pay the Operating Company its share of the quantities payable in kind by the Operating Company to Snam Rete Gas S.p.A. to cover the consumption associated with the transportation service in accordance with the provisions of resolutions ARG/gas 184/09, ARG/gas 192/09, ARG/gas 198/09 as subsequently amended.

## 5. Administrative liability

The User declares that it is aware of the applicable legislation on the administrative liability of legal persons, with particular regard to Legislative Decree no .231 of 8 June 2001, and that it has viewed the document entitled "Model 231", which also includes the Code of Ethics which the Operating Company drafted with reference to the applicable legislation on administrative wrongdoings by legal persons arising from crimes committed by directors, employees and/or collaborators. Model 231 is available on the website of the Operating Company. Moreover, the User may ask the Operating Company to provide it with a hard copy at any time.

## 6. Money laundering

The Operating Company declares that it complies with the principles envisaged by the Legislative Decree no. 231 of 21 November 2007 and that it agrees with the general obligation of "active collaboration" (reporting suspect transactions, storing documents, internal control), which is intended to prevent and impede money laundering and terrorist financing.

In accordance with the provisions of article 648 bis Italian Criminal Code, and with the provision of article 2 of Legislative Decree no. 231/2007, money laundering refers to: the conversion, transfer, concealment or the purchase, possession or use of assets in the knowledge that they

arise from criminal activity or from participation in criminal activity. Terrorist financing is defined Legislative Decree no. 109 of 22 June 2007.

The User declares that it is aware of the applicable legislation on the prevention of money laundering and terrorist financing envisaged by the Legislative Decree no. 231 of 21 November 2007.

The User declares, and accepts all liability associated with such declaration, that it is not aware of any criminal origin of any money, goods or other assets transferred for the purposes of this Capacity Agreement.

The Parties agree that any failure to comply with the provisions of this contractual clause or the failure to disclose any factual circumstances that entail a modification of the declarations issued by the User constitute a breach of this Capacity Agreement.

Consequently, the Operating Company may early terminate the Capacity Agreement in the event that the User is convicted, including in the first instance or following a plea bargain pursuant to article 444 Italian Code of Criminal Procedure, of one of the money-laundering or terrorist-financing crimes envisaged by the Legislative Decree no. 231 of 21 November 2007. A conviction of the User means the conviction of one of its employees, consultants, representatives or any other natural person that was acting in the interests or the name of the User when it engaged in the conduct that was punished under the criminal code.

In the event that the Operating Company exercises such right, it may charge all the higher costs and expenses arising or in any case associated with the early termination of this Capacity Agreement to the User.

## 7. Information and documentation

- 7.1. The User agrees to provide the Operating Company with any information and documentation required for the performance of the Capacity Agreement, guaranteeing the truthfulness, accuracy, integrity and authenticity thereof
- 7.2. As regards any personal data of which the Parties may become aware subsequent to the execution and during the performance of the Agreement, they declare and warrant that such data will be processed in accordance with the personal data protection rules contained in EU Regulation 679/2016 ("GDPR"). In this regard, the User acknowledges that it has viewed the information on the processing of personal data published by the Operating Company in the dedicated section on its website and it agrees to provide it to any persons belonging to its organisation whose data will be processed by the Operating Company for the purposes of the performance of the Regasification Service, declaring that it will fully indemnify and hold harmless the Operating Company from and against any request, objection and/or adverse consequence that it may receive and/or suffer.

#### 8. Miscellaneous

Any matters not expressly envisaged by the Capacity Agreement shall be regulated by the provisions of the Regasification Code and the ARERA resolutions, where applicable

## 9. Notices

The telephone number, postal and e-mail address of each Party are as follows (unless notified otherwise)

The Operating Company: OLT Offshore LNG Toscana S.p.A. Via Gaetano D'Alesio, 2 57126 Livorno Fax +39 0586 210922 email commercial@legalmail.it Certified email oltcommercial@legalmail.it For the attention of the Commercial Manager Marika Venturi

The User: [User] [Address] [Postcode][City/town] Fax [Fax] email [email] Certified email [Certified email] For the attention of [For the attention of]

[Place], [DD/MM/YYYY]

OLT Offshore LNG Toscana

[User]

The User declares that it consents to and has read and accepted all the applicable provisions of the Regasification Code and, in particular, pursuant to articles 1341 and 1342 Italian Civil Code, the User declares that it has examined the above terms and conditions and that it is aware of and specifically approves the following Clauses of the Regasification Code: 1.4.1.2b) (*"Interruptible Redelivery Service"*), 1.4.16 (*"Waiver of Regasification Service or Small Scale Service"*), 1.4.3 (*"Assignment to* 

Terminal Lenders"), 2.1.3 ("Consequences of failure to meet the Service Conditions"), 3.1.1 ("Credit Requirements for the Continuous Regasification Service"), 3.1.3 ("Variation of the Credit Requirements"), 3.1.5 ("Replacement and enforcement of the financial guarantees"), 3.1.8 ("Insurance Requirements"), 3.2.1 ("No assignment"), 3.2.3 ("Release of regasification capacity"), 3.3.3 ("User's Changes to Ninety Day Unloading and Loading Schedule"), 3.3.4 ("Operating Company Changes to Annual Unloading and Loading Schedule and to Ninety Day Unloading and Loading Schedule"), 3.3.5 and 3.3.6 ("Charge variance"), Chapter 3.8 ("Variations of the Regasification Service"), 5.2.2.6 ("Invoicing disputes"), 5.2.2.7 ("Late payment"), 5.3.1.1 ("The User's and Small Scale User's liability in respect of the Operating Company"), 5.3.1.2 ("Liability for loss of revenue"), 5.3.1.3 ("The Operating Company's liability in respect of the User and the Small Scale User"), 5.3.1.4 ("Liability to third party owners of LNG"), 5.3.1.6 ("Limitations of Liability"), 5.3.3.1 ("Withdrawal by User"), 5.3.3.3("Waiver of Italian Civil Code rights"), 5.3.4.4 ("User's and Small Scale User's rights and obligations"), 5.4.2.8 ("Time limits").

[Place], [DD/MM/YYYY]

As a sign of acceptance

[User]

Attachment: photocopy of the signatories' identity documents

## Annex 5: Regasified Quantities Allocation Rule form

OLT Offshore LNG Toscana Via Gaetano D'Alesio 2 57126 Livorno – Italy attn. Commercial Manager Marika Venturi oltcommercial@legalmail.it commercial@oltoffshore.it Fax: 0039 0586210922

# Sent by certified email or fax

# Re: Notice of rule for allocating regasified quantities

This form for giving notice of the rule for allocating regasified quantities is executed [•] by and between [•], tax registration no. [•], VAT no. [•], registered in the companies' register of [•] and having registered office in [•] ("**regasification User**") and [•], tax registration no. [•], VAT no. [•], registered in the companies' register of [•] and having registered office in [•] ("**transportation User**").

## Whereas

- a) The regasification User is not a transportation user (as defined in the Regasification Code) since it does not have an existing transportation agreement with Snam Rete Gas S.p.A. on the execution date of this form.
- b) By signing this form, the regasification User agrees to comply with the obligations envisaged by Clause3.4.1.8, and to hold the Operating Company harmless pursuant to the provisions of Clause 2.1.1 of the Regasification Code;
- c) The transport User intends to receive the quantities of Gas that will be redelivered as a result of the Regasification Service envisaged by the agreement between the regasification User and the Operating Company.

Now, therefore, the regasification User and the transportation User hereby give notice that the quantities of gas that will be regasified in relation to the regasification capacity which has been awarded to the User will be redelivered at the Redelivery Point or at the Virtual Exchange Point to the transportation service User.

The transportation User accepts that the quantities redelivered on a daily basis are those communicated by the regasification User according to the procedures envisaged by the Regasification Code and authorises the Operating Company to perform transactions at the Virtual Exchange Point on its behalf pursuant to Clause 3.1.7 of the Regasification Code. The regasification User and the transportation User hereby accept that the regasified quantities will be used by the Operating Company to fulfil all its envisaged obligations in respect of Snam Rete Gas S.p.A.

In fulfilment of the obligation of the regasification User under Clause 3.1.7 of the Regasification Code, the transportation User which signed this communication may register on behalf of the regasification User a sale transaction at the Virtual Exchange Point, without prejudice to the liability of the regasification User also for the case of transportation User's default.

The transportation User accepts the Regasification Code, the relevant parts of which will apply to it, and hereby authorizes the Operating Company to include the relevant sales transactions in the Virtual Exchange Point on behalf of the transportation User in the event the regasification User would inform the Operating Company pursuant to Clause 3.1.7d) of the Regasification Code that the relevant guarantee under art. 3.1.7 will be released by the latter in substitution for the regasification User.

[Place], [DD/MM/YYYY]

[regasification User]

[transportation User]

The regasification User and the transportation User declare that they consent to and have read and accepted all the applicable provisions of the Regasification Code and, in particular, pursuant to articles 1341 and 1342 Italian Civil Code, the regasification User and the transportation User declare that they have examined the above terms and conditions and that they are aware of and specifically approve the following Clauses of the Regasification Code: 1.4.1.2b) (*"Interruptible Redelivery Service"*), 1.4.1.6 (*"Waiver of Regasification Service or Small Scale Service"*), 1.4.3 (*"Assignment to Terminal Lenders"*), 2.1.3 (*"Consequences of failure to meet the Service Conditions"*), 3.1.1 (*"Credit Requirements for the Continuous Regasification Service"*), 3.1.3 (*"Variation of the Credit Requirements"*), 3.1.5 (*"Replacement and enforcement of the financial guarantees"*), 3.1.8 (*"Insurance Requirements"*), 3.2.1 (*"No assignment"*), 3.2.3 (*"Release of regasification capacity"*), 3.3.3 (*"User's Changes to Ninety Day Unloading and Loading Schedule"*), 3.3.4 (*"Operating Company Changes to Annual Unloading and Loading Schedule"*), 3.3.6 (*"Charge Schedule"*), 3.3.6 (*"Charge Schedule and to Ninety Day Unloading and Loading Schedule"*), 3.3.5 and 3.3.6 (*"Charge Schedule"*), 3.3.6 (*"Charge Schedule and to Ninety Day Unloading and Loading Schedule"*), 3.3.5

variance"), Chapter 3.8 ("Variations of the Regasification Service"), 5.2.2.6 ("Invoicing disputes"), 5.2.2.7 ("Late payment"), 5.3.1.1 ("The User's and Small Scale User's liability in respect of the Operating Company"), 5.3.1.2 ("Liability for loss of revenue"), 5.3.1.3 ("The Operating Company's liability in respect of the User and the Small Case User"), 5.3.1.4 ("Liability to third party owners of LNG"), 5.3.1.6 ("Limitations of Liability"), 5.3.3.1 ("Withdrawal by User"), 5.3.3.3 ("Waiver of Italian Civil Code rights"), 5.3.4.4 ("User's and Small Scale User's rights and obligations"), 5.4.2.8 ("Time limits").

[Place], [DD/MM/YYYY]

[regasification User]

[transportation User]

# Annex 6: Transfer of LNG between Users form

OLT Offshore LNG Toscana Via Gaetano D'Alesio 2 57126 Livorno – Italy attn. Commercial Manager Marika Venturi oltcommercial@legalmail.it <u>commercial@oltoffshore.it</u> Fax: 0039 0586210922

Sent by certified email or fax

## Re: Transfer of LNG between Users

This form for the transfer of LNG between Terminal Users ("**Transfer**") is executed on [•] by and between [•], tax registration no. [•], VAT no. [•], registered in the companies' register of [•] and having registered office in [•] ("**Transferring User**"), [•], tax registration no. [•], VAT no. [•], registered in the companies' register of [•] and having registered office in [•] ("**Transferee User**") and **OLT Offshore LNG Toscana S.p.A.**, a company incorporated under Italian law, tax registration no. and VAT no. 07197231009, registered in the companies' register of Milan and having registered office in via Passione 8, 20122 Milan ("**Operating Company**").

#### Whereas

- a) The Transferring User and the Transferee User are Users of the Terminal having entered into a Capacity Agreement with the Operating Company and having been awarded regasification capacity following one of the relevant allocation processes.
- b) This Transfer does not exempt the Transferring User and the Transferee User from any obligations or liability arising in the context of their respective Capacity Agreements prior to the execution of this transfer form. In particular, the Transfer does not modify the obligations and the liability of the Transferring User and the Transferee User envisaged by Clause 3.4.1.4 of the Regasification Code (where applicable).
- c) This Transfer does not assign third-party rights in relation to the Transfer itself.
- d) The Transfer will be valid if sent to the Operating Company by the deadline envisaged by Clause
   3.5.2c) of the Regasification Code unless otherwise notified by the Operating Company itself.

Now, therefore, the Transferring User and the Transferee User agree as follows:

## 1. Subject matter and effectiveness of the Transfer

1.1. This transfer form regards the transfer by the Transferring User to the Transferee User of a quantity of LNG pursuant to Clause 3.5.2c) of the Regasification Code and, as a result, the Operating Company's making available and the Transferee User's acquisition of such quantity of LNG.

- 1.2. The quantity of LNG referred to in this Transfer will be expressed in MWh rounded off to three decimal places.
- 1.3. The Transfer will take effect as of 06:00 hours on the Gas Day indicated in the table contained in the subsequent article 2.1 and will modify the Inventory of the interested Users.

# 2. LNG Transfer Request

2.1. The Transferring User and the Transferee User request permission to transfer a quantity of LNG as stated below:

Gas Day on which Transfer takes effect [DD/MM/YYYY]	Quantity to be Transferred [MWh]	Transferring User	Transferee User

[Place], [DD/MM/YYYY]

# [Transferring User]

# [Transferee User]

The regasification User and the transportation User declare that they consent to and have read and accepted all the applicable provisions of the Regasification Code and, in particular, pursuant to articles 1341 and 1342 Italian Civil Code, the regasification User and the transportation User declare that they have examined the above terms and conditions and that they are aware of and specifically approve the following Clauses of the Regasification Code: 1.4.1.2b) ("Interruptible Redelivery Service"), 1.4.1.6 ("Waiver of Regasification Service or Small Scale Service"), 1.4.3 ("Assignment to Terminal Lenders"), 2.1.3 ("Consequences of failure to meet the Service Conditions"), 3.1.1 ("Credit Requirements for the Continuous Regasification Service"), 3.1.3 ("Variation of the Credit Requirements"), 3.1.5 ("Replacement and enforcement of the financial guarantees"), 3.1.8 ("Insurance requirements"), 3.2.1 ("No assignment"), 3.2.3 ("Release of regasification capacity"), 3.3.3 ("User's Changes to Ninety Day Unloading and Loading Schedule"), 3.3.4 ("Operating Company Changes to Annual Unloading and Loading Schedule and to Ninety Day Unloading and Loading Schedule"), 3.3.5 and 3.3.6 ("Charge variance"), Chapter 3.8 ("Variations of the Regasification Service"), 5.2.2.6 ("Invoicing disputes"), 5.2.2.7 ("Late payment"), 5.3.1.1 ("The User's and Small Scale User's liability in respect of the Operating Company"), 5.3.1.2 ("Liability for loss of revenue"), 5.3.1.3 ("The Operating Company's liability in respect of the User and Small Scale User"), 5.3.1.4 ("Liability to third party owners of LNG"), 5.3.1.6 ("Limitations of Liability"), 5.3.3.1 ("Withdrawal by User"), 5.3.3.3 ("Waiver of Italian Civil Code rights"), 5.3.4.4 ("User's and Small Scale User's rights and obligations"), 5.4.2.8 ("Time limits").

[Place], [DD/MM/YYYY]

[Transferring User]

[Transferee User]

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# Annex 6AS: Form for the transfer of LNG to Small Scale Users in storage

OLT Offshore LNG Toscana Via Gaetano D'Alesio 2 57126 Livorno – Italy attn. Commercial Manager Marika Venturi oltcommercial@legalmail.it commercial@oltoffshore.it Fax: 0039 0586210922

#### Sent by certified email or fax

## Re: Transfer of LNG to Small Scale Users in storage

This form for the transfer of LNG to Small Scale Users ("**Transfer**") is executed on [•] by and between [•], tax registration no. [•], VAT no. [•], registered in the companies' register of [•] and having registered office in [•] ("**Transferring User**"), [•], tax registration no. [•], VAT no. [•], registered in the companies' register of [•] and having registered office in [•] ("**Transferee User**") and **OLT Offshore LNG Toscana S.p.A.**, a company incorporated under Italian law, tax registration no. and VAT no. 07197231009, registered in the companies' register of Milan and having registered office in via Passione 8, 20122 Milan ("**Operating Company**").

## Whereas

- a) The Transferring User is a User of the Terminal having entered into a Capacity Agreement with the Operating Company and having been awarded regasification capacity following one of the relevant allocation processes in the Month of [•] of the Year [•] (or is the holder of Extended Storage in the Month of [•] of the Year [•]).
- b) The Transferee User is both a User of the Terminal having entered into a Capacity Agreement with the Operating Company and having been awarded regasification capacity in the same Month, and a Small Scale User having entered into a Small Scale Agreement with the Operating Company and having been awarded Small Scale Slots in the same Month of the same Year following the relevant allocation processes (or is the holder of Extended Storage in the same Month of the same Year).
- c) This Transfer does not exonerate the Transferring User and the Transferee User from their obligations or liability under their respective Capacity Agreements or Small Scale Agreements before this transfer form has been notified to the Operating Company pursuant to Clause 3.6.6. In particular, the Transfer does not amend the obligations and liability of the Transferring User and the Transferee User envisaged by Clause 3.4.1.4 of the Regasification Code (of applicable).
- d) This Transfer does not assign right to third-parties in relation to the Transfer itself.

Now, therefore, the Transferring User and the Transferee User agree as follows:

# 1. Subject matter and effectiveness of the Transfer

- 1.1. This transfer form regards the Transfer by the Transferring User to the Transferee User of a quantity of LNG pursuant to Clause 3.6.6.1 of the Regasification Code and, as a result, the Operating Company's making available and the Transferee User's acquisition of such quantity of LNG so that the latter may be used by the Transferee User for the Small Scale Service.
- 1.2. The quantity of LNG referred to in this Transfer will be expressed in liquid m<sup>3</sup>. The Transferring User acknowledges and accepts that, once the LNG referred to in this transfer has been delivered to the Transferee User, the Operating Company will deduct from the Transferring User's quantities of LNG the corresponding quantity of LNG expressed in MWh as stated in the loading report available after the delivery of LNG to the Transferee User. The Transferring User and the Transferee User declare that they are aware, and, as a result, will hold the Operating Company harmless, that the quantity of LNG intended for loading will be withdrawn by the Operating Company from the quantities present in the tanks of the Terminal at the time of loading and that, therefore, the quality of the LNG involved in the Small Scale Service may be different from the LNG that is actually Unloaded.
- 1.3. As a result of the notification of this transfer form to the Operating Company and provided that it is duly completed, signed and notified to the Operating Company in accordance with Clause 3.6.6.1, the Transferee User will be deemed by the Operating Company to be the owner of the quantity of transferred LNG indicated below to all intents and purposes starting from the date on which this form is sent to the Operating Company.
- 1.4. In the event that the notification of this transfer form to the Operating Company cannot produce effects due to the breach of the deadline for notification envisaged by the Regasification Code, because it is incomplete, because it is incorrect or for any other reason, the Operating Company will be entitled to consider it automatically ineffective and as if it had never been notified, subject only to the Operating Company's obligation to promptly inform the Transferring User and the Transferee User.
- 1.5. In any case, the effectiveness of this transfer, and the Operating Company's associated obligation to load the relevant quantities of LNG on to the Small Scale Carrier, are subject to the Transferring User effectively having GNL at its disposal at the time when the Transferee User loads the LNG in the context of the Small Scale Service.

# 2. LNG Transfer Request

2.1. The Transferring User and the Transferee User inform the Operating Company of the transfer of ownership and, therefore, the transfer by the Transferring User to the Transferee User of the quantities of LNG stated below:

Courtesy English Translation (not binding – only the Italian version is binding) Annex 6AS: Form for the transfer of LNG to Small Scale Users in storage

Quantity to be	Transferring	Transferee
transferred [m <sup>3</sup> liq]	User	User

# 3. Obligations associated with the transfer of LNG

3.1. The Transferee User acknowledges that it is required to load the LNG referred to in this transfer in accordance with the timing and procedures envisaged by the Regasification Code and the Small Scale Agreement. In the event that the Transferee User fails to load the LNG referred to in this transfer in the context of the Small Scale Service and, as a result, the Operating Company is required to regasify the relevant quantity of LNG in accordance with the provisions of the Regasification Code, the Operating Company may to such end use the transport capacity booked on the National Transmission System on behalf of the Transferee User.

3.2 If the Transferring User has not yet Unloaded the quantity of LNG referred to in the transfer at the Terminal for the benefit of the Transferee User, in the case in which the Transferring User has failed to Unload, the latter will be required to indemnify the other Users of the Terminal that have been affected by the transfer, by in particular ensuring that the quantities of LNG corresponding to the LNG referred to in this transfer are delivered to them, to such end authorising the Operating Company to issue at its own expense the necessary sales transactions at the Virtual Exchange Point in favour of them.

[Place], [DD/MM/YYYY]

[Transferring User]

[Transferee User]

# Courtesy English Translation (not binding – only the Italian version is binding) Annex 6AS: Form for the transfer of LNG to Small Scale Users in storage

The regasification User and the transportation User declare that they consent to and have read and accepted all the applicable provisions of the Regasification Code and, in particular, pursuant to articles 1341 and 1342 Italian Civil Code, the regasification User and the transportation User declare that they have examined the above terms and conditions and that they are aware of and specifically approve the following Clauses of the Regasification Code: 1.4.1.2.b ("Interruptible Redelivery Service"), 1.4.1.6 ("Waiver of Regasification Service or Small Scale Service"), 1.4.3 ("Assignment to Terminal Lenders"), 2.1.3 ("Consequences of failure to meet the Service Conditions"), 3.1.1 ("Credit Requirements for the Continuous Regasification Service"), 3.1.3 ("Variation of the Credit Requirements"), 3.1.5 ("Replacement and enforcement of the financial guarantees"), 3.1.8 ("Insurance requirements"), 3.2.1 ("No assignment"), 3.2.3 ("Release of regasification capacity"), 3.3.3 ("User's Changes to Ninety Day Unloading and Loading Schedule"), 3.3.4 ("Operating Company Changes to Annual Unloading and Loading Schedule and to Ninety Day Unloading and Loading Schedule"), 3.3.5 and 3.3.6 ("Charge variance"), Chapter 3.8 ("Variations of the Regasification Service"), 5.2.2.6 ("Invoicing disputes"), 5.2.2.7 ("Late payment"), 5.3.1.1 ("The User's and Small Scale User's liability in respect of the Operating Company"), 5.3.1.2 ("Liability for loss of revenue"), 5.3.1.3 ("The Operating Company's liability in respect of the User and Small Scale User"), 5.3.1.4 ("Liability to third party owners of LNG"), 5.3.1.6 ("Limitations of Liability"), 5.3.3.1 ("Withdrawal by User"), 5.3.3.3 ("Waiver of Italian Civil Code rights"), 5.3.4.4 ("User's and Small Scale User's rights and obligations"), 5.4.2.8 ("Time limits").

[Place], [DD/MM/YYYY]

[Transferring User]

[Transferee User]

\_\_\_\_\_

#### Annex 6BS: Form for the transfer of LNG to Small Scale Users at the flange

OLT Offshore LNG Toscana Via Gaetano D'Alesio 2 57126 Livorno – Italy attn. Commercial Manager Marika Venturi <u>oltcommercial@legalmail.it</u> <u>commercial@oltoffshore.it</u> Fax: 0039 0586210922

Sent by certified email or fax

#### Re: Transfer of LNG to Small Scale Users at the flange

This form for the transfer of LNG to Small Scale Users ("**Transfer**") is executed on [•] by and between [•], tax registration no. [•], VAT no. [•], registered in the companies' register of [•] and having registered office in [•] ("**Transferring User**"), [•], tax registration no. [•], VAT no. [•], registered in the companies' register of [•] and having registered office in [•] ("**Transferee User**") and **OLT Offshore LNG Toscana S.p.A.**, a company incorporated under Italian law, tax registration no. and VAT no. 07197231009, registered in the companies' register of Milan and having registered office in via Passione 8, 20122 Milan ("**Operating Company**").

#### Whereas

- a) The Transferring User is a User of the Terminal having entered into a Capacity Agreement with the Operating Company and having been awarded regasification capacity following one of the relevant allocation processes in the Month of [•] of the Year [•] (or is the holder of Extended Storage in the Month of [•] of the Year [•]).
- b) The Transferee User is a Small Scale User having entered into a Small Scale Agreement with the Operating Company and having been awarded Small Scale Slots in the same Month of the same Year following the relevant allocation processes (or not after the deadline for the termination of the Extended Storage Service provided to the Transferee User in relation to the quantities of LNG referred to in this transfer).
- c) This Transfer does not exonerate the Transferring User and the Transferee User from their obligations or liability under their respective Capacity Agreements or Small Scale Agreements before this transfer form has been notified to the Operating Company pursuant to Clause 3.6.6. In particular, the Transfer does not amend the obligations and liability of the Transferring User and the Transferee User envisaged by Clause 3.4.1.4 of the Regasification Code (if applicable).
- d) This Transfer does not assign rights to third parties in relation to the Transfer itself.

Now, therefore, the Transferring User and the Transferee User agree as follows:

#### 1. Subject matter and effectiveness of the Transfer

- 1.1. This transfer form regards the Transfer by the Transferring User to the Transferee User of a quantity of LNG pursuant to Clause 3.6.6.2 of the Regasification Code and, as a result, the Operating Company's making available and the Transferee User's acquisition of such quantity of LNG so that the latter may be used by the Transferee User for the Small Scale Service.
- 1.2. The quantity of LNG referred to in this Transfer will be expressed in liquid m<sup>3</sup>. The Transferring User acknowledges and accepts that, once the LNG referred to in this transfer has been delivered to the Transferee User, the Operating Company will deduct from the Transferring User's quantities of LNG the corresponding quantity of LNG expressed in MWh as stated in the loading report available after the delivery of LNG to the Transferee User. The Transferring User and the Transferee User declare that they are aware, and, as a result, will hold the Operating Company harmless, that the quantity of LNG intended for loading will be withdrawn by the Operating Company from the quantities present in the tanks of the Terminal at the time of loading and that, therefore, the quality of the LNG involved in the Small Scale Service may be different from the LNG that is actually Unloaded.
- 1.3. As a result of the notification of this transfer form to the Operating Company and provided that it is duly completed, signed and notified to the Operating Company in accordance with Clause 3.6.6.2, the Transferee User will be entitled to load the quantities of LNG referred to in the transfer in the context of the Small Scale Slot of which it is the holder.
- 1.4. The ownership of the LNG referred to in this transfer will only be transferred to the Transferee User at the moment at which and provided that the Transferee User has loaded the quantities of LNG referred to in this transfer on to the Small Scale Carrier in the context of the Small Scale Slots of which it is the holder, it being understood that if it fails to load such quantities of LNG, they will remain under the ownership of the Transferring User as if this notice had not been sent and the relevant transfer will have no effect.
- 1.5. In the event that the notification of this transfer form to the Operating Company cannot produce effects due to the breach of the deadline for notification envisaged by the Regasification Code, because it is incomplete, because it is incorrect or for any other reason, the Operating Company will be entitled to consider it automatically ineffective and as if it had never been notified, subject only to the Operating Company's obligation to promptly inform the Transferring User and the Transferee User.
- 1.6. In any case, the effectiveness of this transfer, and the Operating Company's associated obligation to load the relevant quantities of LNG on to the Small Scale Carrier, are subject to the Transferring User effectively having GNL at its disposal at the time when the Transferee User loads the LNG in the context of the Small Scale Service.

## 2. LNG Transfer Request

2.1. The Transferring User and the Transferee User inform the Operating Company of the intention to transfer the ownership and, therefore, to carry out the transfer by the Transferring User to the Transferee User of the quantities of LNG stated below:

Quantity to be	Transferring	Transferee
transferred [m <sup>3</sup> liq]	User	User

# 3. Obligations associated with the transfer of LNG

3.1. The Transferee User acknowledges that it is required to load the LNG referred to in this transfer in accordance with the timing and procedures envisaged by the Regasification Code and the Small Scale Agreement. In the event that the Transferee User fails to load the LNG referred to in this transfer in the context of the Small Scale Service, the LNG tobe transferred will remain under the ownership of the Transferee User and the Operating Company will regasify the relevant quantity of LNG in accordance with the provisions of the Regasification Code, by using the transport capacity booked on the National Transmission System on behalf of the Transferring User.

3.2 If the Transferring User has not yet Unloaded the quantity of LNG referred to in the transfer at the Terminal for the benefit of the Transferee User, in the case in which the Transferring User has failed to Unload, the latter will be required to indemnify the other Users of the Terminal that have been affected by the transfer, by in particular ensuring that the quantities of LNG corresponding to the LNG referred to in this transfer are delivered to them, to such end authorising the Operating Company to issue at its own expense the necessary sales transactions at the Virtual Exchange Point in favour of them.

[Place], [DD/MM/YYYY]

[Transferring User]

[Transferee User]

The regasification User and the transportation User declare that they consent to and have read and accepted all the applicable provisions of the Regasification Code and, in particular, pursuant to articles 1341 and 1342 Italian Civil Code, the regasification User and the transportation User declare that they have examined the above terms and conditions and that they are aware of and specifically approve the

following Clauses of the Regasification Code: 1.4.1.2.b ("Interruptible Redelivery Service"), 1.4.1.6 ("Waiver of Regasification Service or Small Scale Service"), 1.4.3 ("Assignment to Terminal Lenders"), 2.1.3 ("Consequences of failure to meet the Service Conditions"), 3.1.1 ("Credit Requirements for the Continuous Regasification Service"), 3.1.3 ("Variation of the Credit Requirements"), 3.1.5 ("Replacement and enforcement of the financial guarantees"), 3.1.8 ("Insurance requirements"), 3.2.1 ("No assignment"), 3.2.3 ("Release of regasification capacity"), 3.3.3 ("User's Changes to Ninety Day Unloading and Loading Schedule"), 3.3.4 ("Operating Company Changes to Annual Unloading and Loading Schedule"), 5.3.4 ("Operating Company Changes to Annual Unloading and Loading Schedule and to Ninety Day Unloading and Loading Schedule"), 5.3.1.1 ("The User's and Small Scale User's liability in respect of the Operating Company"), 5.3.1.2 ("Liability for loss of revenue"), 5.3.1.3 ("The Operating Company's liability in respect of the User"), 5.3.1.4 ("Liability to third party owners of LNG"), 5.3.1.6 ("Limitations of Liability"), 5.3.3.1 ("Withdrawal by User"), 5.3.3.3 ("Waiver of Italian Civil Code rights"), 5.3.4.4 ("User's and Small Scale User's Italian Civil Code rights"), 5.3.4.4 ("User's and Small Scale User's Italian Civil Code rights"), 5.3.4.4 ("User's and Small Scale User's Italian Civil Code rights"), 5.3.4.4 ("User's and Small Scale User's Italian Civil Code rights"), 5.3.4.4 ("User's and Small Scale User's Italian Civil Code rights"), 5.3.4.4 ("User's and Small Scale User's Italian Civil Code rights"), 5.3.4.4 ("User's and Obligations"), 5.4.2.8 ("Time limits").

Place], [DD/MM/YYYY]

[Transferring User]

[Transferee User]

## Annex 6CS: Form for the application to access the Virtual Liquefaction Service for Small Scale Users

OLT Offshore LNG Toscana Via Gaetano D'Alesio 2 57126 Livorno – Italy attn. Commercial Manager Marika Venturi oltcommercial@legalmail.it commercial@oltoffshore.it Fax: 0039 0586210922

Sent by certified email or fax

#### Re: Application to access the Virtual Liquefaction Service for Small Scale Users

This form for the request to access the Virtual Liquefaction Service is submitted by [•], tax registration no. [•], VAT no. [•], registered in the companies' register of [•] and having registered office in [•], in the person of its legal representative(s) [•] ("Applicant"), to OLT Offshore LNG Toscana S.p.A., a company incorporated under Italian law, tax registration no. and VAT no. 07197231009, registered in the companies' register of fice in via Passione 8, 20122 Milan ("Operating Company").

## Whereas

- a) The Applicant is a Small Scale User and a Transportation User who, specifically, executed a Small Scale Agreement with the Operating Company in accordance with the Regasification Code for the Terminal, and was awarded at least one Small Scale Slot.
- b) The Applicant intends to access the Virtual Liquefaction Service referred to in Clause 3.5.4 of the Regasification Code in respect of the Small Scale Slots awarded and indicated below and, to that end, it intends to submit this application to the Operating Company for acceptance.
- c) The Regasification Code definitions also apply to this application for access to the Virtual Liquefaction Service.

Now, therefore, the Applicant represents and undertakes as follows:

## 1. Application for access to the Virtual Liquefaction Service

1.1. The Applicant requests the Operating Company for access to the Virtual Liquefaction Service for the following Small Scale Slots awarded:

	Relevant	Date scheduled	Quantities
Gas Year	ear Month and	for the Small	[mcliq]
[уууу/уууу]	Year [mm/yyyy]	Scale Slot	
		[dd/mm/yyyy]	

## 2. Transactions at the Virtual Exchange Point

2.1. The Applicant undertakes to maintain the necessary capacity of its financial guarantees to cover the system provided for in Chapter 5 of the Network Code and to promptly replenish them where they are insufficient to carry out the sales transactions at the Virtual Exchange Point for the corresponding volume of LNG specified to the loading Operating Company under Clause 3.5.4 within the scope of the Small Scale Slots specified above; to this end, the Applicant expressly grants the Operating Company the power to issue in its name and/or on its behalf such transactions at the Virtual Exchange Point for the corresponding volumes of LNG intended for loading, or actually loaded, within the scope of the Small Scale Slots specified above.

## 3. Obligations associated with the transfer of LNG

3.1. The Applicant shall acquire ownership of the LNG intended for loading on the Small Scale Slot(s) for which transactions have been issued in accordance with Clause 3.5.4(vi), resulting from and upon loading on the Small Scale Carrier.

[Place], [DD/MM/YYYY]

Applicant

For Acceptance Livorno, [•]

## OLT Offshore LNG Toscana S.p.A.

The legal representative(s)

Attachment: photocopy of the signatory' identity document

## Annex 6DS: Form for the application to access the Virtual Liquefaction Service for Users and Transportation Service Users

OLT Offshore LNG Toscana Via Gaetano D'Alesio 2 57126 Livorno – Italy attn. Commercial Manager Marika Venturi <u>oltcommercial@legalmail.it</u> <u>commercial@oltoffshore.it</u> Fax: 0039 0586210922

Sent by certified email or fax

Re: Application to access the Virtual Liquefaction Service for Users and Transportation Service Users

This form for the request to access the Virtual Liquefaction Service is submitted by [•], tax registration no. [•], VAT no. [•], registered in the companies' register of [•] and having registered office in [•], in the person of its legal representative(s) [•] ("Applicant"), to OLT Offshore LNG Toscana S.p.A., a company incorporated under Italian law, tax registration no. and VAT no. 07197231009, registered in the companies' register of fice in via Passione 8, 20122 Milan ("Operating Company").

## Whereas

- a) The Applicant is
  - i a User who, specifically, executed a Small Scale Agreement with the Operating Company, and was awarded at least one Delivery Slot; or
  - a Transportation Service User who executed the Network Code and, although not a User, by signing this form for the application to access the Virtual Liquefaction Service, accepted the Operating Company Regasification Code, and who submitted a guarantee for EUR [•], establishing a non-interest-bearing deposit to the Operating Company's benefit as a condition to access the Virtual Liquefaction Service.
- b) The Applicant intends to access the Virtual Liquefaction Service referred to in Clause 3.5.5 of the Regasification Code.
- c) The Regasification Code definitions also apply to this application for access to the Virtual Liquefaction Service.

Now, therefore, the Applicant represents and undertakes as follows:

1. Application for access to the Virtual Liquefaction Service

- 1.1. The Applicant requests the Operating Company for access to the Virtual Liquefaction Service under the Regasification Code.
- 1.2. The Applicant establishing a non-interest-bearing deposit as guarantee, referred to in point a)ii) of the recitals, authorises the Operating Company to fulfil any claim it considers having against the Applicant hereunder.

## 2. Transactions at the Virtual Exchange Point

2.1. The Applicant undertakes to maintain the necessary capacity of its financial guarantees to cover the system provided for in Chapter 5 of the Network Code and to promptly replenish them where they are insufficient to carry out the sales transactions at the Virtual Exchange Point for the corresponding volume of LNG specified to the Operating Company under Clause 3.5.5iii); to this end, the Applicant expressly grants the Operating Company the power to issue in its name and/or on its behalf such transactions at the Virtual Exchange Point for the corresponding volumes of LNG intended for loading, or actually loaded, within the scope of the Small Scale Slots specified above.

## 3. Transfer of LNG ownership

3.1. The Applicant shall acquire ownership of the LNG intended for regasification under Clause 3.5.5(v), resulting from and upon issuance of the relevant transactions at the Virtual Exchange Point.

## 4. Application of the Regasification Code

- 4.1. The Applicant who is a Transportation Service User in accordance with point a)ii) of the recitals hereby represents that it has read and accepted all the applicable provisions set out in the Regasification Code, which shall also apply to it in light of their meaning and context and, more specifically, with regard to Clauses1, 3, 5 and 6 of the Regasification Code and Clauses 5, 6, 7 and 8 of the Capacity Agreement, Annex 4 to the Regasification Code.
- 4.2. The post and email addresses of the Parties are (unless otherwise notified):

 For the Operating Company
 OLT Offshore LNG Toscana S.p.A.

 Via Gaetano D'Alesio, 2
 57126 Livorno

 Fax
 +39 0586 210922

 Email address
 commercial@oltoffshore.it

 Certified email address
 oltcommercial@legalmail.it

 Attn.of the Commercial Manager Marika Venturi

For the Applicant who is a User the same address specified in the Capacity Agreement shall be used, whereas, for notices to the User who is a Transportation Service User under point a)ii) of the recitals, notices shall be sent and received at the following addresses:

For the Applicant

[Applicant] [Address] [Post Code] [City] Fax [Fax] Email address [Email address]

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Certified email address [Certified email address] Attn. of [Attn. of]

Livorno, [•]

[Applicant]

The Applicant who is a Transportation Service User under point a)ii) of the recitals, pursuant to articles 1341 and 1342 Italian Civil Code, declares that it has examined the above terms and conditions and that it is aware of and specifically approve the following Clauses of the Regasification Code: 1.4.1.2.b ("Interruptible Redelivery Service"), 1.4.1.6 ("Waiver of Regasification Service or Small Scale Service"), 1.4.3 ("Assignment to Terminal Lenders"), 2.1.3 ("Consequences of failure to meet the Service Conditions"), 3.1.1 ("Credit Requirements for the Continuous Regasification Service"), 3.1.3 ("Variation of the Credit Requirements"), 3.1.5 ("Replacement and enforcement of the financial guarantees"), 3.1.8 ("Insurance requirements"), 3.2.1 ("No assignment"), 3.2.3 ("Release of regasification capacity"), 3.3.3 ("User's Changes to Ninety Day Unloading and Loading Schedule"), 3.3.4 ("Operating Company Changes to Annual Unloading and Loading Schedule and to Ninety Day Unloading and Loading Schedule"), 3.3.5 and 3.3.6 ("Charge variance"), Chapter 3.8 ("Variations of the Regasification Service"), 5.2.2.6 ("Invoicing disputes"), 5.2.2.7 ("Late payment"), 5.3.1.1 ("The User's and Small Scale User's liability in respect of the Operating Company"), 5.3.1.2 ("Liability for loss of revenue"), 5.3.1.3 ("The Operating Company's liability in respect of the User and Small Scale User"), 5.3.1.4 ("Liability to third party owners of LNG"), 5.3.1.6 ("Limitations of Liability"), 5.3.3.1 ("Withdrawal by User"), 5.3.3.3 ("Waiver of Italian Civil Code rights"), 5.3.4.4 ("User's and Small Scale Users's rights and obligations"), 5.4.2.8 ("Time limits").

Livorno, [•]

For Acceptance [Applicant who is a Transportation Service User under point a)ii) of the recitals]

For Acceptance Livorno, [•]

## OLT Offshore LNG Toscana S.p.A.

The legal representative(s)

Attachment: photocopy of the signatories' identity documents

Courtesy English Translation (not binding – only the Italian version is binding) Annex 6DS: form for the application to access the Virtual Liquefaction Service for Users and Transportation Service Users

#### Annex 7A1: Bank Guarantee form

#### Whereas:

- a) ......(APPLICANT)..... with registered office in the Company ..... is interested in taking part in the liquefied natural gas regasification capacity allocation processes at the "FSRU Toscana" regasification terminal or the liquefied natural gas loading service provided by the "FSRU Toscana" regasification terminal by executing the relevant regasification capacity agreement(s) or the relevant loading service agreement(s) with the Company OLT Offshore LNG Toscana S.p.A., having registered office in Milan, via Passione 8, VAT no. 07197231009 (OLT), and accepting the terms envisaged by the Regasification Code of the Terminal itself;
- b) in order to be able to participate in the allocation processes for regasification capacity or the loading service, the Company ......(APPLICANT)...... is required to provide a guarantee to secure the commitments that will be made by the Company ......(APPLICANT)....... (APPLICANT)...... in the event that, following the allocation process for regasification capacity or the loading service, it is awarded regasification capacity thereby becoming a User of the "FSRU Toscana" Terminal or it is awarded the right to use the loading service thereby becoming a Small Scale User of the "FSRU Toscana" regasification terminal;

#### Now, therefore,

1) ......(BANK)...... with head office in ...... and with address for service for the purposes of this document in ......, irrevocably agrees to pay OLT within seven (7) business days, on written demand and without any requirement of proof or justification, setting aside any exceptions, and without any requirement of prior notice, formal notice, warning or request to the Company ...... (APPLICANT)....., any such sums as OLT may request for the reason indicated above up to the amount of Euro ....... (Euro......../...).

2) The guarantee may also be enforced several times, until the maximum amount envisaged by the previous point has been exhausted.

3) .......(BANK)...... declares that it has an unsecured long-term debt rating equal to or higher than at least one of the following ratings indicated by the following credit rating agencies: (a) BBB- if indicated by Standard & Poor's Rating Service; (b) Baa3 if indicated by Moody's Investor Service Inc.; or (c) BBB if indicated by Fitch Ratings Ltd.

4) (BANK)..... declares that the provisions contained in articles 1955 and 1957 Italian Civil Code do not apply to this guarantee and that, in any case, it waives its right to enforce them.

5) This guarantee secures the fulfilment of all the obligations to which the Company ....... (APPLICANT)..... will be subject under the regasification capacity agreement(s) and the loading service agreement(s) entered into with OLT and under the Regasification Code (and as a result of the allocation of regasification capacity or loading services), both in terms of charges and in terms of compensation or indemnification.

6) The effectiveness of this guarantee is subject to the allocation of regasification capacity or the loading services at the "FSRU Toscana" regasification Terminal according to the provisions of the Regasification Code, or to the completion of the transfer of regasification capacity pursuant to Clause 3.2.2. of the Regasification Code or to the completion of the transfer of small scale slots pursuant to Clause 3.2.5.

7) This guarantee will remain in force until it is withdrawn by .....(BANK).... which shall give OLT written notice thereof (by registered mail with proof of receipt or certified email) at least one hundred twenty (120) days before the date on which this guarantee will cease to have effect, subject to the fact that if a withdrawal notice indicates a period of less than one hundred twenty (120) days, the validity of the withdrawal shall be deemed, in any case and automatically, to be extended until the one hundred twentieth (120<sup>th</sup>) day subsequent to the date on which OLT received the withdrawal notice.

8) Any disputes regarding the interpretation, validity, effectiveness and enforcement of this guarantee shall be referred exclusively to the Court of Milan.

Date and place

## STAMP AND SIGNATURE

Pursuant to article 1341 Italian Civil Code the following points are specifically approved: 1) payment on demand and waiver of exceptions, 2) enforcement procedure, 4) waiver of right to enforce the provisions of articles. 1955 and 1957 Italian Civil Code, 6) effectiveness of the guarantee, 7) validity of the guarantee, 8) Jurisdiction.

Date and place

STAMP AND SIGNATURE

#### Annex 7A1P: Bank Guarantee form – Multiannual allocations option

#### Whereas:

- ......(APPLICANT)...... with registered a) the Company office in ..... Tax reg. no. ..... VAT no. ..... on ...... is interested in taking part in the liquefied natural gas regasification capacity allocation processes at the "FSRU Toscana" regasification terminal or the liquefied natural gas loading service provided by the "FSRU Toscana" regasification Terminal by executing the relevant regasification capacity agreement(s) or the relevant loading service agreement(s) with the Company OLT Offshore LNG Toscana S.p.A., having registered office in Milan, via Passione 8, VAT no. 07197231009 (OLT), and accepting the terms envisaged by the Regasification Code of the Terminal itself;
- b) in order to be able to participate in the allocation processes for regasification capacity or the loading service, the Company ......(APPLICANT)...... is required to provide a guarantee to secure the commitments that will be made by the Company .....(APPLICANT)...... in the event that, following the allocation process for regasification capacity or the loading service, it is awarded regasification capacity thereby becoming a User of the "FSRU Toscana" Terminal or it is awarded the right to use the loading service thereby becoming a Small Scale User of the "FSRU Toscana" regasification terminal;

#### Now, therefore,

2) The guarantee may also be enforced several times, until the maximum amount envisaged by the previous point has been exhausted.

3) ......(BANK)..... declares that it has an unsecured long-term debt rating equal to or higher than at least one of the following ratings indicated by the following credit rating agencies: (a)

BBB- if indicated by Standard & Poor's Rating Service; (b) Baa3 if indicated by Moody's Investor Service Inc.; or (c) BBB if indicated by Fitch Ratings Ltd.

4) (BANK)..... declares that the provisions contained in articles 1955 and 1957 Italian Civil Code do not apply to this guarantee and that, in any case, it waives its right to enforce them.

5) This guarantee secures the fulfilment of all the obligations to which the Company ....... (APPLICANT)..... will be subject under the regasification capacity agreement(s) and the loading service agreement(s) entered into with OLT and under the Regasification Code (and as a result of the allocation of regasification capacity or loading services), both in terms of charges and in terms of compensation or indemnification.

6) The effectiveness of this guarantee is subject to the allocation of regasification capacity or loading services at the "FSRU Toscana" regasification Terminal according to the provisions of the Regasification Code, or to the completion of the transfer of regasification capacity pursuant to Clause 3.2.2 of the Regasification Code or to the completion of the transfer of small scale slots pursuant to Clause 3.2.5.

7) In relation to the obligations to which ...... (APPLICANT)..... is subject following the allocation of regasification capacity or loading services for periods in excess of one Gas Year, this guarantee will remain in force until 31 January [•], or the 31 January subsequent to the last Gas Year for which ...... (APPLICANT)..... is awarded regasification capacity or loading services.

This guarantee will be automatically renewed from year to year resulting in the corresponding postponement of the expiry date to 31 January, subject to the right of cancellation of ......(BANK)...... to be notified in writing (by registered mail with proof of receipt or certified email) to OLT at least one hundred and twenty (120) days before the end of the Gas Year to which this guarantee refers, or of each subsequent Gas year for which the guarantee has been renewed. In the case of cancellation, this guarantee may be enforced – pursuant to the Regasification Code - if ...... (APPLICANT)..... fails to replace it with a new guarantee within the time limits established by the Regasification Code.

8) Any disputes regarding the interpretation, validity, effectiveness and enforcement of this guarantee shall be referred exclusively to the Court of Milan.

#### Date and place

#### STAMP AND SIGNATURE

Pursuant to article 1341 Italian Civil Code the following points are specifically approved: 1) payment on demand and waiver of exceptions, 2) enforcement procedure, 4) waiver of right to enforce the provisions

Courtesy English Translation (not binding – only the Italian version is binding) Annex 7A1P: Bank Guarantee form – Multiannual allocations option

## [Guarantor's headed notepaper]

of articles. 1955 and 1957 Italian Civil Code, 6) effectiveness of the guarantee, 7) validity of the guarantee, 8) Jurisdiction.

Date and place

STAMP AND SIGNATURE

[Applicant's Affiliate's headed notepaper]

#### Annex 7A2: Applicant's Affiliate Guarantee form

#### Whereas

- b) the Company .......(APPLICANT)...... is interested in taking part in the liquified natural gas regasification capacity allocation processes at the "FSRU Toscana" regasification terminal or the liquefied natural gas loading service provided by the "FSRU Toscana" regasification terminal by executing the relevant regasification capacity agreement(s) or the relevant loading service agreement(s) with the Company OLT Offshore LNG Toscana S.p.A., having registered office in Milan, via Passione 8, VAT no. 07197231009 (OLT), and accepting the terms envisaged by the Regasification Code of the Terminal itself;
- c) in order to be able to participate in the allocation processes for regasification capacity or the loading service, the Company .......(APPLICANT)...... is required to provide a guarantee to secure the commitments that will be made by the Company ......(APPLICANT)...... in the event that, following the allocation process for regasification capacity or the loading service, it is awarded regasification capacity thereby becoming a User of the "FSRU Toscana" terminal or it is awarded the right to use the loading service thereby becoming a Small Scale User of the "FSRU Toscana" regasification terminal;

#### Now, therefore,

- ......(GUARANTOR)...... with head office in ...... and with address for service for the purposes of this document in ....., irrevocably agrees to pay OLT within seven (7) business days, on written demand and without any requirement of proof or justification, setting aside any exceptions, and without any requirement of prior notice, formal notice, warning or request to the Company ...... (APPLICANT)....., any such sums as OLT may request for the reason indicated above up to the amount of Euro ....... (Euro....../...).
- 2. The guarantee may also be enforced several times, until the maximum amount envisaged by the previous point has been exhausted.
- ......(GUARANTOR)...... declares that it has an unsecured long-term debt rating equal to or higher than at least one of the following ratings indicated by the following credit rating agencies: (a) BBB- if indicated by Standard & Poor's Rating Service; (b) Baa3 if indicated by Moody's Investor Service Inc.; or (c) BBB if indicated by Fitch Ratings Ltd and it agrees to immediately report if such rating falls below such levels.
- 4. ....(GUARANTOR)..... declares that the provisions contained in articles 1955 and 1957 Italian Civil Code do not apply to this guarantee and that, in any case, it waives its right to enforce them.

#### [Applicant's Affiliate's headed notepaper]

- 5. This guarantee secures the fulfilment of all the obligations to which the Company ...... (USER)..... will be subject under the regasification capacity agreement(s) and the loading service agreement(s) entered into with OLT and under the Regasification Code (and as a result of the allocation of regasification capacity or loading services), both in terms of charges and in terms of compensation or indemnification.
- 6. The effectiveness of this guarantee is subject to the allocation of regasification capacity or loading services at the "FSRU Toscana" regasification terminal according to the provisions of the Regasification Code, or to the completion of the transfer of regasification capacity pursuant to Clause 3.2.2. of the Regasification Code or to the completion of the transfer of small scale slots pursuant to Clause 3.2.5.
- 7. This guarantee will remain in force until it is withdrawn by .....(GUARANTOR).... which shall give OLT written notice thereof (by registered mail with proof of receipt or certified email) at least one hundred twenty (120) days before the date on which this guarantee will cease to have effect, subject to the fact that if a withdrawal notice indicates a period of less than one hundred twenty (120) days, the effectiveness of the withdrawal shall be deemed, in any case and automatically, to be extended until the one hundred twentieth (120<sup>th</sup>) day subsequent to the date on which OLT received the withdrawal notice.
- 8. Any disputes regarding the interpretation, validity, effectiveness and enforcement of this guarantee shall be referred exclusively to the Court of Milan.

Date and place

## STAMP AND SIGNATURE

Pursuant to article 1341 Italian Civil Code the following points are specifically approved: 1) payment on demand and waiver of exceptions, 2) enforcement procedure, 3) waiver of right to enforce the provisions of articles. 1955 and 1957 Italian Civil Code, 4) validity of the guarantee, 5) Jurisdiction.

Date and place

STAMP AND SIGNATURE

Courtesy English Translation (not binding – only the Italian version is binding)

Annex 7A2P: Applicant's Affiliate Guarantee form – Multiannual allocations option [User's Group Company headed notepaper]

#### Annex 7A2P: Applicant's Affiliate Guarantee form – Multiannual allocations option

## Whereas:

- b) the Company .......(APPLICANT)...... is interested in taking part in the liquified natural gas regasification capacity allocation processes at the "FSRU Toscana" regasification terminal or the liquefied natural gas loading service provided by the "FSRU Toscana" regasification terminal by executing the relevant regasification capacity agreement(s) or the relevant loading service agreement(s) with the Company OLT Offshore LNG Toscana S.p.A., having registered office in Milan, via Passione 8, VAT no. 07197231009 (OLT), and accepting the terms envisaged by the Regasification Code of the Terminal itself;

#### Now, therefore,

- ......(GUARANTOR)...... with head office in ...... and with address for service for the purposes of this document in ....., irrevocably agrees to pay OLT within seven (7) business days, on written demand and without any requirement of proof or justification, setting aside any exceptions, and without any requirement of prior notice, formal notice, warning or request to the Company ...... (APPLICANT)....., any such sums as OLT may request for the reason indicated above up to the amount of Euro ....... (Euro......./...).
- 2. The guarantee may also be enforced several times, until the maximum amount envisaged by the previous point has been exhausted.
- 3. ......(GUARANTOR)...... declares that it has an unsecured long-term debt rating equal to or higher than at least one of the following ratings indicated by the following credit rating agencies: (a) BBBif indicated by Standard & Poor's Rating Service; (b) Baa3 if indicated by Moody's Investor Service Inc.; or (c) BBB if indicated by Fitch Ratings Ltd and it agrees to immediately report if such rating falls below such levels.
- 4. ....(GUARANTOR)..... declares that the provisions contained in articles 1955 and 1957 Italian Civil Code do not apply to this guarantee and that, in any case, it waives its right to enforce them.

Annex 7A2P: Applicant's Affiliate Guarantee form – Multiannual allocations option [User's Group Company headed notepaper]

- 5. This guarantee secures the fulfilment of all the obligations to which the Company ...... (USER)..... will be subject under the regasification capacity agreement(s) and the loading service agreement(s) entered into with OLT and under the Regasification Code (and as a result of the allocation of regasification capacity or loading services), both in terms of charges and in terms of compensation or indemnification.
- 6. The effectiveness of this guarantee is subject to the allocation of regasification capacity or loading services at the "FSRU Toscana" regasification terminal according to the provisions of the Regasification Code, or to the completion of the transfer of regasification capacity pursuant to Clause 3.2.2. of the Regasification Code or to the completion of the transfer of small scale slots pursuant to Clause 3.2.5.
- 7. In relation to the obligations to which ...... (USER)..... is subject following the allocation of multiannual capacity or loading services for periods in excess of one Gas Year, this guarantee will remain in force until 31 January [•], or the 31 January subsequent to the last Gas Year for which ...... (USER)..... is awarded regasification capacity or loading services.

This guarantee will be automatically renewed from year to year resulting in the corresponding postponement of the expiry date to 31 January, subject to the right of cancellation of ......(GUARANTOR)...... to be notified in writing (by registered mail with proof of receipt or certified email) to OLT at least one hundred and twenty (120) days before the end of the Gas Year to which this guarantee refers, or of each subsequent Gas year for which the guarantee has been renewed. In the case of cancellation, this guarantee may be enforced – pursuant to the Regasification Code - if ..... (USER)..... fails to replace it with a new guarantee within the time limits established by the Regasification Code.

8. Any disputes regarding the interpretation, validity, effectiveness and enforcement of this guarantee shall be referred exclusively to the Court of Milan.

Date and place

## STAMP AND SIGNATURE

Pursuant to article 1341 Italian Civil Code the following points are specifically approved: 1) payment on demand and waiver of exceptions, 2) enforcement procedure, 3) waiver of right to enforce the provisions of articles. 1955 and 1957 Italian Civil Code, 4) validity of the guarantee, 5) Jurisdiction.

Date and place

STAMP AND SIGNATURE

Annex 7B1: PS Bank Guarantee form [User's headed notepaper]

#### Annex 7B1: PS Bank Guarantee form

#### Whereas:

- .....(USER)..... with office a) the Company registered in ..... Tax reg. no. VAT no. ..... ..... has been awarded, or is interested in participating in allocation processes for, liquefied natural gas regasification capacity at the "FSRU Toscana" regasification terminal, executing the relevant regasification capacity agreement(s) with the company OLT Offshore LNG Toscana S.p.A., with registered office in Milan, via Passione 8, VAT no. 07197231009 (OLT), and accepting the terms of the Regasification Code of the Terminal;
- b) on [•] OLT assigned the Peak Shaving Service, or could allocate it subsequent to the allocation of regasification capacity envisaged by letter a), to a third party selected following the tender process and the Delivery Slot(s) referred to in the previous point is/are envisaged subsequent to the Unloading required for the Peak Shaving Service and prior to the deadline for the termination of the Peak Shaving Service (31 March [•]);
- c) in order to be able to participate in the regasification capacity allocation processes and/or to guarantee the actual delivery of the liquefied natural gas cargo relating to the awarded regasification capacity, the Company ......(USER)......shall provide a bank guarantee payable on first demand to be issued in its favour for an amount sufficient to ensure, from the date envisaged for the unloading of the liquefied natural gas cargo intended for the regasification capacity allocated to .......(USER)...... and for the entire duration of the Peak Shaving Service, that the risks associated with OLT's obligations under Clause 3.1.4 of the Regasification Code are covered;

#### Now, therefore,

- 1) .....(BANK)...... with head office in ...... and with address for service for the purposes of this document in ....., irrevocably agrees to pay OLT within 7 (seven) business days, on written demand and without any requirement of proof or justification, setting aside any exceptions, and without any requirement of prior notice, formal notice, warning or request to the Company ...... (USER)....., any such sums as OLT may request for the reason indicated above up to the amount of Euro ....... (Euro........./....).
- The guarantee may also be enforced several times, until the maximum amount envisaged by the previous point has been exhausted.
- ......(BANK)..... declares that it has an unsecured long-term debt rating equal to or higher than at least one of the following ratings indicated by the following credit rating agencies: (a) BBB- if

Annex 7B1: PS Bank Guarantee form [User's headed notepaper]

indicated by Standard & Poor's Rating Service; (b) Baa3 if indicated by Moody's Investor Service Inc.; or (c) BBB if indicated by Fitch Ratings Ltd.

- 4) ....(BANK)..... declares that the provisions contained in articles 1955 and 1957 Italian Civil Code do not apply to this guarantee and that, in any case, it waives its right to enforce them.
- 6) Any disputes regarding the interpretation, validity, effectiveness and enforcement of this guarantee shall be referred exclusively to the Court of Milan.

Date and place

STAMP AND SIGNATURE

Pursuant to article 1341 Italian Civil Code the following points are specifically approved: 1) payment on demand and waiver of exceptions, 2) enforcement procedure, 4) waiver of right to enforce the provisions of articles 1955 and 1957 Italian Civil Code, 5) validity of the guarantee, 6) Jurisdiction.

Date and place

STAMP AND SIGNATURE

[User's Group Company headed notepaper]

#### Annex 7B2: PS User's Group Guarantee form

#### Whereas

a)	the Company with registered office in
	reg. no is an Affiliate, as defined in the
	Regasification Code, of the Company (USER) with registered office i
	Tax reg. no VAT no
b)	the Company(USER) with registered office i
	Tax reg. no VAT no
	has been awarded, or is interested i
	participating in allocation processes for, liquefied natural gas regasification capacity at the "FSRI
	Toscana" regasification terminal, executing the relevant regasification capacity agreement(s) wit
	the company OLT Offshore LNG Toscana S.p.A., with registered office in Milan, via Passione 8
	VAT no. 07197231009 (OLT), and accepting the terms of the Regasification Code of the Termina
	;

- c) OLT has allocated, or could allocate it subsequent to the allocation of regasification capacity envisaged by letter b), the Peak Shaving Service to a third party selected following the tender process and the Delivery Slot(s) referred to in the previous point is/are envisaged subsequent to the Unloading required for the Peak Shaving Service and prior to the deadline for the termination of the Peak Shaving Service (31 March [•]);
- d) in order to be able to participate in the regasification capacity allocation processes and/or to guarantee the actual delivery of the liquefied natural gas cargo relating to the awarded regasification capacity, the Company ...... (USER)...... shall provide a bank guarantee payable on first demand for an amount sufficient to ensure, from the date envisaged for the unloading of the liquefied natural gas cargo intended for the regasification capacity allocated to .......(USER)...... and for the entire duration of the Peak Shaving Service, that the risks associated with OLT's obligations under Clause 3.1.4 of the Regasification Code are covered;

## Now, therefore

 The Company ...... with head office in ...... and with address for service for the purposes of this document in ....., irrevocably agrees to pay OLT within seven (7) business days, on written demand and without any requirement of proof or justification, setting aside any exceptions, and without any requirement of prior notice, formal [User's Group Company headed notepaper]

- 2) The guarantee may also be enforced several times, until the maximum amount envisaged by the previous point has been exhausted.
- 3) [...], ...., declares that it has an unsecured long-term debt rating equal to or higher than at least one of the following ratings indicated by the following rating agencies: (a) BBB – if indicated by Standard & Poor's Rating Service; (b) Baa3 if indicated by Moody's Investor Service Inc.; or (c) BBB if indicated by Fitch Ratings Ltd
- 4) ....(GUARANTOR)..... declares that the provisions contained in articles 1955 and 1957 Italian Civil Code do not apply to this guarantee and that, in any case, it waives its right to enforce them.
- 6) Any disputes regarding the interpretation, validity, effectiveness and enforcement of this guarantee shall be referred exclusively to the Court of Milan.

Date and place

## STAMP AND SIGNATURE

Pursuant to article 1341 Italian Civil Code the following points are specifically approved: 1) payment on demand and waiver of exceptions, 2) enforcement procedure, 4) waiver of right to enforce the provisions of articles. 1955 and 1957 Italian Civil Code, 5) validity of the guarantee, 6) Jurisdiction.

Date and place

STAMP AND SIGNATURE

## Annex 8: LNG and gas quality and measurement manual

#### 1. LNG and gas quantity, quality and pressure specifications

#### 1.1. Quality specifications for the LNG at the Delivery Point

The LNG quality specifications are as follows (\*\*):

PROPERTIES		SPECIFICATION	MEASUREMEN T UNIT
Wobbe Index	Minimum	47,31	MJ/Sm <sup>3</sup>
	Maximum	53,00	MJ/Sm <sup>3</sup>
GCV	Minimum	(*)	MJ/Sm <sup>3</sup>
	Maximum	(*)	MJ/Sm <sup>3</sup>
H2S + COS (as sulphides)	Maximum	≤ 5	mg/Sm3
Mercaptans (as sulphides)	Maximum	≤ 6	mg/Sm3
Total sulphur (as sulphides)	Maximum	≤ 20	mg/Sm3
Mercury (Hg)	Maximum	10	Nano g/Sm³
Hydrocarbon dew point (cricondentherm)	Maximum	≤ 0	°C (1-70bara)
Water (H2O)	Maximum	0,1	ppm (vol)
Oxygen (O2)	Maximum	0.6	% mol
Carbon Dioxide (CO2)	Maximum	2.5	% mol
Solids		No deposits on 60 mesh filters	
LNG density	Minimum	420	kg/m³
	Maximum	470	kg/m³

The reference standards for GCV and Wobbe Index are: ISO 6976:1995 calorific values (reference combustion temperature: +15°C, standard cubic metres +15°@ 1.01325 bara). It is understood that the quantity and quality measurements recorded at the time of unloading will be communicated and shared in accordance with the procedures and reference standards referred to in paragraphs 2.7 and 2.8.

(\*): if the Wobbe Index is within the specifications, the GCV and the individual components are acceptable.

(\*\*): Please note that 1 kJ/Sm<sup>3</sup><sub>15°/15°</sub> = 0.0002775 kWh/ Sm<sup>3</sup><sub>25°/15°</sub> and 1 kWh/ Sm<sup>3</sup><sub>25°/15°</sub> = 3603.6 kJ/Sm<sup>3</sup><sub>15°/15°</sub>. These conversion factors shall be used also for unloading certificates and reports as per paragraph 2.8.

## 1.2. Impurities

The Unloaded LNG must not contain solids, contaminants or extraneous material that may interfere with its saleability or cause damage or interfere with the Terminal's operations.

If the total sulphur content is less than five (5) mg/Sm<sup>3</sup>, it will not be necessary to analyse the sample of hydrogen sulphide and mercaptans sulphide.

To avoid any occlusion or erosion of the equipment, the Unloaded LNG must not contain any concentrations of fluid components (e.g. aromatics, C6H6, CO2, CH3OH, etc.) that exceed fifty percent (50%) of the solubility limit for that particular component within an operating pressure range of 0 to 100 bar and within an operating temperature range of -162 to +50°C. C6H6: max. 1 ppm, CH3OH: max. 0.5 ppm.

The LNG quality specifications are subject to modification at any time as required to conform with the Gas quality specifications.

## 1.3. Gas Quality Specifications at the Redelivery Point

The qualitative characteristics of the gas injected into the National Transmission System are those resulting from the analyses performed at the Terminal, based on the quality monitoring methods, procedures and instruments used at the Terminal itself. The regasified LNG injected into National Transmission System will comply with the quality and pressure specifications for gas injection required by SRG in accordance with the provisions of the Grid Code – provided that the LNG Unloaded and delivered by the User complies with the specifications at the Delivery Point.

The Operating Company, which has the transportation capacity at the Redelivery Point pursuant to article 8, paragraph 1, of Resolution no.137/02, complies with the quality specifications envisaged by the Grid Code pursuant to article 8, paragraph 1, of Annex A to Resolution no.185/05.

## 2. Measurement, Sampling and Analyses of LNG and Gas

## 2.1. Definitions

The relevant Standards and procedures such as GPA, API, ISO, EN or ASTM are updated in line with the latest revisions.

## 2.2. LNG Measurement Tests and Methods: Tank Gauge Tables

Prior to using any LNG Carrier, the User shall: (a) where the LNG Carrier's tanks and volume measuring devices have never be calibrated, arrange for a qualified classification entity selected by the User and the Operating Company of the Terminal to calibrate each tank and volume measuring device for volume against level, or (b) where the LNG Carrier's tanks and volume measuring devices have been previously calibrated, provide the Operating Company with proof of such calibration prepared by a qualified classification entity and, if necessary, arrange for the recalibration of all the tanks and volume measuring devices by a qualified classification entity selected by the User and the Operating Company.

## 2.2.1. Preparation of the Tank Gauge Tables

The LNG Carrier's tank tables must be verified by a qualified inspector. Such tables must include the calibration tables, trim and list correction tables, volume corrections to tank temperature and

other corrections, where necessary. The calibration tables must be verified by a qualified classification body and made available for consultation by the Maritime Authorities. The LNG Carrier must present its inspection certificates showing the last inspection.

## 2.2.2. Accuracy of the Tank Gauge Tables

The tank gauge tables prepared in accordance with section 2.1.1 must indicate volumes in cubic metres expressed to the thousandth, with the depth of the tank expressed in metres to the thousandth.

#### 2.2.3. Certification of Tank Calibration

The Operating Company is entitled to be present at the calibration of the tanks envisaged by section 2.1.1. The User shall give the Operating Company reasonable prior notice of the tank calibration.

# 2.2.4.Recalibration of the LNG Tanks in the case of Deformation, Reinforcement or Modification

In the event that one of the LNG tanks of an LNG Carrier becomes deformed or is reinforced or modified to such an extent as to call into question the validity of the gauge table envisaged by section 2.1.1 above, the user shall arrange for their recalibration in accordance with the procedure set forth in sections 2.1.1 and 2.1.2 above during a period when such LNG Carrier is out of service for inspection and/or repairs. The user shall bear the costs of the recalibration unless the latter was carried out at the Operating Company's request and there were no inaccuracies in the tank gauge tables, in which case the Operating Company shall bear the recalibration costs.

Apart from the cases envisaged by this section 2.1.4, no recalibration of any LNG tank of any LNG Carrier is required.

#### 2.3. LNG Measurement Tests and Methods: Selection of Measurement Devices

#### 2.3.1. Liquid-Level Measurement Devices

ISO 10976 specifies that at least two independent devices for measuring the liquid level must be available for each cargo tank. The primary and secondary measuring systems must be independent, so that if one fails the other will not be affected.

ISO 10976 defines the measuring precision of both primary and secondary devices: +/- 5mm (some systems are unable to meet this verification tolerance, in which case a verification tolerance of +/- 7.5 mm may be applied).

The measurement devices must be certified for off-shore use.

#### 2.3.2. Temperature Gauges

ISO 10976 specifies that there should be a minimum of five temperature sensors in the tank and at least one of them must be located above the maximum fill height so as to remain in the vapour space. Each temperature sensor shall be supported by a secondary sensor mounted adjacent to the primary sensor. The ATT system shall read and provide individual temperatures for both liquid and vapour space and allow their averages to be determined. In any case, LNG Carriers equipped with fewer temperature sensors (but still in accordance with the IGC Code requirements) may also be considered.

Two sensors including spares shall be installed - one on the tank bottom and the other at the top - to ensure constant measurement of the temperatures of the liquid and vapour, respectively. The remaining sensors shall be installed at an equal distance from the bottom and the top of the tank. All of the sensors shall be installed in such a way as to ensure that they are not affected by the operation of the spray pumps.

ISO 10976 specifies that the accuracy of the temperature measuring devices must be as follows:

Temp. Range, °C Range,

-165 to -145 +/-0.2

#### 2.3.3. Pressure Gauges

Each tank of each LNG Carrier must have a single pressure gauge.

ISO 10976 specifies that the accuracy of the pressure gauges must be +/- 0.3 kPa

#### 2.4. LNG Measuring Tests and Methods: Measuring Procedures

#### 2.4.1. General

ISO 10976 defines the measurement of the cargo on board LNG Carriers.

Before any measurement can take place, the gas to boilers line must be isolated, spray pumps and boil-off gas compressors switched off, loading arms connected and LNG Carrier's manifold valves closed. If gas combustion is permitted, then the gas flow meter must be recorded at the same time as OCT and CCT are performed. The Master of the LNG Carrier shall ensure that its monitoring devices operate properly and demonstrate that they have been calibrated by a qualified body. Calibration certifications must be available on request.

CCT measurement shall take place after unloading is completed, with transfer pumps switched off and allowing sufficient time for the liquid level to stabilise.

In volumetric terms, the condition of the loading arms and the unloading line should be the same for OCT and for CCT, whether empty or full. Any other device that may be used should be in the same condition for OCT and CCT.

The User, the Operating Company or their representatives are entitled to be present during each measurement, but the absence of a representative will not prevent the measurement from taking place

## 2.4.2. Liquid Level

The liquid level in each LNG tank of each LNG Carrier is measured to the nearest millimetre by using the primary liquid level measuring device referred to in Section 2.2.1 above.

The Five (5) readings shall be made in as rapid succession as possible. The arithmetic average of the readings shall be deemed to be the liquid level. The supplier of the measuring device must ensure that the CTMS is able to offset the dynamic movement while the LNG Carrier is moored at the Terminal. The internal level sampling rate of the CTMS shall be sufficient to enable adequate processing, providing the aforementioned readings at intervals of 15 seconds so as to be stable within CTMS accuracy limits. Such information must be included as part of the LNG Carrier calibration already approved by a qualified inspector. Any variation in the prescribed number of readings that may be required to offset the dynamic movement of the LNG Carrier while moored at

the Terminal must be provided by the supplier of the measuring equipment. Such information must be included as part of the LNG Carrier calibration tables already approved by a qualified inspector.

Such arithmetic average shall be calculated to the nearest tenth of a millimetre (0.1) and shall be rounded off to the nearest millimetre.

Such liquid level measuring device must be used for both the initial and final measurements during unloading at the Delivery Point. If the main measuring device is inoperative when Unloading commences, necessitating use of the auxiliary measuring device, the auxiliary measuring device shall be used at the end of the Unloading, even if the main measuring device has subsequently become available. The trim and list of the LNG Carrier must remain the same while such measurements are performed.

The liquid level in each LNG tank shall be recorded or printed

## 2.4.3. Temperature

At the same time the liquid level is measured, temperature shall be measured to the nearest tenth of a degree Celsius (0.1°C) by using the temperature measuring devices referred to in Section 2.2.2 above.

In order to determine the temperature of liquid and vapour in the tanks of the LNG Carrier, one (1) reading is taken with each primary temperature measuring device in each LNG tank. The arithmetic average of such readings with respect to the vapour and liquid in all LNG tanks shall be deemed to be the final temperature of the vapour and liquid.

Such arithmetic average must be calculated to the nearest hundredth of a degree Celsius  $(0.01^{\circ}C)$  and must be rounded off to the nearest tenth of a degree Celsius  $(0.1^{\circ}C)$ .

The temperatures in each LNG tank shall be recorded or printed.

## 2.4.4. Pressure

At the same time the liquid level is measured, the absolute pressure in each LNG tank must be measured to the nearest millibar by using the pressure measuring device referred to in Section 2.2.3 above.

The absolute pressure in the LNG tanks of each LNG Carrier must be determined by taking one (1) reading of the pressure measuring device in each LNG tank, and then considering the arithmetic average of all such readings.

Such arithmetic average must be calculated to one tenth (0.1) of a millibar and rounded to the nearest one (1) mbar.

In the event that an LNG Carrier uses units other than millibars, the Operating Company and the User may convert to millibars by using internationally recognised conversion factors.

The pressure in each LNG tank shall be recorded or printed.

## 2.4.5. Procedures in the case of Measuring Device Failure

If it is no longer possible to perform the measurements referred to in sections 2.3.1, 2.3.2, 2.3.3 and 2.3.4 due to a failure of the measuring devices, alternative measuring procedures will be established by mutual agreement b the Operating Company and the user having consulted an independent inspector.

## 2.4.6. Determination of the Volume of Unloaded LNG

The list and trim of the LNG Carrier must be measured at the same time as the liquid level and temperature of the LNG in each LNG tank are measured. ISO 10976 specifies that the tolerance permitted on trim readings is +/- 50 mm. The tolerance permitted on list measurement is +/- 0.05 Degrees. The LNG Carrier's LNG cargo transfer pipes must contain hydrocarbons in the same state during the final measurement as at the initial measurement. Vapour lines connected to the manifold must remain open to ensure that the vapour pressure in all LNG tanks is equalized. Such measurements shall be made immediately before any Cargo operation commences and immediately after Unloading is completed and after the loading arms and vessel lines have been drained. The volume of LNG, stated in cubic meters to the nearest one thousandth of a cubic metre (0.001), shall be determined by using the tank gauge tables referred to in Section 2.1 and by applying the volume corrections set forth therein.

The volume of Unloaded LNG shall be determined by deducting the total volume of LNG in all the tanks immediately after unloading is completed from the total volume in all tanks immediately before unloading commences. This volume in cubic metres of Unloaded LNG shall be rounded to the nearest one thousandth of a cubic metre (0.001).

Upon completion of the CCT measurements, all measurements recorded from the CTMS shall be printed to form three certificates, as follows:

Opening Transfer Measurement Certificate

Closing Transfer Measurement Certificate

Unloading certificate – which summarises the data from the opening and closing transfer certificates

## 2.5. TLNG Measurement Tests and Methods: Determination of the LNG Composition

For LNG Custody Transfer purposes, the quantity of energy transferred from the LNG Carrier to the Terminal is measured in accordance with the methods described in the GIILNG LNG Custody Transfer Handbook.

## 2.5.1. General

The Operating Company must sample and analyse the Unloaded LNG in accordance with this Section 1.4. In order to determine the either continuous sampling with subsequent analysis as per Section 2.4.2 or on-line sampling and analysis as per Section 2.4.4 may be used. The Operating Company shall decide which system shall be used to determine the official composition of the Unloaded LNG.

The LNG sampling/analysis systems must comply with ISO 8943 for continuous and on-line intermittent analysis systems and with UNI EN ISO 10715 "*Italian Natural Gas Standard – Sampling Guidelines*." A representative of the User may be present at the calibration of the devices and the sampling/analyses procedures, but the absence of a representative will not prevent such activities from taking place.

## 2.5.2. LNG Sampling System

a) The LNG sampling system shall be located in a weather-tight container on the Terminal in a suitable position on each Terminal main discharge line and must be configured in such a way as to ensure that representative continuous samples are taken from the LNG transfer lines during the period of full rate discharge. The system consists of two (2) LNG sampling systems with integrated vaporisers, equipped with stabiliser and control to ensure control of the phase change from LNG to gas. The LNG is sent from both sampling points to a single automated sampling system so that the cylinders may be filled.

- b) The sampled gas is delivered to an online gas chromatograph and used for online analysis. Alternatively, backup samples are taken on a continuous basis and stored in CP/FP containers. This sampling must be performed at a constant rate starting one hour after continuous Unloading at full rate has commenced and must end about one hour prior to the suspension of continuous full rate Unloading.
- c) The sampling device shall be sufficient to ensure that (representative) samples are taken from the LNG transfer line at all times during Unloading. It is also designed to extract, transport and process representative LNG samples, which are placed in three (3) 500 cc. stainless steel sample cylinders and sent to the analysers in the conditions required to ensure the proper performance of the analyses in terms of accuracy, repeatability, reproducibility and availability
- d) Once the discharge is completed, in the case of the use of the sampling system, the collected composite gas sample will be available in three (3) stainless steel sample cylinders. One sample cylinder must be sent for analysis at an independent onshore laboratory which uses methods that conform to industry standards, one sample cylinder must be made available to the User (delivered to the LNG Carrier), and one sample cylinder must be retained by the Operating Company for at least thirty (30) days. In case of dispute concerning the accuracy of the analyses, the Operating Company's sample shall be further retained until they both (the Operating Company and the User) agree that it may be released.

## 2.5.3. LNG Online Composition Analysis

The online analysis system uses a gas chromatograph to determine the molar fractions of hydrocarbons and nitrogen in accordance with ISO 8943. The analyses are conducted at five-minute intervals.

For each line, the composition is the average of the readings taken from about one hour from the start of continuous Unloading at full rate until about one hour prior to the suspension of full-rate Unloading. The composition of the Unloaded LNG is determined by taking the average of the two lines, when they are both available

The online analysis system is considered to be the primary system, whereas the continuous sampling system is to be considered as an alternative, which should only be used in case of non-availability and/or malfunction of the primary system. At the User's request, to be submitted with appropriate prior notice before unloading commences, the Operating Company will arrange for spot samples to be taken at 25%, 50% and 75% of unloading, and for them to be stored in the same manner as the samples envisaged by section 1.4.2d).

Before unloading commences and once it has been completed, three analyses must be performed on the calibration gas and sample gas to determine whether the repeatability of peak areas is within acceptable limits, based on the average of the results of the three analyses. The gas chromatography analysis must be carried out according to ISO 6974 Part 4 and the LNG density determined in accordance with the latest revision of the Klosek-McKinley method.

The individual composition readings and their averages shall be rounded off to at least 0.001%. If required, the methane concentration must be corrected to give a sum of composition percentages of 100% the rounding off of molar composition values should be consistent with that specified in the method used.

The online gas chromatographs must be calibrated and/or have calibration checks performed within twenty-four (24) hours of commencement of unloading. They are calibrated by using a standard gas mixture certified by an approved supplier, of renowned accuracy and traceability, and with a certificate of analysis that shows its composition and measurement uncertainties. The quality and composition of the gas will conform to the applicable commercial standards. At the request of the User, the User may arrange for the certified gas mixture to be made available in a composition

similar to that expected from the Unloaded LNG, if the certified gas compositions available to the Operating Company are not deemed to be adequate. The requested composition must be sent to the Operating Company not less than 8 weeks (56 days) prior to the start of the allocated delivery slot. Any modification/request made after this period will not be considered. The requested composition will be subject to the approval of the supplier of the gas mixtures, in terms of its feasibility. Once confirmation has been received from the supplier, the Operating Company will officially provide the User with the expected date of arrival of the requested mixture. In the event that the mixture is not made available in time for the start of unloading operations or the supplier declares that it is not feasible, the Operating Company will use a certified gas mixture in its possession for the calibration.

The total sulphur content of the Unloaded LNG is determined in accordance with ISO 19739:2004. If the total sulphur content is less than five (5) mg/Sm<sup>3</sup>, it is not necessary to analyse the sample for hydrogen sulphide.

## 2.5.4. Analysis System Specifications

- a) The online Gas Chromatograph used for the analyses is installed to verify the quality of the LNG transferred at the Delivery Point. The Gas Chromatograph is self-calibrating and provides an accurate analysis, by direct measurement or calculation, of the LNG composition, density, Wobbe Index and the gross calorific value (GCV). The analysis cycle for each of the gas Chromatographs lasts five (5) minutes.
- b) The analysers are installed inside adequate housing. The internal temperature is monitored to ensure that ambient conditions are always adequate. In particular, the analysis equipment consists of:
  - 1. One (1) composition analyser (gas chromatograph) 100% redundant
  - 2. One (1) sulphur analyser (gas chromatograph) for H2S, mercaptans, and total sulphur
  - 3. A dew point analyser (hydrocarbon / water)
  - 4. A density analyser
  - 5. An oxygen (O2) analyser
  - 6. The sampling system
- c) The gas chromatograph will be used to analyse the composition (C1 to C6+, N2, CO2) and to calculate GCV, WI, Dr, D, and Z where:
  - GCV Gross Calorific Value
  - WI Wobbe Index
  - Dr Relative density
  - D dew point
  - Z compressibility factor

To check the accuracy of GCV-Dr-Z-CO2-N2, two (2) test gas samples must be used containing all the components to be determined, one with a GCV of between thirty-seven point three (37.3) and thirty-eight point one (38.1) MJ/Sm3 and the other with a GCV between thirty-eight point nine (38.9) and forty point two (40.2) MJ/Sm3. For each test sample, five (5) analyses shall be carried out, discarding the first two (2). The average composition and the relevant chemical-physical parameters must be calculated on the basis of the last three (3) analyses, verifying whether the relative error in respect of the test gas analysis certificate is within the limits

specified below. The method applicable to the Gas Chromatograph (GC) will define the applicable level of precision. The recommended method is that of ISO 6974 Part 4.

C1 – C2	0.1 % molar
C3 – N2 – CO2	0.05 % molar
GCV	50 kJ/Sm3
Dr	0.001
Z	0.001

To check the repeatability of the GC in accordance with the table below, at least seven (7) consecutive analyses of a gas sample containing all the relevant components must be carried out, discarding the first two (2) analyses. For this trial, a certified gas mixture or 'working gas' must be used

GCV	0.5 %
Dr	0.5 %
Z	0.1 %
CO2	0.1 %
N2	0.1 %

d) The gas chromatograph for H2S, mercaptans, and total sulphur analysis and calculation must be within the limits specified below:

Repeatability: ± 2% of full scale

Sensitivity: ± 0.5% of full scale

Analysis time: 6 minutes

e) The dew point analyser (water and hydrocarbons) must be within the limits specified below: Accuracy: ±0.5°C

Repeatability: according to supplier's standards

Measure frequency: 6 cycles/hour recommended (12 maximum)

Resolution: 0.1 °C

Range: -40 / +20°C

f) The density analyser must be within the limits specified below: Accuracy: +/- 0.1% of reading

Repeatability: +/- 0.02% of reading

Response time: < 60 sec.

g) The oxygen analyser must be within the limits specified below Accuracy: +/-1% F.S.

Repeatability: +/- 1% of SPAN

Sensitivity: according to supplier's standards

Response time: according to supplier's standards

h) The humidity analyser must be within the limits specified below Accuracy: ±1°C

Sensitivity: 0.1 ppmV

Resolution: 0.1 °C

## 2.5.5. Procedure in Case of Analysis System Failure

In the case of a failure/unavailability of the online analysis system before the start of unloading, the sampling system must be used to determine the LNG composition.

In the case of a failure/unavailability of both the continuous sampling system and the online sampling system, or a fault in the analysis system used by the Cargo surveyor after the unloading, the arithmetic average of the analysis results of the five (5) immediately preceding cargoes (or the total cargoes delivered if less than five (5)) of similar composition to that expected for the current cargo from the same loading port, including the cargoes of other Users, shall be deemed to be the composition of the LNG. If the above is not deemed reliable or feasible by the Cargo Surveyor, the weathered composition according to MOLAS model will be used for the determination of LNG quality within five (5) Business Days of the Unloading of the LNG carrier.

In the event that the LNG expected to be Unloaded was loaded at a regasification terminal through a reloading service, the quality of such LNG will be that measured at the Terminal, unless the User (or a Cargo Surveyor appointed by the latter) provides evidence that the regasification terminal in which the loading took place, is designed and equipped in accordance with commercially accepted standards in terms of the positioning of the sampling system in relation to the cargo tanks.

## 2.5.6. Analysis of the Composition for Vapour Return

Since the Terminal is not equipped with a sampling system for the returned vapour composition, the determined GCV will be 33,935 MJ/m3 in standard conditions as specified, equivalent to a quality comprising ninety percent (90%) methane and ten percent (10%) nitrogen.

## 2.6. LNG Measuring Tests and Methods: Determination of Transferred Energy

The quantity of energy transferred from every LNG Carrier is calculated by an independent Cargo Surveyor appointed by the interested parties in conformity with the measurement and calculation methods defined in this document. The maximum error for the determination of the energy received is in accordance with the current standards (GIILNG LNG Custody Transfer Handbook – Third Edition 2010).

The quantity of Unloaded LNG must exclude the volume of vapour returning to the LNG Carrier during the unloading of the LNG.

During the transfer operations, the volume of Unloaded LNG is replaced by the Gas returned from the Terminal.

Once the unloading is completed, a small quantity of LNG remains in the LNG Carrier's tanks. The transferred energy, E, corresponds to the difference between the energy transferred as LNG and that associated with the gas [natural gas (NG) + gas used by the LNG Carrier's engines, if applicable (MG)]:

## $\mathbf{E} = \mathbf{E}_{\mathsf{LNG}} - \mathbf{E}_{\mathsf{NG}} - \mathbf{E}_{\mathsf{MG}}$

These energy components are evaluated by determining the transferred volumes and/or mass and the average volume- and/or mass-based calorific value during the transfer process, i.e.:

## For LNG:

 $\mathbf{E}_{\mathsf{LNG}} = \mathbf{V}_{\mathsf{LNG}} \mathbf{X} \, \boldsymbol{\delta}_{\mathsf{LNG}} \mathbf{X} \, \mathbf{H}_{\mathsf{LNG}}$ 

where:

**V**<sub>LNG</sub>: volume of LNG measured in the LNG Carrier's tanks;

 $\delta_{\text{LNG}}$ : density of LNG calculated on the basis of the gas chromatography analyses and temperature

 $H_{LNG}$ : average mass-based Gross Calorific Value (GCV) of LNG, calculated by gas chromatography analyses.

## For natural gas (NG):

 $\mathbf{E}_{\mathrm{NG}} = \mathbf{V}_{\mathrm{NG}} \times \mathbf{H}_{\mathrm{NG}}$ 

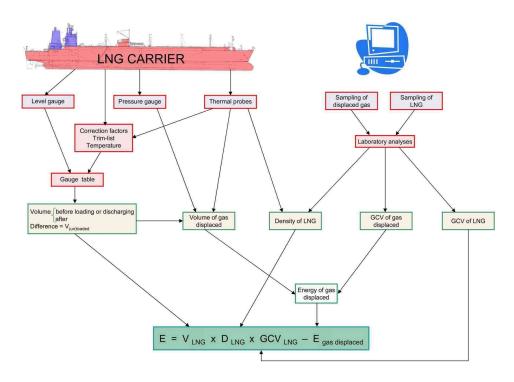
where:

 $V_{NG}$ : Volume of gas replacing the Unloaded LNG. This volume, brought to standard conditions (288.15 K and 1013.25 mbar) is calculated from the volume of the Unloaded LNG and the temperature and pressure conditions in the tanks at the end of the unloading

H<sub>NG</sub>: volume-based GCV of vapour

<u>Note</u>: The natural evaporation of the cargo during unloading is not included in the calculation. In fact, the loss of LNG is offset by the lower quantity of Gas returned to the LNG Carrier's.

Courtesy English Translation (not binding – only the Italian version is binding) Annex 8: LNG Quality Specifications



Cargo inspection principles

## 2.7. LNG Measuring Tests and Methods: Calculation of Transferred Energy

#### 2.7.1. Calculation of the Gross Energy Discharged

The calculation of the gross energy discharged is a function of:

V<sub>LNG</sub> : Volume of Unloaded LNG,

 $\delta_{LNG}$  : density of Unloaded LNG

H<sub>LNG</sub>: mass-based GCV of Unloaded LNG

 $E_{LNG} = V_{LNG} \times \delta_{LNG} \times H_{LNG}$ 

#### 2.7.2. Calculation of the Volume of Unloaded LNG

#### Method of Calculation

The volume of Unloaded LNG is calculated as the difference between the volumes of LNG contained in the tanks before and after unloading. The volume of LNG contained in the tank at a given point is determined by a reading from the gauge table, as a function of the level of LNG.

The level of LNG is obtained from the level measured in the tank (average of the level gauges) with the (aforementioned) correction factors applied according to need.

The volume of the LNG Carrier at a given point is the sum of the volumes contained on all the tanks.

## 2.7.3. Calculation of the Density of the Unloaded LNG $\delta$ LNG

The density is calculated from various models based on equations of state, corresponding equations of state, etc. with the following input data:

1. The composition of LNG from the gas chromatography analyses after the sampling and vaporisation; the values for molar composition have five decimal places;

2. The temperature of LNG, measured in the LNG Carrier's tanks; the temperature of LNG in measured in °C up to one decimal place (*i.e.*, 0.1).

The calculation to determine the density of LNG uses the latest revision of the Klosek & McKinley method (KMK).

#### Application Areas for the Calculation Method

The limits of the Klosek & McKinley method for LNG composition and temperature are:

Methane (CH <sub>4</sub> )	> 60 % mol.
Iso- and normal butane (iC <sub>4</sub> + nC <sub>4</sub> )	< 4 % mol.
Iso- and normal pentane (iC $_5$ + nC $_5$ )	< 2 % mol.
Nitrogen (N <sub>2</sub> )	< 4 % mol.
Temperature (T)	< 115 K
	< - 158.15 °C

## The Klosek Mac Kinley Method Formula

The method for calculating the density of LNG is based on an empirical evaluation of the molar volume of mixtures in a given thermodynamic state. The density is calculated as follows:

$$\rho_{LNG} = \frac{M_{mix}}{V_{mix}}$$

where:

 $\rho_{LNG}$ : density of LNG in [kg·m<sup>-3</sup>]

 $M_{mix}$ : molecular weight of the mixture in [kg·kmol<sup>-1</sup>]

$$M_{mix} = \sum M_i \cdot X_i$$

where:

M<sub>i</sub>: molecular weight of component *i*;

X<sub>i</sub>: molar fraction of component *i*.

V<sub>mix</sub>: molar volume of the mixture expressed in [I·mol<sup>-1</sup>]

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$$V_{mix} = \sum X_{i} \cdot V_{i} - \left[ K_{1} + (K_{2} - K_{1}) * \left( \frac{X_{N_{2}}}{0.0425} \right) \right] * X_{CH_{4}}$$

where:

X<sub>i</sub> : molar fraction of component *i*.

Vi : molar volume of component *i* at the temperature of the LNG

K<sub>1</sub>, K<sub>2</sub>: correction factors

The values of K1 and K2, expressed in l/mol, are determined from tables as a function of the molar mass of LNG at temperatures of between 105 K and 135 K. The tables that show molar volumes in  $[I \cdot mol^{-1}]$  for hydrocarbons from C1 to C5 as a function of temperature varying from 106 K to 118 K are those used for this method. There is no rounding-off when calculating K1, K2 and Vmol.

#### 2.7.4. Calculation of the Mass-Based Calorific Value of the Unloaded LNG - Hm<sub>LNG</sub>

#### Method of Calculation

The calculation of the mass-based calorific value of LNG is determined on the basis of the molar composition, the molar mass and the molar calorific value of the various components. The molar mass and the molar calorific value for each component are included in schedule 1 of the tables annexed to this manual:

The correlation is:

$$Hm_{LNG} = \frac{\sum_{i=1}^{N} [x_i * H_i^o(t_1)]}{\sum_{i=1}^{N} x_i * M}$$

where:

Hm<sub>LNG</sub>: mass-based calorific value of the mixture [MJ·kg<sup>-1</sup>]

 $H^{0}i(t_{i})$ : mass-based calorific value of component *i*, [MJ·kmol<sup>-1</sup>], at a combustion temperature of 15°C

- x<sub>i</sub>: molar fraction of component *i*
- M<sub>i</sub>: molar mass of component *i* [kg·kmol<sup>-1</sup>]

#### 2.7.5. Calculation of the Volume-Based GCV of the Unloaded LNG - Hv<sub>LNG</sub>

#### Method of Calculation

The calculation of the volume-based GCV (for real gas conditions) of the LNG is determined by the volume-based GCV, the molar composition and by the summation factor of the various components and the molar gas constant. The GCV and the summation factor for each component are include in schedule 1 of the tables.

The correlation is illustrated as follows:

$$Hv_{LNG} = \frac{\sum_{i=1}^{N} \left[ x_i * Hv_i \right]}{Z_{mix}}$$

with:

$$Z_{mix} = 1 - \left[\sum_{i=1}^{N} x_i * \sqrt{b_i}\right]^2$$

where:

Hv<sub>LNG</sub>: Volume-based GCV (real gas conditions) of the mixture [MJ·m3<sup>-1</sup>]

x<sub>i</sub>: molar fraction of component *i* 

Hv<sub>i</sub>: Volume-based GCV of component *i*, [MJ·m3<sup>-1</sup>], at the conditions of 15/15°C & 101.325 kPa

Z<sub>i</sub>: compression factor at the reference measurement conditions

 $\sqrt{b_i}$ : summation factor of component *i*, (a 15°C & 101.325 kPa)

## 2.7.6. Calculation of the Wobbe Index of the Unloaded LNG - WI

The calculation method is based on a real gas, with the following formula:

$$WI = \frac{Hv_{LNG}}{\sqrt{d}}$$

with:

$$d = \sum_{i=1}^{N} \left( x_i * \frac{M_i}{M_{air}} \right) * \frac{Z_{air}}{Z_{mix}}$$

where:

	WI:	Wobbe Index of the mixture,	[MJ·m3 <sup>-1</sup> ]
--	-----	-----------------------------	------------------------

HV<sub>LNG</sub>: Volume-based GCV (in real gas conditions) of the mixture

d: relative density of the mixture of real gas

M<sub>i</sub>: molar mass of component *i* [kg·kmol<sup>-1</sup>]

M<sub>air</sub>: molar mass dry air (28.9626 kg·kmol<sup>-1</sup>)

Z<sub>mix</sub> : compression factor at the reference measurement conditions

Z<sub>air</sub> : compression factor in real gas conditions of dry air, at 288.15K & 101.325 kPa (0.99958)

#### 2.7.7. Calculation of the Natural Gas Energy at the LNG Carrier

The calculation of energy returning to the LNG Carrier  $E_{NG}$  is based on the following values:

the volume of gas  $V_{NG}$ 

the Volume-based GCV of natural gas  $H_{NG}$ 

Since the Terminal does not provide the measure of the Volume-based GCV for returning gas, the value determined will be 33,995 MJ·m<sup>-3</sup> in standard conditions as specified for real gas conditions, equivalent to a quality of ninety percent (90%) methane and ten percent (10%) nitrogen.

## 2.7.8. Calculation of the Volume of Natural Gas – VNG

The volume of transferred Natural Gas is calculated as the difference from the volume of LNG transferred on the basis of:

the temperature of the gas phase

the pressure of the gas phase

Between two cargo inspections, natural evaporation is considered together with the volume of transferred LNG, if a corresponding drop in the level of LNG is recorded.

Outside the cargo inspections (before and after), this evaporation is not considered and is, instead, absorbed by the Terminal

## Method of calculation

The calculation of the volume of gas returning to the LNG Carrier between two cargo inspections, corresponding to the geometrical volume of the Unloaded LNG, must take place in specific pressure and temperature conditions: 101.325 kPa and 15 °C, respectively. The volume must be corrected based on the temperature and pressure conditions of the gas phase of the LNG Carrier.

Standard conditions (101.325 kPa; 15 °C)

$$V_{NG} \approx V_{LNG} * \frac{288.15}{273.15 + t} * \frac{P}{1013.25}$$

 $V_{LNG}$ : Volume of gas in the observed pressure and temperature conditions. There is no rounding-off in the calculation of the volume of returning gas.

P: Observed absolute pressure, expressed in mbar, in the LNG Carrier's tanks. For the calculations, the measurements are rounded off to the nearest mbar.

t: Temperature observed in the vapour phase, in degrees Celsius. The value is equal to the average of the temperatures indicated by the temperature gauges not immerged in the LNG inside the LNG Carrier's tanks. For the calculations, the temperatures precise to one tenth of a degree  $(0.1 \ ^{\circ}C)$ 

## Measurement Unit and Rounding-Off

The volume of natural gas VNG is expressed in cubic metres [m<sup>3</sup>] as specified in standard pressure and temperature conditions (101.325 kPa.; 15 °C), no rounding-off takes place in the natural gas energy calculations.

# 2.7.9. Calculation of the Net Energy Discharged (formulas and rounding-off for performing the calculation)

#### Method of calculation

In short, the net discharged energy is expressed according to the formula (standard conditions (1013,25 mbar; 15° C)):

$$E_{LNG} = V_{LNG} \left[ \left( \rho_{LNG} * H_{LNG} \right) - \left( \frac{288.15}{273.15 + t} * \frac{P}{1013.25} * H_{NG} \right) \right]$$

#### Measurement unit and rounding-off

All calculations for the net discharged energy are carried out without rounding off and the following input data is used:

V<sub>LNG</sub>: expressed in [m<sup>3</sup>] to the third decimal place

ρ <sub>lng</sub> :	expressed in kg/m <sup>3</sup> with no rounding off in the calculations; no rounding-off in the calculation of K1, K2 and Vmol; the molar composition of the LNG is rounded off to the fifth decimal place or if it is a molar percentage to the third; the temperature of the LNG in °C is given to the first decimal place		
H <sub>LNG</sub> :	Mass-based GCV of the LNG expressed in $[MJ \cdot kg^{-1}]$ with no rounding off in the calculations. The molar composition of the LNG is given to the fifth decimal place or to the third in the case of molar percentages.		
t:	temperature of the natural gas expressed in [°C] and rounded off to the first decimal place		
P:	pressure of the natural gas expressed in bar to the third decimal place or in mbar rounded off to the unit		
H <sub>NG</sub> :	Volume-based GCV of natural gas expressed in [MJ·m <sup>-3</sup> ] with no rounding off in the calculations. The molar composition of the LNG is rounded off to the fifth decimal place or to the third in the case of molar percentage.		
E <sub>NG</sub> :	net discharged energy expressed in GJ without rounding off		
<u>Conversions</u> :			
MJ to MMBtu (ASTM E380-72) :			
1 MMBtu (ref	1 MMBtu (reference combustion T) = 1055.056 MJ (reference combustion T).		
1 kJ·mol <sup>-1</sup> = 0,00423 MJ·m <sup>-3</sup>			

 $1 \text{ kJ/Sm}^{3}_{15^{\circ}/15^{\circ}} = 0.0002775 \text{ kWh/ Sm}^{3}_{25^{\circ}/15^{\circ}} \text{ e } 1 \text{ kWh/ Sm}^{3}_{25^{\circ}/15^{\circ}} = 3603.6 \text{ kJ/Sm}^{3}_{15^{\circ}/15^{\circ}}.$ 

## 2.8. UNLOADING CERTIFICATE AND REPORT

For unloading certificates and reports, the thermodynamic references are 15° and 1,01325 bara for measurement and 25° and 1,01325 bara for combustion and the energy is expressed in kWh or its multiples, therefore the value shall be converted as below using the following conversion factors:

1 kJ/Sm<sup>3</sup>15°/15° = 0.0002775 kWh/ Sm<sup>3</sup>25°/15°

 $1 \text{ kWh}/\text{Sm}^{3}_{25^{\circ}/15^{\circ}} = 3603.6 \text{ kJ}/\text{Sm}^{3}_{15^{\circ}/15}$ 

the values of the cargo are as follows:

V <sub>LNG</sub> Before unloading	: in [m <sup>3</sup> ] to the third decimal place
V <sub>LNG</sub> after unloading	: in [m³] to the third decimal place
V <sub>Unloaded LNG</sub>	: in [m <sup>3</sup> ] to the second decimal place
Temperature of the LNG before Unlo	ading: in [°C] to the first decimal place
Tank pressure after Unloading	: in [mbar] rounded off to the unit
Temperature of Gas after unloading	: in [°C] to the first decimal place
Composition of the LNG	: in [mol %] to the third decimal place
Composition of the Natural Gas	: in [mol %] to the third decimal place
Wobbe Index decimal place	: in [kWh·m⁻³ @ 25/15°C & 101.325 kPa] to the second

**Volume-based and mass-based GCV** : in [kWh·kg<sup>-1</sup> @ 25°C] or per [m<sup>3</sup> 25/15°C & 101.325 kPa] to the second decimal place

Density of the LNG	: in [kg·m <sup>-3</sup> ] to the third decimal place
Density of Gaseous LNG	: in $[kg \cdot m^{-3}]$ to the third decimal place
Specific Density of Gaseous LNG	: no dimension, to the third decimal place

**Quantity of Energy Returning to the LNG Carrier** :in [MWh @ 25°C] rounded off to the unit (no digit after the decimal point) and [MMBtu] to the second decimal place

**Quantity of Net discharged energy** : in [MWh @ 25°C] rounded off to the unit (no digit after the decimal point) and [MMBtu] to the second decimal place

#### 2.9. Specific values of the components of the Natural Gas mixture

- HV<sub>i</sub>: Volume-based GCV (15/15°C & 101.325 kPa) of component *i*
- HM<sub>i</sub>: molar GCV (15°C) of component i
- M<sub>i</sub>: molar mass of component *i*

√b<sub>i</sub>:

summation factor (15°C & 101.325 kPa) of component i

	PROPERTIES			
COMPONENT	$HV_i$	$HM_i$	$M_{i}$	$\sqrt{b_i}$
	[MJ/m <sup>3</sup> ]	[kJ/mol]	[kg/kmol]	
Methane (CH4)	37.706	891.56	16.043	0.0447
Ethane (C2H6)	66.07	1,562.14	30.070	0.0922
Propane (C3H8)	93.94	2,221.10	44.097	0.1338
n-Butane (nC₄H₁₀)	121.79	2,879.76	58.123	0.1871
Iso-Butene (iC <sub>4</sub> H <sub>10</sub> )	121.40	2,870.58	58.123	0.1789
n-Pentane (nC₅H₁₂)	149.66	3,538.60	72.150	0.2510
Iso-Pentane (nC₅H₁₂)	149.36	3,531.68	72.150	0.2280
Nitrogen (N <sub>2</sub> )	-		28.0135	0.0173
Carbon Dioxide (CO2)	-		44.010	0.0748

Ref.: ISO 6976:1995

## 2.10. Molar Volumes of the components

COMPON ENT	MOLAR VOLUME, I/mol							
	118 K	116 K	114 K	112 K	110 K	108 K	106 K	
CH <sub>4</sub>	0.038817	0.038536	0.038262	0.037995	0.037735	0.037481	0.037234	
C <sub>2</sub> H <sub>6</sub>	0.048356	0.048184	0.048014	0.047845	0.047678	0.047512	0.047348	
C <sub>3</sub> H <sub>8</sub>	0.062939	0.062756	0.062574	0.062392	0.062212	0.062033	0.061855	
iC <sub>4</sub> H <sub>10</sub>	0.078844	0.078640	0.078438	0.078236	0.078035	0.077836	0.077637	
nC <sub>4</sub> H <sub>10</sub>	0.077344	0.077150	0.076957	0.076765	0.076574	0.076384	0.076194	
iC <sub>5</sub> H <sub>12</sub>	0.092251	0.092032	0.091814	0.091596	0.091379	0.091163	0.090948	
nC <sub>5</sub> H <sub>12</sub>	0.092095	0.091884	0.091673	0.091462	0.091252	0.091042	0.090833	
N2	0.050885	0.049179	0.047602	0.046231	0.045031	0.043963	0.043002	

Ref. : N.B.S. - Technical note 1030 December 1980.

Molecular weight of	VOLUME REDUCTION, I/mol							
the mixture	105 K	110 K	115 K	120 K	125 K	130 K	135 K	
16	-0.007	-0.008	-0.009	-0.010	-0.013	-0.015	-0.017	
17	0.165	0.180	0.220	0.250	0.295	0.345	0.400	
18	0.340	0.375	0.440	0.500	0.590	0.700	0.825	
19	0.475	0.535	0.610	0.695	0.795	0.920	1.060	
20	0.635	0.725	0.810	0.920	1.035	1.200	1.390	
21	0.735	0.835	0.945	1.055	1.210	1.370	1.590	
22	0.840	0.950	1.065	1.205	1.385	1.555	1.800	
23	0.920	1.055	1.180	1.330	1.525	1.715	1.950	
24	1.045	1.155	1.280	1.450	1.640	1.860	2.105	
25	1.120	1.245	1.380	1.550	1.750	1.990	2.272	

## Volume correction factor - k1 x 10-3

Ref. : N.B.S. - Technical note 1030 December 1980.

## Volume correction factor – k2 x 10-3

VOLUME REDUCTION, I/mol							
105 K	110 K	115 K	120 K	125 K	130 K	135 K	
-0.010	-0.015	-0.024	-0.032	-0.043	-0.058	-0.075	
0.240	0.320	0.410	0.600	0.710	0.950	1.300	
0.420	0.590	0.720	0.910	1.130	1.460	2.000	
0.610	0.770	0.950	1.230	1.480	1.920	2.400	
0.750	0.920	1.150	1.430	1.730	2.200	2.600	
0.910	1.070	1.220	1.630	1.980	2.420	3.000	
1.050	1.220	1.300	1.850	2.230	2.680	3.400	
1.190	1.370	1.450	2.080	2.480	3.000	3.770	
1.330	1.520	1.650	2.300	2.750	3.320	3.990	
1.450	1.710	2.000	2.450	2.900	3.520	4.230	
	105 K         -0.010         0.240         0.610         0.750         0.910         1.050         1.190         1.330	105 K110 K-0.010-0.0150.2400.3200.4200.5900.6100.7700.7500.9200.9101.0701.0501.2201.1901.3701.3301.520	105 K110 K115 K-0.010-0.015-0.0240.2400.3200.4100.4200.5900.7200.6100.7700.9500.7500.9201.1500.9101.0701.2201.0501.2201.3001.1901.3701.4501.3301.5201.650	105 K110 K115 K120 K-0.010-0.015-0.024-0.0320.2400.3200.4100.6000.4200.5900.7200.9100.6100.7700.9501.2300.7500.9201.1501.4300.9101.0701.2201.6301.0501.2201.3001.8501.1901.3701.4502.0801.3301.5201.6502.300	105 K110 K115 K120 K125 K-0.010-0.015-0.024-0.032-0.0430.2400.3200.4100.6000.7100.4200.5900.7200.9101.1300.6100.7700.9501.2301.4800.7500.9201.1501.4301.7300.9101.0701.2201.6301.9801.0501.2201.3001.8502.2301.1901.3701.4502.0802.4801.3301.5201.6502.3002.750	105 K110 K115 K120 K125 K130 K-0.010-0.015-0.024-0.032-0.043-0.0580.2400.3200.4100.6000.7100.9500.4200.5900.7200.9101.1301.4600.6100.7700.9501.2301.4801.9200.7500.9201.1501.4301.7302.2000.9101.0701.2201.6301.9802.4201.0501.2201.3001.8502.2302.6801.1901.3701.4502.0802.4803.0001.3301.5201.6502.3002.7503.320	

Ref. : N.B.S. - Technical note 1030 December 1980.

## 3. MEASUREMENTS AND TESTS FOR THE EXPORT OF GAS AT THE REDELIVERY POINT

#### 3.1. Gas delivery

There is a complete measurement system to accurately measure the gas which enters the system after regasification. The measurement system is located at the Terminal, and has been built in accordance with the applicable standards and the requirements laid down by domestic and international legislation and by EU Directive 2004/22/EC / CE on measuring instruments (MID) applicable to the fiscal measurement of Natural Gas. The MID was implemented in Italy by Legislative Decree no. 22 of 2 February 2007.

## 3.1.1.Volume Measurement

The exported gas is fiscally measured by ultrasonic meters with 100% backup

## 3.1.2. Quality Measurement

The analyser performs a continuous measurement of the defined components within practicable limits.

Two online gas chromatographs (one operating/the other on standby) are installed on the common export line downstream of the metering, to verify whether the quality of the gas exported to the system conforms entirely to the specifications of the entry point. The system must be self-calibrating and, through direct measurement or calculation, it provides an accurate analysis of the composition of the exported gas, its density, Wobbe Index and GCV. The analysis cycle for each gas chromatograph lasts five (5) minutes.

Manual sampling points allow the composition of the NG (gas) to be verified in a laboratory in case of dispute or the unavailability of the online analyser, in accordance with requirements of the System Operator.

In case of non-availability and/or malfunction of the analyser, the flowmeter will measure the flow (see section 4.0.3 below) based on the latest available "good" data, which may be up to nine (9) Days old (and in any case in accordance with the current operating Manual used by SRG and OLT Offshore). If the analyser is unavailable for longer periods, manual sampling will be used by agreement with the relevant parties.

The gas chromatographs conform to the SGR Grid Code (chapter 11 "Gas Quality").

## 3.1.3.Flow Computers

Each fiscal measurement stream has dedicated flow computers which communicate with their respective flowmeters via a Fieldbus interface and download the data received from the gas chromatographs and field instruments to provide a continuous calculation of the following values:

Volumetric flow rate;

Volumetric flow totaliser;

Mass flow rate and totaliser

Flow direction;

Total energy;

Calorific value calculation;

Gas composition;

Density (in accordance with ISO 6976);

Compressibility factor;

Process Temperature;

Process pressure.

The flow computer provides calculations for the gas flow at the "reference conditions" (as envisaged by ISO 13443 – pressure 101,325 kPa, temperature 288.15 K). The flow computer uses input from the ultrasonic flowmeter to measure the pressure, temperature and compressibility factor in accordance with ISO 12213.

#### 3.1.4. Overall Accuracy of the Measurement System

Overall uncertainty is in line with ISO 5168.

## 3.1.5. Fiscal Metering Supervisory System (EMMS)

The 100% redundant EMMS provides gas flow and quality data interface, acquisition, processing, storage and reporting. The EMMS checks and validates the composition data from the analysers.

#### 3.1.6.Use of the Fuel Gas Fiscal Metering System

Any fuel gas used within the Terminal is measured fiscally.

The fiscal metering system consists of 2 parallel measurement lines (2x100%) equipped with measuring systems in line with the fiscal metering requirements envisaged by Italian law.

## 3.1.7.Calibration

The flow computers are calibrated in accordance with SRG standards.

#### 4. Inventory Balancing

Inventory balancing is carried out when necessary and in accordance with the authorisations and the requirements of the Italian tax authorities.

#### 5. Amendments to the values and technical references of this manual

For objective operational and technical reasons, and as a consequence of normative and regulatory developments, the Operating Company may amend one or more values and technical references contained in this manual or it may introduce new parameters with retroactive effect even with regard to commitments already assumed by the Users.

#### 6. Definitions and referenced standards

#### 6.1. List of acronyms

API	:	American Petroleum Institute
ASTM	:	ASTM International - formerly American Society for Testing and Materials
ATG	:	Automatic tank gauge

## Courtesy English Translation (not binding – only the Italian version is binding) Annex 8: LNG Quality Specifications

ATT	:	Automatic tank thermometer
BOG	:	Boil-off gas
CCT	:	Closing Custody Transfer
COS	:	Carbonyl sulphide
CP/FP :		Constant Pressure, Floating Piston – applies to gas sample cylinders
CTS	:	Custody Transfer System
CTMS :		Custody Transfer Measurement System
D	:	Dew point
Dr	:	Relative density
EN	:	Euro Norm
ISO	:	International Standards Organization
FAT	:	Factory Acceptance Test – normally performed on the supplier's premises
GCV	:	Gross Calorific Value
GPA	:	Gas Producers Association
EMC	:	Electromagnetic compatibility –
GC	:	Gas Chromatograph
GCU	:	Gas combustion unit
GIILNG		: Groupe International des Importateurs de Gaz Naturel Liquefie
GNG	:	Gaseous natural gas
H2S	:	Hydrogen sulphide
IACS	:	International Association of Classification Societies
IAPH	:	International Association of Ports and Harbours
ICS	:	International Chamber of Shipping
IEC	:	International Electrotechnical Commission
IGC Code	:	International Gas Carrier Code
IMO	:	International Maritime Organisation
ISGOTT	:	International Safety Guide for Oil Tankers and Terminals
ISO	:	International Organization for Standardization
MOLAS	:	Models Of LNG Ageing During Ship Transportation
MPMS	:	Manual of Petroleum Measurement Standards

MSDS	:	Material safety data sheet
N <sub>2</sub>	:	Nitrogen
NBS	:	National Bureau of Statistics (US)
NG	:	Natural Gas
OBQ	:	On board quantity
OCT	:	Opening Custody Transfer
GCV	:	Gross Calorific Value
SAT	:	Site Acceptance Test – performed on board the terminal
SRG	:	Snam Rete Gas
WI	:	Wobbe Index
Z	:	Compressibility

6.2. List of referenced standards with their full titles

#### Courtesy English Translation (not binding – only the Italian version is binding) Annex 8: LNG Quality Specifications

## Measurement

**ISO 10976** Refrigerated light hydrocarbon fluids – Measurement of cargoes onboard LNG carriers

**ISO 5725-1** Accuracy (Trueness and precision) of measurement methods and results - Part 1: General Principles and definitions

**ISO 18132-1** Refrigerated hydrocarbon and non-petroleum based liquefied gaseous fuels -- General requirements for automatic tank gauges -- Part 1: Automatic tank gauges for liquefied natural gas on board marine carriers and floating storage.

**ISO 8311** Refrigerated light hydrocarbon fluids – Calibration of membrane tanks and independent prismatic tanks in ships – Physical measurement.

**ISO 8943** Refrigerated light hydrocarbon fluids -- Sampling of liquefied natural gas -- Continuous and intermittent methods.

**ISO 10715** Natural gas – Sampling guidelines

#### Analyses

ISO 6326-4Natural gas -- Determination of sulphur compounds -- Part 4: Gas chromatographicmethod using a flame photometric detector for the determination of hydrogen sulphide, carbonylsulphide and sulphur-containing odorants- see below

**ISO 19739** Natural gas – Determination of sulphur compounds using gas chromatography

**ISO 6974** ISO 6974 comprises 6 parts, parts 1 and 2 being guidelines and measuring-system characteristics and statistics for processing of data, parts 3 to 6 being the test methods.

**ISO 6974-1** BS EN ISO 6974-1 Natural gas - Determination of composition with defined uncertainty by gas chromatography. Guidelines for tailored analysis

**ISO 6974-2** BS EN ISO 6974-2 Natural gas - Determination of composition with defined uncertainty by gas chromatography. Measuring-system characteristics and statistics for processing of data

**ISO 6974-3** BS EN ISO 6974-3 Natural gas. - Determination of composition with defined uncertainty by gas chromatography. Determination of hydrogen, helium, oxygen, nitrogen, carbon dioxide and hydrocarbons up to C8 using two packed columns

**ISO 6974-4** BS EN ISO 6974-4 Natural gas - Determination of composition with defined uncertainty by gas chromatography. Determination of nitrogen, carbon dioxide and C1 to C5 and C6+ hydrocarbons for a laboratory and on-line measuring system using two columns

**ISO 6974-5** BS EN ISO 6974-5 Natural gas - Determination of composition with defined uncertainty by gas chromatography. Determination of nitrogen, carbon dioxide and C1 to C5 and C6+ hydrocarbons for a laboratory and on-line process application using three columns

**ISO 6974-6** BS EN ISO 6974-6 Natural gas - Determination of composition with defined uncertainty by gas chromatography. Determination of hydrogen, helium, oxygen, nitrogen, carbon dioxide and C1 to C8 hydrocarbons using three capillary columns.

**ISO 10715** Natural gas - Sampling guidelines

UNI EN ISO 10715 Italian Natural Gas Standard – Sampling Guidelines.

GPA 2261 Analysis for Natural Gas and Similar Gaseous Mixtures by Gas Chromatography

ASTM D1945 -03 Standard Test Method For Analysis of Natural gas by Gas Chroma