LNG ACCESS CODE FOR TRUCK LOADING

FOR THE ZEEBRUGGE LNG TERMINAL

Contents

1 INTRODUCTION

1.1 PURPOSE

This LNG Access Code for Truck Loading consists of a standard set of rules and procedures governing regulated access to the LNG Services offered by Terminal Operator, as detailed in ACTL 2.1, to any Client using the LNG Terminal operated by the Terminal Operator.

1.2 SCOPE

This LNG Access Code for Truck Loading shall apply to all Clients subscribing to LNG Services offered by the Terminal Operator within the framework of this LNG Access Code for Truck Loading.

1.3 DEFINITIONS

Unless given any different meaning in this LNG Access Code for Truck Loading, any capitalised term in this LNG Access Code for Truck Loading shall have the meaning given to it in Chapter 5 of this LNG Access Code for Truck Loading.

1.4 INTERPRETATION

In this LNG Access Code for Truck Loading:

(i) the singular includes the plural and vice versa as appropriate, except where appropriate for the terms Shipper, Terminal User, Client, Client's Shipper, Party, and Terminal Operator;

(ii) reference to any gender includes the other;

(iii) unless otherwise specifically stated, references to 'ACTL' shall be to a section or a clause in this LNG Access Code for Truck Loading;

(iv) clause and section headings and the table of contents are inserted for convenience only and do not affect the construction or interpretation of this LNG Access Code for Truck Loading;

(v) unless otherwise stated, reference to an agreement, instrument or procedures is to the same as amended, modified or replaced from time to time;

(vi) reference to a statute, by-law, regulation, rule, delegated legislation or order is to the same as amended, modified or replaced, from time to time, and to any by-law, regulation, rule, delegated legislation or order made there under;

(vii) references to time are, unless otherwise stated, references to local Belgian time and shall be written as hh:mm hours, where hh is the hour number between 0 and 23 and mm is the minutes number between 0 and 59. No indication AM or PM will be provided. References to Day, Month and Year are, unless otherwise stated, references to a day, month and year of the Gregorian calendar respectively; and

(viii) The forms included in section 4.1 of this ACTL are indicatively. The Terminal Operator reserves the right to amend the content of the forms.

1.5 AMENDMENTS TO THE LNG ACCESS CODE FOR TRUCK LOADING

Terminal Operator shall be entitled to make amendments to this LNG Access Code for Truck Loading by consulting Clients in accordance with the applicable legislation and regulation prior to such amendments, subject to the prior approval by the CREG, if and when required, before their entry into force.

2 SERVICES

2.1 DESCRIPTION OF LNG SERVICES

2.1.1 LNG Truck Loading Service

LNG Truck Loading Service means the service consisting of the loading of an LNG Truck by Terminal Operator at the LNG Terminal in accordance with the provisions of this LNG Access Code for Truck Loading.

Terminal Operator shall provide to Client the LNG Truck Loading Services as subscribed to by Client in the Service Confirmation Form.

The Monthly Capacity Charge for LNG Truck Loading Services amounts to one (1) divided by the Service Term (expressed in Months) multiplied by the LNG Truck Loading Service Right during the relevant Contract Year multiplied by the applicable Regulated Tariff as approved by CREG.

2.1.2 LNG Truck Cool Down Service

The LNG Truck Cool Down Service is an optional service. Such optional service, consisting of the cooling down of the Client's Trailer by the Terminal Operator in order to meet the Specifications outlined in ACTL 3.3, requested in advance by the Client, is provided by the Terminal Operator only with and immediately prior to the LNG Truck Loading Service.

The Monthly Capacity Charge for LNG Truck Cool Down Services amounts to the number of LNG Truck Cool Down Service(s) of the past Billable Period multiplied by the applicable Regulated Tariff as approved by CREG.

2.1.3 LNG Truck Approval Service

Consists of a compulsory service required for every different Client's Trailer prior to the performance of LNG Truck Loading Services in accordance with the provisions of ACTL 3.2.

The Monthly Capacity Charge for LNG Truck Approval Services amounts to the number of LNG Truck Approval Service(s) of the past Billable Period multiplied by the applicable Regulated Tariff as approved by CREG.

2.2 ALLOCATION OF LNG TRUCK LOADING SERVICES (PRIMARY MARKET)

2.2.1 Allocation of capacities

The available capacities on the Primary Market for LNG Truck Loading Services will be offered to the market either via:

(i) a Subscription Window; or

(ii) an open season in accordance with the Code of Conduct for capacities for which an investment decision is still to be taken by the Terminal Operator, (as the case may be).

In case capacity is still available at the end of the corresponding Subscription Window or open season, such LNG Truck Loading Services will be allocated on a "*first committed/first served"* basis, based upon the date and time of receipt of the binding request until the next Subscription Window. The allocation on a "first committed/first served" basis is subject to an Availability Check.

The organisation of a Subscription Window for LNG Truck Loading Services is performed annually by the Terminal Operator depending on whether sufficient capacities are available and in function of the market signals (including but not limited to amongst others changes in economic circumstances, emerging needs of Clients, etc...).

2.2.2 Rules and organisation of a Subscription Window

2.2.2.1 Before the start of such Subscription Window, the Terminal Operator establishes a detailed procedure providing the "terms and conditions" for the respective window for subscribing and allocating such LNG Truck Loading Services and informs on its website about the applicable terms and conditions and the specific calendar of such window.

Such terms and conditions will specify the practical information applicable for a specific Subscription Window, in line with the provisions of this LNG Access Code for Truck Loading, and shall include amongst others and not limited to the following provisions:

- the offered LNG Truck Loading Services of the Subscription Window;
- the possible duration and start date for the offered LNG Truck Loading Services, expressed in multiples of one (1) Year (unless specified otherwise);
- the opening date and closing date of the Subscription Window; and
- the allocation rules of the Subscription Window.

The CREG shall be informed one (1) Month in advance of the terms and conditions for a Subscription Window.

2.2.2.2 The Clients interested in booking capacity under the Subscription Window are required to submit their binding Service Request Form for Contracting (SRFC), duly completed and executed before the end of the Subscription Window.

In accordance with the terms and conditions of the related Subscription Window, the Client shall indicate in its binding request amongst others and not limited to:

1. For those LNG Truck Loading Services the participant is willing to subscribe:
   - a minimum request under which Client is not interested in subscribing the LNG Truck Loading Services ("Minimum Request"); and
   - a maximum request, for which Client is requesting to subscribe the LNG Truck Loading Services ("Maximum Request"). The stated Maximum Request may not exceed the offer; and
2. The start date and the duration of the LNG Truck Loading Services.

The binding request is deemed to have been committed as from the Service Start Date onwards for the requested duration.

2.2.2.3 Available capacity of LNG Truck Loading Services under the Subscription Window shall be allocated as follows:

(i) If the total requested Starting Hours is less than or equal to the available Starting Hours offered in the Subscription Window, each Client will be allocated the Starting Hours requested;

(ii) If the total requested Starting Hours is more than the available Starting Hours offered in the Subscription Window. Binding requests will be allocated as follows:

(a) priority will be given to the binding requests with longer duration;

(b) between binding requests with the same duration:

i. the available Starting Hours will be allocated pro rata the Starting Hours requested;

ii. if the application of the proportional allocation rule results in a certain number of Starting Hours being allocated to a Client which is less than the Minimum Request indicated by this Client, no Starting Hours will be allocated to this Client; and

iii. the Starting Hours, which has not been allocated to certain Clients will be allocated pro rata the Starting Hours requested to the other Clients insofar the Minimum Requests of the other Clients are met.

2.3 SECONDARY MARKET

2.3.1 Assignment of LNG Truck Loading Services

Subject to the provisions of ACTL 2.3, the LNG Truck Loading Services acquired on the Primary Market may be traded on the Secondary Market directly between the Clients (i.e. over the counter / "OTC") in which case the Terminal Operator will be notified by means of a Service Request Form for Assignment (SRFA) duly signed by both Clients of the assignment.

Service Request Forms for Assignment are subject to the acceptance of the Terminal Operator according to the provisions of ACTL 2.3.4.

In order to facilitate the trading on the Secondary Market, the Terminal Operator, when notified by the Client, shall publish a notice on the Bulletin Board indicating that LNG Truck Loading Service(s) became available for sale. The Terminal Operator shall however not perform any trades on the Secondary Market on behalf of the Client.

2.3.2 General conditions

The following conditions apply to the trading of LNG Truck Loading Services on the Secondary Market:

- Trading of LNG Truck Loading Services on the Secondary Market entails the transfer of rights and obligations in accordance with the LNG Agreement for Truck Loading of the LNG Truck Loading Services traded; and
- The Truck Loading Services traded are not impacted by trading on the Secondary Market (e.g. a firm LNG Truck Loading Service subscribed on the Primary Market remains a firm LNG Truck Loading service on the Secondary Market).

2.3.3 Notice of non-use of LNG Truck Loading Services

In accordance with the Code of Conduct, the Client shall offer on the Secondary Market any LNG Truck Loading Service subscribed that Client temporarily or permanently does not intend to utilise.

2.3.4 Assignment procedure

For the LNG Truck Loading Services offered on the Secondary Market, the Terminal Operator analyses the received Service Request Form For Assignment (SRFA) for acceptance by checking the following non-exhaustive criteria:

- The creditworthiness;
- The LNG Truck Loading Service(s) offered; and
- Whether the SRFA has been received on time (i.e. two (2) Business Days prior to the start of the assignment period) and had been duly signed by all relevant parties.

Upon acceptance, the Terminal Operator will forward a Service Confirmation Form For Assignment (SCFA) to the Client.

3 PROCEDURES

3.1 OPERATING RULES FOR LNG TRUCK LOADING

3.1.1 Scheduling procedures

As from the Service Start Date, Terminal Operator shall accept a Client's Trailer in order to provide LNG Truck Loading Services and LNG Truck Cool Down Services if applicable, subject to the conditions set out below.

3.1.1.1 As from the Scheduling Time which starts at noon on the 3rd Business Day after the closing date of a Subscription Window, Terminal Operator allows scheduling its available Starting Hours for the Contract Years offered during a Subscription Window. In the case of an open season, the Scheduling Time will be close to the commercial start date of the new infrastructure and confirmed by the Terminal Operator to the relevant Clients with 30 days prior notice.

When LNG Truck Loading Services are booked on a first come first served basis in accordance with ACTL 2.2.1, the Client may immediately schedule Starting hours in accordance with ACTL 3.1.1.2 provided that,

- for LNG Truck Loading Services previously offered during an open season, the relevant Scheduling Time has started; and
- no Subscription Window in which LNG Truck Loading Services are offered for the same period is currently ongoing.

In order to provide sufficient flexibility to the truck companies for booking their Starting Hours, the number of Starting Hours available per Contract Year for scheduling will be greater than the total offered capacity offered for that Contract Year on the Primary Market.

3.1.1.2 Apart from the LNG Truck Cool Down Services, the Client can book online each Starting Hour on a "first committed/first served" basis as long as the total number of already booked Starting Hours do not exceed the Client's subscribed LNG Truck Loading Service Right. Starting Hours booked by the Client which have not been cancelled by Client before 11 AM of the Gas Day preceding the truck loading, will be considered as used and thus payable Starting Hours regardless of whether Client's Trailer is finally loaded or not. Furthermore, the booked Starting Hours will only be executed once they have been confirmed by the Client's Shipper in the online system.

As for the LNG Truck Cool Down Services, the Client shall formally contact the Terminal Operator. Starting Hour(s) will be entered in the system by the Terminal Operator on behalf of the Client in mutual consent. The Client will be duly informed by Terminal Operator about any update related to Client's Starting Hour(s).

3.1.1.3 When the Client books a Starting Hour, the Client shall indicate:

I. the Client's Trailer code (as assigned by Terminal Operator upon Client's Trailer approval).

II. which quantity of LNG expressed in m³ LNG the Client requests to be loaded and is to be confirmed by Client's Shipper.

III. from which Client's Shipper the Client requests to obtain the LNG.

3.1.1.4 Starting Hours indicating the quantity of LNG (II) and the Client's Shipper (III) are available for confirmation by the indicated Client's Shipper. By confirming a Starting Hour, the Client's Shipper consents that:

- a maximum of the indicated quantity of LNG (expressed in m³) will be loaded into Client's Trailer when the LNG Truck Loading Service is performed; and
- that the Client's Shipper's GIS will be reduced with the actual quantity of LNG, expressed in kWh, loaded into the Client's Trailer after performing the LNG Truck Loading Service and LNG Truck Cool Down Services (if applicable) in accordance with the provisions of the LNG Access Code.

The Client's Shipper is enabled in the online system to confirm a Starting Hour until 11 AM of the Gas Day preceding the Gas Day of the Starting Hour except during the Freeze Period.

3.1.1.5 The Client is able to cancel or edit Client's Starting Hour until 11 AM of the Gas Day preceding the Gas Day of the Starting Hour. All data indicated in Client's Starting Hour according to ACTL 3.1.1.3 can be edited. Furthermore, the Client can complete each Starting Hour, besides to the quantity of LNG already expressed in m³, with a quantity of LNG expressed in either ton or percentage filling level of Client's Trailer. It should be noted that the quantity of LNG expressed in m³ confirmed by the Client's Shipper cannot be exceeded.

In addition, Client may contact the Terminal Operator as soon as possible to request a maximum gross weight on the weighing bridge, Terminal Operator shall, subject to technical constraints at that time, not exceed this maximum limit of the gross weight.

In case of any editing of Client's Starting Hour, except for change of Client's Trailer (I) or the quantity of LNG (II) being decreased, then any existing confirmation of the Starting Hour is cancelled and the Client's Shipper needs to reconfirm the corresponding Starting Hour in the online system.

The handling of LNG Ships (i.e. both unloading and loading operations) has priority on the LNG Truck Loading Service and LNG Truck Cool Down Services (if applicable). In case handling of an LNG Ship causing Terminal Operator not being able to perform the LNG Truck Loading Service and LNG Truck Cool Down Services (if applicable) on Client's Starting Hour, Terminal Operator shall inform the Client as soon as possible. Terminal Operator and Client shall either formally reschedule the Client's Starting Hour in mutual consent or the Client's Starting Hour shall be considered as been cancelled before 11AM of the Gas Day preceding the Gas Day of the Starting Hour.

In case a Force Majeure event causes Terminal Operator not being able to perform the LNG Truck Loading Service and LNG Truck Cool Down Services (if applicable) on Client's

Starting Hour, Terminal Operator shall inform the Client as soon as possible in accordance with the relevant provisions of the LTL.

In case maintenance causes Terminal Operator not being able to perform the LNG Truck Loading Service and LNG Truck Cool Down Services (if applicable) on Client's Starting Hour, Terminal Operator shall inform the Client as soon as possible in accordance with the relevant provisions of ACTL 3.5.2.2 and 3.5.3.3.

For the avoidance of doubt, Terminal Operator shall use all reasonable endeavours to perform the LNG Truck Loading Service and LNG Truck Cool Down Services (if applicable) as scheduled by the Client and thus to minimize the possible operational impact following the occurrence of the events mentioned in ACTL 3.1.1.5.

3.1.1.6 In case of unavailability of the online system (applicable to both ACTL 3.1.1.2 and 3.1.1.5), Client is entitled to contact Terminal Operator by either fax or email to request Starting Hour(s) by using the request for LNG Truck Loading notice template as enclosed to ACTL 4.6. Consequently, Client's Shipper shall forward the delivery notification template to confirm the request for LNG Truck Loading notice made previously by the Client as enclosed to ACTL 4.5. Starting Hour(s) will be entered in the system by Terminal Operator on behalf of the Client on a "first committed/first served basis. The Client will be duly informed by Terminal Operator about any update related to Client's Starting Hour(s).

3.1.2 Notice of readiness for truck loading

After 11 AM of the Gas Day preceding the Gas Day of the Client's Starting Hour confirmed by a Client's Shipper, a notice of readiness for truck loading shall be sent by the Terminal Operator to the Client, containing a by the system randomly generated unique identifier for the Starting Hour.

This unique identifier is to be presented by the Trucker upon arrival at the LNG Terminal in accordance with the provisions of ACTL 3.1.4.

3.1.3 Early and late arrivals

3.1.3.1 In case the Client's Trailer arrives before Client's Starting Hour, Terminal Operator has the right not to perform the LNG Truck Loading Service and LNG Truck Cool Down Services (if applicable) before the Client's Starting Hour, subject to other booked Starting Hours.

3.1.3.2 In case Client's Trailer arrives after Client's Starting Hour but no later than 30 minutes after Client's Starting Hour, Terminal Operator shall use all reasonable endeavours to immediately perform the LNG Truck Loading Service and LNG Truck Cool Down Services (if applicable), restricted however to the Freeze Period concerned and without additional costs for Terminal Operator and without additional charged LNG Truck Loading Services for Client.

3.1.3.3 In case Client's Trailer arrives after Client's Starting Hour and later than 30 minutes but no later than the Freeze Period at the time of Client's Starting Hour, Terminal Operator shall use all reasonable endeavours to perform the LNG Truck Loading Service and LNG Truck Cool Down Services (if applicable) after Client's Starting Hour, restricted however to the Freeze Period concerned and subject to not affecting other booked Starting Hours and without additional costs for Terminal Operator and without additional charged LNG Truck Loading Services for Client.

In case Client's Trailer arrives after Client's Starting Hour and later than 30 minutes and later than the Freeze Period at the time of Client's Starting Hour, Terminal Operator has the right to refuse to perform the LNG Truck Loading Service and LNG Truck Cool Down Services (if applicable) and an additional LNG Truck Loading Service will be charged if the LNG Truck Loading Service would be performed both (i) subject to availability and (ii) without affecting other already booked Starting Hours.

Terminal Operator cannot be held liable for any consequence due to an early or late arrival of a Client's Trailer compared to Client's Starting Hour.

3.1.3.4 The Terminal Operator shall treat all Clients on a non-discriminatory and equal basis when applying ACTL 3.1.3.

3.1.4 Arrival & loading procedure

3.1.4.1 Upon arrival at the LNG Terminal, the Trucker shall report to the security guard who will check:

(i) Trucker's identity;

(ii) Unique identifier of Client's Starting Hour

(iii) LIMOSA declaration for foreign employees and self-employed (if applicable); and

(iv) ADR identification papers.

In case all of the above checks are positive, the security guard will contact the main control room of the LNG Terminal for "approval to proceed to the LNG Truck Loading Station". In case approval is granted by the main control room, the Trucker will be allowed by the security guard to drive the Client's Trailer to the LNG Truck Loading Station under the supervision of the LNG Terminal personnel.

3.1.4.2 The complete loading operation of the Client's Trailer will be executed by the LNG Terminal personnel, the Trucker can only give assistance (such as opening valves, connecting the truck to the Truck Loading Station, etc.) during such operation, upon request of the LNG Terminal personnel.

3.1.4.3 The Client's Trailer shall arrive to at the LNG Terminal in cold condition, which means a boil-off gas temperature below –120° C. In case the Client's Trailer does not meet the temperature specifications set out under this section, a LNG Truck Cool Down Service shall

be charged to Client, when the LNG Truck Cool Down Service is performed, subject to availability of the LNG Truck Loading scheduling.

3.1.4.4 Under no circumstances traces of oxygen, carbon dioxide, water vapour or any other contaminants or impurities are allowed inside the Client's Trailer vessel or its associated piping. Terminal Operator shall be entitled to carry out spot checks for ppm levels of O_2, CO_2 or water vapour or other contaminants. In case the Client's Trailer shows ppm levels of O_2, CO_2 or water vapour or other contaminants above the limits mentioned below, Terminal Operator has the right to refuse to load LNG into the Client's Trailer.

For the avoidance of doubt, Client shall ensure that, upon arrival at the LNG Terminal, Client's Trailer shall be under natural gas atmosphere in cold condition with the following gas specifications:

(a) maximum 1 ppm H_2O vapour;

(b) maximum 100 ppm CO_2; and

(c) maximum 100 ppm O_2.

or, shall be under inerted nitrogen atmosphere in cold condition with the following gas specifications (trace components):

(a) maximum 1 ppm H_2O vapour;

(b) maximum 100 ppm O_2.

3.1.4.5 Terminal Operator has the right to refuse access of the Client's Trailer to the LNG Terminal and to refuse to load LNG on the Client's Trailer in case the Client does not respect all the provisions of section 3 of the ACTL. In case of violations against the system integrity or safety, Terminal Operator has the right to refuse access of the Client's Trailer to the LNG Terminal.

3.1.4.6 Terminal Operator shall at no time be obliged to redeliver to the Client at the Redelivery Point a quantity of LNG greater than Client's Shipper's Gas In Storage account of LNG at the LNG Terminal at that time.

3.1.4.7 The Trucker will spontaneously upon arrival at the LNG Terminal submit for review by the LNG Terminal personnel all required and relevant transportation documents. More specifically, the Trucker will provide a copy of:

(i) the ADR document stating "empty" if and when the Client's Trailer is arriving under a natural gas atmosphere, as set out under section 3.1.4.4, 2nd paragraph; or

(ii) the ADR document stating "inert" if and when the Client's Trailer is arriving under an inerted nitrogen atmosphere, as set out under section 3.1.4.4, 3rd paragraph.

At any time and upon simple request, each Trucker shall show:

(i) a valid and authentic, original ADR-certificate for review by a LNG Terminal representative;

(ii) the ADR-inspection certificate of the Client's Trailer;

(iii) valid Trucker's ID with photograph; and/or

(iv) a written statement from Client that Client has implemented a security plan (ISPS) according to section 1.10.3.2.2 of the ADR and has provided the necessary training concerning security aspects according to section 1.3 and section 1.10.2 of the ADR.

The Trucker will collaborate to all inspections required by any LNG Terminal representative to be executed in accordance with section 7.5.1.2 of the ADR legislation (inspection of documents, visual inspection of the vehicle and the loading equipment).

3.1.4.8 After completion of the loading operation, Terminal Operator shall provide the Trucker with the Quality and Quantity Document, using the form enclosed in ACTL 4.7. Client shall provide the CMR transport document and any other documents that are required by regulations, including ADR (and IMDG as the case may be). Client shall ensure that the Trucker has all these documents in hand before leaving the LNG Truck Loading station.

In addition, the Quality & Quantity Document will also be available electronically for convenience purposes by the Terminal Operator for the corresponding Client and Client's Shipper.

3.1.5 LNG Truck Loading Station data & safety

3.1.5.1 The Terminal Operator shall deliver the requested quantity of LNG up to the maximum quantity allowed by the safety procedures of the LNG Terminal. The maximum loading rate will be 120 m^3 LNG/h. Maximum filling pressure is 5 barg. The LNG Truck Loading Station is equipped with a weighbridge, so that the loaded weight is continuously monitored. The typical loading time for a LNG trailer in optimal, cold condition is estimated at ¾ of an hour.

3.1.5.2 The Parties recognize the importance of securing and maintaining safety in all matters contemplated in this Access Code for Truck Loading including the operation of their respective facilities and also including transportation of LNG and it is their intention to secure and maintain high standards of safety in accordance with the generally accepted standards prevailing in the LNG industry.

3.1.5.3 Terminal Operator shall at all times procure a LNG Truck Loading Station having high safety standards and provided with appropriately qualified and suitably trained personnel.

3.1.5.4 The Client shall, at all times throughout the term of this Access Code for Truck Loading provide, maintain and operate or cause to be provided, maintained and operated in good working order and with high standards of safety the Client's Trailer in order to fulfil its obligations under this agreement.

3.1.5.5 Terminal Operator and the Client shall each cause their respective agents to respect safety provisions and shall respect all relevant regulations of competent authorities while they are performing works and services defined in this Access Code for Truck Loading. Each Party

shall make appropriate arrangements with any agents for performance by these agents of this undertaking.

3.2 LNG TRUCK APPROVAL PROCEDURE

This LNG Truck Approval Procedure describes the procedure for approval of a Client's Trailer to be complied with by the Client in order to obtain a Client's Trailer, as a prerequisite in order to be able to perform LNG Truck Loading Services and/or LNG Truck Cool Down Services (if applicable) at the LNG Terminal.

3.2.1 Request for truck approval and preliminary information exchange

The main objective of this stage is to collect all of the required information (documents, data, and plans) in order to determine the compatibility between the Client's Trailer and the LNG Truck Loading Station.

When a Client intends to use an LNG truck, not yet approved in accordance with this ACTL 3.2, and therefore not listed on the list of approved LNG trucks for the LNG Terminal, Client has to complete the 'request for LNG truck approval' form as published on our website (as enclosed in ACTL 4.4). The request for truck approval will only be accepted if and when duly completed.

Upon receiving a duly completed request for LNG truck approval, Terminal Operator shall inform Client when the LNG Truck Approval Procedure can be started, after which the necessary information exchange, as set out hereafter, between Terminal Operator and Client can proceed.

3.2.1.1 Information to be submitted by Client to the Terminal Operator

Terminal Operator shall send via e-mail to Client a truck approval checklist mentioning the following required information:

a. Dimensions of the Client's Trailer (length, width, height);
b. Location of the flanges and dimensions (pictures);
c. Pictures of the Client's Trailer;
d. Technical data and P&ID of the Client's Trailer (mentioning for instance maximum volume, maximum pressure, measurement equipment, safety system to prevent overfilling, and the set point of the relief valves and trycocks as a function of the filling level);
e. Procedure of cooldown and loading operation;
f. Client last annual report of its ADR safety advisor;
g. Safety impact analysis study.

The Client shall respond via e-mail to the truck approval checklist.

The safety impact analysis study, mentioned in point g) above, sets forth the instructions for a side and overturning impact analysis and report based on the finite element method (FEM) – compliance of the LNG truck with technical and safety standards (ref. Fluxys, FVDW/2010-06-08, version 1.01).

In the framework of the LNG Truck Approval Procedure, the Client shall submit a well substantiated and documented calculation note regarding a finite element impact analysis study on the (super) vacuum insulated Client's Trailer or an LNG ISO-container fixed on a suitable ISO-container platform Client's Trailer, as the case may be, as proposed by the Client.

The purpose of this safety impact analysis study is:

(i) to analyze the behavior of both the outer and inner tank in the event of severe accidental impacts as outlined below;

(ii) to verify and demonstrate that these impacts do not result in stresses exceeding the yield stress (0.2%) of the inner tank, and that there is no deformation of the inner tank resulting in rupturing and eventually spillage of LNG;

(iii) to verify and demonstrate that these impacts do not result in stresses exceeding the yield stress (0.2%) of the internal tank stiffeners and internal supports between inner and outer tank; and

(iv) to verify and demonstrate that there is no deformation of the outer tank (vacuum insulated jacket) resulting in loss of vacuum.

The safety impact analysis study comprehends an accidental impact analysis which shall be based on the following two assumptions:

a) Side impact: the Client's Trailer or the LNG ISO-container fixed on a suitable ISO-container platform Client's Trailer, is accidentally impacted sideways halfway its length by a force of 110 kN with a dynamic effect factor of 1.4, resulting in a force of 154 kN (15,4 ton), impacting the tank halfway its length – i.e. in its weakest area - on a lateral surface of 1.400 x 1.400 m, i.e. 1.96 m².

b) Overturning impact: the Client's Trailer or the LNG ISO-container fixed on a suitable ISO-container platform Client's Trailer, is overturned and upon impact with the road surface is evenly exposed to a force of 500 kN (50 ton) over its full length and a width of 0.800 m along the whole length of the tank, i.e. the part of the outer tank surface in full contact surface with the flat road surface.

The report of the said impact analysis study shall have the following sections as a minimum:

I. Executive summary.

II. Introduction and context.

III. Description of the geometry and specification of all relevant design details and reference data, including details on the tank stiffeners and supports.

IV. Material mechanical properties with reference to standards and codes such as ASME, and reference temperatures for each of these properties.

V. Description of the boundary conditions, the model and loads considered for finite element ("FE") analysis, the calculation method and the code used for the FE calculations. Each and all of these shall be well established and widely used and recognized by independent surveying and inspection companies.

VI. Results of the FE analysis.

VII. Discussion of these FE results.

VIII. Conclusion

IX. Figures and appendices

X. References

In the respect of the LNG Truck Approval Procedure, the following are the minimum technical requirements for each of the Client's Trailers:

(i) The Client's Trailer shall conform in each and all respects to the ADR regulations, and also to the IMDG code T75 for containers or IMO(8) for semi-trailers, as the case may be. The Client's Trailer consisting of the truck with the Trucker(s) and the Client's Trailer should fully comply with the ADR class for public road transportation of LNG that is currently in force. Moreover, the Client should at all times be an ISO 9002 accredited company. The route to and from the Zeebrugge LNG Terminal as prescribed by the city of Bruges shall be strictly adhered to;

(ii) Each Client's Trailer shall be super vacuum insulated and equipped with three rear-axles and designed for maximum road stability (both static and dynamic), comprising amongst others the lowest possible ratio "height of the centre of gravity/rear track width";

(iii) The material of the outer vessel shall be either stainless steel or carbon steel i.e. with sufficient mechanical and thermal resistance up to temperatures of 700 °C and even higher (e.g. in the event of a calamity involving a fire);

(iv) The material of the inner vessel shall be stainless steel;

(v) The valve cabinet of the Client's Trailer shall be located at the rear or the side of the trailer, with easy and ergonomic access to the valves and all other equipment to be operated in normal and in emergency conditions;

(vi) Each Client's Trailer shall have a sturdy and reliable equipotential earth connection, either inside the valve cabinet or nearby it. This connection is required for an emergency shutdown circuit, in the event of an insufficient equipotential earthing;

(vii) The Client's Trailers shall be equipped with a device to check the temperature in order to ascertain that the Client's Trailers arrive at the LNG Terminal in cold condition;

(viii) The Client's Trailers shall be equipped with a device to check whether or not the trailer is in an empty condition. A trycock located at maximum allowable filling level of the Client's Trailer is also required to be able to physically double-check if the trailer is fully loaded. The discharge of the trycock(s) shall be at a safe location, i.e. at a safe distance from the valve cabinet and from the emergency buttons of the Client's Trailer.

(ix) Required Client's Trailer coupling:

- LNG line: flange 3" -150# - male coupling half DN65 TR104 x 8 LH threaded (Mat. 1.4571). Messer Griesheim specification 792.10832
- Boil-off line: flange PN40 –DN40 male coupling half DN40 TR69 x 8 LH threaded (mat.: 2.0592.02 & 2.0360.08)

(x) The Client's Trailer shall be equipped with an air connection for emergency shutdown of the Client's Trailer's pneumatic valves so they shall be remotely closed in case of an emergency (= loss of air/nitrogen pressure). Hereto a male quick coupling LEGRIS – 90873021 has to be foreseen on the Client's Trailer. The supply air pressure of the LNG Terminal is 7 bar.

(xi) In order to avoid all possible methane venting before or after the loading operation, the flexible hoses shall be purged with nitrogen. In order to do so:

- the Client's Trailer shall be constructed such that it is possible to purge the hoses from boil-off (gas return) line towards the Client's Trailer and back through the LNG line,
- or alternatively, two male quick couplings ERITITE ETF 50 – Stainless Steel (10037319) shall be installed on the Client's Trailer to purge the both flexible hoses from the Client's Trailer towards the LNG Terminal installations.

(xii) All piping material and assemblies must be according to the following requirements:

- Piping will be made in conformity with the requirements of ASME B31.3 or equivalent.
- Material certificates for the piping parts must be submitted (at least certificates EN 10204 - 3.1).
- All welding procedures, welder qualifications and welds are controlled, checked and certified by an independent inspection organization. The pressure test shall be witnessed by an independent inspector.

The following are minimum requirements for the Trucker(s):

(i) The Client shall send to Terminal Operator a list with the names and the complete professional ADR and LNG curriculum with a copy of the latest valid certificates (including amongst others driver's license and ADR certificate) of each of the Truckers of Client's Trailers. The Client shall ascertain that all its personnel (drivers, operators…) is non-smoking on duty, and shall have the appropriate maturity, training skill and experience so as to enable them to cope appropriately with any circumstance.

(ii) The language used in communication between Trucker and Terminal Operator will be Dutch, English or French.

(iii) At all times the Trucker shall demonstrate a driving style commensurate with the ADR transport with an LNG trailer, which has the particular feature of a rather low road stability due to the high centre of gravity: therefore the Trucker shall at all times have a calm, prudent and defensive driving style, attempting to anticipate any possible moving or fixed obstacles; speed should be reduced well in advance of any road curves or road narrowing, roundabouts, road works or tracks in the road surface.

(iv) The Client guarantees that during the term of this agreement, its Truckers shall not be under the influence of alcohol, nor illegal or non-prescribed substances (if these require a medical prescription in Belgium). The Truckers shall not make abuse of legal medications or drugs, nor shall they possess, use, distribute sell or otherwise trade illegal or (if a prescription is required) non-prescribed medication or drugs, or similar substances. The Truckers shall not possess, use, distribute, sell or otherwise trade any alcoholic beverages while performing services in the scope of this agreement.

(v) Each Trucker shall demonstrate (by his professional curriculum) sufficient experience with ADR transportation of LNG or other cryogenic liquids which are ADR-classified and at least equally hazardous as LNG.

(vi) Prior to the first truck loading operation at the LNG Truck Loading Station of the LNG Terminal, each Trucker shall receive a safety briefing (approx. 1 hour) in Dutch, English or French to familiarize with the specific features of the LNG Truck Loading Station, with special focus on the safety aspects, including the site emergency procedures and the active protection equipment. Likewise the Trucker shall provide a concise "hands-on" training to the available terminal field operator(s), both for normal operations and for emergencies.

3.2.1.2 Information made available by Terminal Operator to the Client

Terminal Operator shall send to the Client the following required information:

(i) The prescribed ADR route to and from LNG Terminal

(ii) General LNG Truck Loading Station-data, if requested:

3.2.2 Truck approval study and preliminary truck approval meeting

3.2.2.1 Truck approval study

Following the examination of the aforementioned information, Terminal Operator shall undertake an interface study to establish the technical acceptability of the Client's Trailer's presence within the LNG Terminal.

In particular, the following criteria will be the subject of a thorough inspection as part of this interface study:

- physical and technical compatibility with the LNG Truck Loading Station;
- professional qualification of the Trucker(s);

- technical compliance of the Client's Trailer and compliance with the safety standards;
- administrative requirements.

3.2.2.2 Preliminary truck approval meeting

Following the document analysis, a preliminary truck approval meeting, attended by at least the Client, shall be organised by the Terminal Operator for every new type of Client's Trailer. The minimum agenda of the preliminary meeting shall be as follows:

- Conclusions of the interface study
- Review of all administration documents
- Operational procedures (cool down, loading, purging)
- Safety and security regulations.

3.2.3 Truck Loading Test and LNG truck approval

3.2.3.1 Truck Loading Test

The first LNG Truck Loading Service operation at the LNG Truck Loading Station shall be considered as a Truck Loading Test of the Client's Trailer.

Where applicable as part of such Truck Loading Test, a list of observations and/or highlighted shortcomings shall be submitted to the Trucker. The list of observations and/or aforementioned shortcomings shall also be communicated to the Client, who shall in turn send it to any other interested parties. Upon acceptance of the schedule for implementing the planned corrective measures, Terminal Operator shall make a statement about receiving the Client's Trailer within the LNG Terminal.

3.2.3.2 Approval of the Client's Trailer

According to the outcome of the previous stages and the Truck Loading Test, the Client's Trailer will be approved or authorised, awaiting corrective measures. Terminal Operator shall inform the Client of its approval or not within five (5) Business Days of the Truck Loading Test.

Depending on the results of the Truck Loading Test, Terminal Operator shall determine whether:

- The Client's Trailer has been granted the required approval without having to undergo other loading tests. As conclusion hereof, Terminal Operator shall add Client's Trailer to the list of approved LNG trucks for the LNG Terminal. The approval is valid for a period of five (5) years.
- The Client's Trailer could be authorised to undertake another loading test at a later date subject to the application of the corrective measures specified for the aforementioned Client's Trailer by Terminal Operator.

- The Client's Trailer will no longer be accepted at the LNG Truck Loading Station.

3.2.4 Client's Trailer follow-up after approval

The Client shall obtain, renew and retain all of the authorisations required by law (technical, operating and/or safety), without resulting in any Monthly Capacity Charge for LNG Truck Approval Services due.

Terminal Operator will be kept informed of any change made to the Client's Trailer for the purpose of resolving any technical, safety and/or management problems. Based on this information, where applicable, Terminal Operator shall proceed with an evaluation of the need to subject the approved Client's Trailer to a new approval procedure. For the avoidance of doubt, the Monthly Capacity Charge for LNG Truck Approval Services will only be due in case Client's Trailer is subject to a new approval procedure.

Acting as Reasonable and Prudent Operator, Terminal Operator is entitled to require technical and safety inspections at any time in order to assess the compliance of the approved Client's Trailer with the safety regulations and/or the operating requirements of the LNG Terminal. After performing these technical and safety inspections, Terminal Operator shall determine whether:

- The Client's Trailer has been granted the required approval without having to undergo other loading tests. As conclusion hereof, Terminal Operator shall add Client's Trailer to the list of approved LNG Trucks for the LNG Terminal. The, approval is valid for a period of five (5) years.
- The Client's Trailer could be authorised to undertake another loading test at a later date subject to the application of the corrective measures specified for the aforementioned Client's Trailer by Terminal Operator.
- The Client's Trailer will no longer be accepted at the LNG Truck Loading Station.

The Client shall provide its support to the Terminal Operator at the appropriate time to clarify and/or resolve any urgent problem likely to occur (for instance timely renew obligatory documents, in good time communicate any modification to trucks, etc...).

3.3 SPECIFICATION FOR LNG AT THE REDELIVERY POINT FOR TRUCK LOADING

3.3.1 LNG Specification for the Redelivery Point for Truck Loading

Provided the LNG delivered by the Shipper complied with the quality requirements outlined in the LNG Access Code, the LNG redelivered by Terminal Operator to Client at the Redelivery Point for Truck Loading shall comply with the quality requirements outlined below:

	Unit	**Minimum**	**Maximum**
Nitrogen	mol %	0	1.2
Methane	mol %	80	100
GHV	$kWh/m^3(n)$	10.83	12.43
Wobbe Number	$kWh/m^3(n)$	14.17	15.56

3.4 TESTING AND MEASURING METHODS

The following contains the detailed procedures for determining the LNG mass loaded into Client's Trailers and calculating the density, Gross Heating Value of LNG and total energy redelivered at the Redelivery Point for Truck Loading.

Section I – Weighbridge

For the delivery of Truck Loading Services and Truck Cool Down Services (as the case may be), the Client's Trailer is continuously standing on a calibrated weighbridge. At arrival, the Client's Trailer shall be weighed in "empty" condition, i.e. without any person and without any hoses connected.

Upon completion of the loading operation, the Client's Trailer shall be weighted in "loaded" condition, again without any person and after the hoses have been disconnected and moved aside. Terminal Operator shall determine the quantity (mass) of LNG delivered to Client by subtracting the "empty" weight from the "loaded" weight. This weight shall be calculated and rounded to the nearest kilogram (1 kg).

Once a year the weighbridge is being recalibrated by a certified independent party. The accuracy of the weighbridge shall never exceed +/- 0,25 % in any case.

Should the weight measure referred to in Section I is impossible to obtain due to a failure of the weighbridge, Terminal Operator shall at its own cost determine the redelivered quantity (mass) of LNG by use of another calibrated weighbridge. The choice of such another weighbridge shall be mutually agreed between Terminal Operator and Client.

Section II –Composition of LNG

II.1 Determination of composition of LNG

In accordance with the provisions of the AC, the LNG Terminal has a tank management system which continuously monitors the storage tank's levels, temperatures and LNG qualities. The quality of the LNG redelivered to Client shall be the quality of the LNG in the storage tank from which the LNG is loaded, as determined by the LNG Terminal's tank management system. In addition to the LNG Terminal's tank management system, Terminal Operator shall also sample and analyse LNG delivered to Client's Trailer by the discontinuous sampling method as described in EN 12838 (European standard). LNG samples flow from all storage tank's discharge lines at the LNG Terminal and shall be continuously vaporized, and discontinuous samples shall be subsequently analysed by gas chromatography at regular intervals but at least every ten (10) minutes during truck loading operations. These analysis results shall be amongst others used for on-line monitoring of LNG Truck Loading operations.

Except in the event of manifest error or the application of this section II, the results from the LNG Terminal's tank management system shall always prevail over results of the discontinuous system with regard to LNG Truck Loading operations. If the LNG Terminal's tank management system fails for any reason, the Parties agree to use the analysis results obtained using the discontinuous sampling method. Such analysis results will be the average of all analyses performed during full rate LNG Truck Loading. Individual erroneous analysis results may be discounted from the calculated average provided that all such results are reported to and agreed by Client's Shipper and Client.

In the event both the LNG Terminal's tank management and discontinuous systems fail to determine the composition of LNG redelivered, the Parties shall use the analysis results of the last cargo delivered at the Delivery Point and send to the LNG Terminal storage tank being used for redelivering LNG to Client's Trailer.

Section III – Determination of temperature of LNG

At the same time that the LNG quality is determined, temperature of the LNG delivered to Client's Trailer shall be measured to the nearest zero decimal one degree Celsius (0.1°C) by using the temperature gauging devices in the LNG Terminal's storage tank used for redelivering LNG to Client's Trailer. In order to determine the temperature of liquid in the LNG Terminal's storage tank from which LNG is redelivered, one (1) reading shall be taken at each temperature gauging device in the appropriate LNG Terminal storage tank. An arithmetic average of such readings with respect to liquid shall be deemed redelivered LNG liquid temperature by LNG Terminal's tank management system.

Such arithmetic average shall be calculated to the nearest zero decimal zero one degree Celsius (0.01°C) and shall be rounded to the nearest zero decimal one degree Celsius (0.1°C).

Should the measurement of the temperature of the LNG redelivered become impossible to perform due to a failure of gauging devices, alternative gauging procedures shall be determined by mutual agreement between Terminal Operator and Client's Shipper and Client.

Section IV - Determination of energy quantity of LNG redelivered at the Redelivery Point for Truck Loading

IV.1 Calculation of density

The density of LNG stated in kilograms per Cubic Meter shall be calculated in accordance with ISO 6578:1991 by use of the formula:

$$D = \frac{\Sigma (X_i \times M_i)}{\Sigma (X_i \times V_i) - \left\{ \frac{(K1 + (K2 - K1) \times X_n) \times X_m}{0.0425} \right\}}$$

where:

D is the density to six (6) significant figures of the LNG redelivered, stated in kilograms per Cubic Meter at temperature T_L;

T_L is the temperature of the LNG in the LNG Terminal's storage tank from which the LNG is redelivered to Client's Trailer as determined in ACTL 3.4.III hereof, stated in degrees Celsius to the nearest 0.1^oC;

X_i is the mol fraction, to the nearest sixth (6th) decimal place, of component (i) from the composition obtained in accordance with ACTL 3.4.II.1 hereof. The mol fraction of methane shall be adjusted so as to make the total mol fraction equal to 1.000000;

M_i is the molecular weight of component (i), stated in kg/kmol, as set forth in Table 1 attached hereto;

V_i is the molar volume, to the nearest sixth (6th) decimal place, of component (i), stated in Cubic Meters per kilogram-mol at temperature T_L and obtained by linear interpolation of the data set forth in Table 2 attached hereto;

X_m is the mol fraction, to the nearest sixth (6th) decimal place, of methane from the composition obtained in accordance with ACTL 3.4.II.1 hereof;

X_n is the mol fraction, to the nearest sixth (6th) decimal place, of nitrogen from the composition obtained in accordance with ACTL 3.4.II.1 hereof;

K1 is the volume correction, to the nearest sixth (6th) decimal place, stated in Cubic Meters per kilogram-mol at temperature T_L and obtained by linear interpolation of the data set forth in Table 3 attached hereto; and

K2 is the volume correction, to the nearest sixth (6th) decimal place, stated in Cubic Meters per kilogram-mol at temperature T_L and obtained by linear interpolation of the data set forth in Table 4 attached hereto.

IV.2 Calculation of Gross Heating Value (GHV)

IV.2.1 The Gross Heating Value (mass basis) of LNG in kWh per kilogram shall be calculated by use of the formula:

$$H_m(t_1) = \frac{\Sigma\ [X_i \times H_{vi}(t_1)]}{\Sigma\ (X_i \times M_i) \times 3.6}$$

where:

H_m is the Gross Heating Value of LNG, stated in kWh per kilogram;

H_{vi} is the Gross Heating Value of component (i), stated in kJ / mol at a combustion reference temperature t_1 of 298.15 K, as set forth in Table 1 attached hereto;

X_i is the mol fraction, to the nearest sixth (6th) decimal place, of component (i) from the composition obtained pursuant to section II hereof. The mol fraction of methane shall be adjusted so as to make the total mol fraction equal to 1.000000; and

M_i is the molecular weight of component (i) stated in kg / kmol as set forth in Table 1 attached hereto.

IV.2.2. The Gross Heating Value (volume basis) shall be calculated by use of the formula:

$$101.325 \times \Sigma\ (X_i \times H_{vi}[t_1, V(t_2,p_2)])$$

$$H_v[t_1, V(t_2,p_2)] = \frac{\Sigma X_i \times H_{vi}[t_1, V(t_2,p_2)]}{R \times 273.15 \times z_{mix}(t_2,p_2) \times 3.6}$$

where:

H_v is the Gross Heating Value, stated in kWh per m³(n) at normal volume conditions of (t_2) 273.15 K, absolute pressure 1,013.25 mbar and combustion reference temperature t_1 of 298.15 K.

X_i is the mol fraction, to the nearest sixth (6th) decimal place, of component (i) from the composition obtained pursuant to ACTL 3.4.II.1hereof. The mol fraction of methane shall be adjusted so as to make the total mol fraction equal to 1.000000;

$H_{vi}[t_1, V(t_2,p_2)]$ is the Gross Heating Value of component (i), stated in kJ / mol, as set forth in Table 1 attached hereto;

R is the molar gas constant = 8.314510 J per mol per K; and

$z_{mix}(t_2,p_2)$ is the compression factor under normal conditions calculated in accordance with:

$$z_{mix}(t_2,p_2) = 1 - (\Sigma X_i \times \sqrt{b_i})^2$$

where:

$\sqrt{b_i}$ is the summation factor of component (i) at normal volume conditions of temperature 273.15 °K and absolute pressure 1,013.25 mbar, as set forth in Table 1 attached hereto.

IV.2.3 The Wobbe Number shall be calculated by use of the formula:

$$\text{Wobbe Number} = \frac{H_v[t_1, V(t_2,p_2)]}{\text{square root}\{[(\Sigma (X_i \times M_i)) / 28.9626)] \times [0.99941 / z(t_2,p_2)]\}}$$

where:

Wobbe Number is the Gross Heating Value, stated in kWh per m³(n) at normal conditions of temperature 273.15 K and absolute pressure 1,013.25 mbar;

0.99941 is the compression factor of dry air at normal conditions of temperature 273.15 K and absolute pressure 1,013.25 mbar;

H_v is the Gross Heating Value, stated in kWh per m³(n) at normal volume conditions of temperature 273.15 K and absolute pressure 1,013.25 mbar, calculated and obtained in accordance with ACTL 3.4.IV.2.2 hereof;

X_i is the mol fraction, to the nearest sixth (6th) decimal place, of component (i) from the composition obtained pursuant to ACTL 3.4.II hereof. The mol fraction of methane shall be adjusted so as to make the total mol fraction equal to 1.000000;

M_i is the molecular weight of component (i), stated in kg/kmol, as set forth in Table 1 attached hereto; and

$z_{mix}(t_2,p_2)$ is the compression factor under normal volume conditions of temperature 273.15 K and absolute pressure 1,013.25 mbar, calculated in accordance with:

$$z_{mix}(t_2,p_2) = 1 - (\Sigma X_i \times \sqrt{b_i})^2$$

where:

$\sqrt{b_i}$ is the summation factor of component (i) at normal conditions of temperature 273.15 K and absolute pressure 1,013.25 mbar, as set forth in Table 1 attached hereto.

IV.3 Calculation of energy quantity of LNG redelivered

The energy quantity of LNG redelivered, expressed in MWh, (combustion reference temperature 25 °C) shall be computed by using the formula below and applying the method of rounding set forth in ACTL 3.4 IV.4:

$$Q = (m \times H_m / 1{,}000)$$

where:

Q is the energy quantity redelivered, expressed in MWh, where 1 MWh = 1,000 kWh. For information purposes, Q shall also be expressed in MBTU, which shall be determined by multiplying Q in MWh by 3.4121412;

m is the mass of the LNG redelivered, stated in kilograms, obtained pursuant to ACTL 3.4.I hereof;

H_m is the Gross Heating Value of the LNG, stated in kWh per kilogram, as calculated in accordance with ACTL 3.4.IV.2.1 hereof.

IV.4 Method of rounding numbers

IV.4.1 General

If the first of the figures to be discarded is five (5) or more, the last of the figures to be retained is increased by one (1).

If the first of the figures to be discarded is four (4) or less, the last of the figures to be retained is unaltered.

For the purpose of rounding to a zero (0), the last of the figures to be retained shall have the same value as a ten (10).

The following examples are given to illustrate how a number is to be established in accordance with the above:

Number to be rounded	Number after being rounded to First Decimal Place
2.24	2.2
2.249	2.2
2.25	2.3
2.35	2.4
2.97	3.0

IV.4.2 Determination of the energy quantity of LNG redelivered, expressed in MWh (combustion reference temperature 25°C):

The energy quantity of LNG redelivered is computed by use of the formula:

$$Q = (m \times H_m / 1{,}000)$$

where:

Q is the energy quantity redelivered, expressed in MWh (combustion reference temperature 25 °C). The energy quantity shall be rounded to the nearest MWh. For information purposes, Q shall also be expressed in MBTU, which shall be determined by multiplying Q in MWh by 3.4121412 and rounded to the nearest MBTU;

m is the mass of the LNG redelivered, stated in kilograms. The mass shall be rounded to the nearest kilogram;

H_m is the Gross Heating Value of the LNG, stated in kWh per kilogram. The Gross Heating Value shall be rounded to the nearest thousandth (0.001) of a kWh/kg; and

$m \times H_m / 1{,}000$ shall be calculated and rounded to the nearest MWh.

IV.4.3 Determination of LNG Density

The density of the LNG is calculated by use of the formula:

$$D = \frac{\Sigma (Xi \times Mi)}{\Sigma (Xi \times Vi) - (K1 + (K2 - K1) \times Xn) \times Xm \left\{ \frac{}{0.0425} \right\}}$$

where:

D is the density of the LNG, stated in kilograms per Cubic Meter at temperature T_L. The density shall be rounded to the nearest tenth (0.1) of a kg/m^3;

T_L is the temperature of the LNG in the LNG Terminal storage tank from which the LNG is redelivered to Client's Trailer as determined in ACTL 3.4.III hereof, stated in degrees Celsius to the nearest tenth (0.1) °C;

X_i is the mol fraction, to the nearest sixth (6th) decimal place, of component (i) from the composition obtained in accordance with ACTL 3.4.II hereof. The mol fraction of methane shall be adjusted so as to make the total mol fraction equal to 1.000000;

M_i is the molecular weight of component (i), stated in kg/kmol, as set forth in Table 1 attached hereto;

$\Sigma (X_i \times M_i)$ the result of the calculation of "$X_i \times M_i$" of component (i) shall be rounded to the nearest sixth (6th) decimal place, and then, "$\Sigma(X_i \times M_i)$" shall be calculated to the nearest sixth (6th) decimal place;

V_i is the molar volume, to the nearest sixth (6th) decimal place, of component (i), stated in Cubic Meters per kmol at temperature T_L, and shall be obtained by linear interpolation of the data set forth in Table 2 attached hereto;

$\Sigma (X_i \times V_i)$ The result of the calculation of "$X_i \times V_i$" of component (i) shall be rounded to the nearest sixth (6th) decimal place, and then "$\Sigma(X_i \times V_i)$" shall be calculated to the nearest sixth (6th) decimal place;

X_m is the mol fraction, to the nearest sixth (6th) decimal place, of methane from the composition obtained in accordance with ACTL 3.4.II hereof;

X_n is the mol fraction, to the nearest sixth (6th) decimal place, of nitrogen from the composition obtained in accordance with ACTL 3.4.II hereof;

K1 is the volume correction, to the nearest sixth (6th) decimal place, stated in Cubic Meters per kmol at temperature T_L and obtained by linear interpolation of the data set forth in Table 3 attached hereto;

K2 is the volume correction, to the nearest sixth (6th) decimal place, stated in Cubic Meters per kmol at temperature T_L and obtained by linear interpolation of the data set forth in Table 4 attached hereto.

$$(K1 + (K2 - K1) \times X_n) \times X_m \quad \text{“}(K1 + (K2 - K1) \times X_n) \times X_m \text{“}$$
$$\{\text{----------}\} \qquad\qquad \{\text{----------}\}$$
$$0.0425 \qquad\qquad 0.0425$$

shall be calculated to the nearest sixth (6th) decimal place; and

$$\Sigma (X_i \times V_i) - (K1 + (K2 - K1) \times X_n) \times X_m$$
$$\{\text{----------}\}$$
$$0.0425$$

$$\text{“}\Sigma (X_i \times V_i)\ \Sigma (X_i \times V_i) - (K1 + (K2 - K1) \times X_n) \times X_m \text{“}$$
$$\{\text{----------}\}$$
$$0.0425$$

shall be calculated to the nearest sixth (6th) decimal place;

IV.4.4 Determination of Gross Heating Value

a) The Gross Heating Value (mass basis) of the LNG is calculated by use of the formula:

$$H_m(t_1) = \frac{\Sigma (Xi \times H_{vi}(t_1))}{\Sigma (X_i \times M_i) \times 3.6}$$

where:

H_m is the Gross Heating Value of the LNG, stated in kWh per kilogram. The Gross Heating Value shall be rounded to the nearest thousandth (0.001) of a kWh/kg;

H_{vi} is the Gross Heating Value of component (i), stated in kJ / mol, as set forth in Table 1 attached hereto;

X_i is the mol fraction, to the nearest sixth (6th) decimal place, of component (i) from the composition obtained in accordance with section II hereof. The mol fraction of methane shall be adjusted so as to make the total mol fraction equal to 1.000000;

$X_i \times H_{vi}(t_1)$ “Xi x $H_{vi}(t_1)$” shall be calculated and rounded to the nearest sixth (6th) decimal place;

$\Sigma X_i \times H_{vi}(t_1)$ “Σ Xi x $H_{vi}(t_1)$” shall be calculated and rounded to the nearest sixth (6th) decimal place;

M_i is the molecular weight of component (i), stated in kg/kmol, as set forth in Table 1 attached hereto;

$X_i \times M_i$ "X_i x M_i" of component (i) shall be calculated to the nearest sixth (6th) decimal place; and

$\Sigma(X_i \times M_i)$ "Σ (X_i x M_i)" shall be calculated to the nearest sixth (6th) decimal place by summing all "X_i x M_i" obtained as above.

b) The Gross Heating Value (volume basis) of the LNG shall be calculated by use of the formula:

$$H_v [t_1, V(t_2,p_2)] = \frac{101.325 \times (\Sigma (X_i \times H_{vi} [t_1, V(t_2,p_2)])}{R \times 273.15 \times z_{mix}(t_2,p_2)}$$

where:

H_v is the Gross Heating Value of LNG, stated in kWh per normal Cubic Meter. The Gross Heating Value shall be rounded to the nearest thousandth (0.001) of a kWh / $m^3(n)$;

X_i is the mol fraction, to the nearest sixth (6th) decimal place, of component (i) from the composition obtained pursuant to ACTL 3.4.II hereof. The mol fraction of methane shall be adjusted so as to make the total mol fraction equal to 1.000000;

H_{vi} is the Gross Heating Value of component (i), stated in kJ / mol, as set forth in Table 1 attached hereto;

$X_i \times H_{vi} [t_1, V(t_2,p_2)]$ "Xi x H_{vi} (t_1)" shall be calculated and rounded to the nearest sixth (6th) decimal place;

$\Sigma X_i \times H_{vi} [t_1, V(t_2,p_2)]$ "Σ Xi x H_{vi} (t_1)" shall be calculated and rounded to the nearest sixth (6th) decimal place; and

R is the molar gas constant = 8.314510 J per mol per K

$z_{mix}(t_2,p_2)$ is the compression factor, rounded to the nearest sixth (6th) decimal place, under normal conditions calculated in accordance with:

$$z_{mix}(t_2,p_2) = 1 - (\Sigma X_i \times \sqrt{b_i})^2$$

where:

$\sqrt{b_i}$ is the summation factor of component (i) as set forth in Table 1 attached hereto;

$X_i \times \sqrt{b_I}$ "X_i x $\sqrt{b_i}$" shall be calculated for component (i) to the nearest sixth (6th) decimal place;

$(\Sigma X_i \times \sqrt{b_i})^2$ shall be calculated to the nearest sixth (6th) decimal place.

c) The determination of the **Wobbe Number** shall be calculated by use of the formula:

$$\text{Wobbe Number} = \frac{H_v\,[t_1, V(t_2,p_2)]}{\sqrt{\{[(\Sigma\,(X_i \times M_i))\,/\,28.9626)] \times [0.99941\,/\,z_{mix}\,(t_2,p_2)]\}}}$$

where:

Wobbe Number is the Gross Heating Value of LNG, stated in kWh per normal Cubic Meter. The Gross Heating Value shall be rounded to the nearest thousandth (0.001) of a kWh / m³(n);

H_v is the Gross Heating Value of LNG, calculated and obtained in accordance with ACTL 3.4.IV.2.2 hereof shall be rounded to the nearest thousandth (0.001) of a kWh / m³(n);

X_i is the mol fraction, to the nearest sixth (6th) decimal place, of component (i) from the composition obtained pursuant to ACTL 3.4.II hereof. The mol fraction of methane shall be adjusted so as to make the total mol fraction equal to 1.000000;

M_i is the molecular weight of component (i), stated in kg/kmol, as set forth in Table 1 attached hereto; and

$z_{mix}\,(t_2,p_2)$ is the compression factor, rounded to the nearest sixth (6th) decimal place, under normal conditions calculated in accordance with ISO 6976:1995:

$$z_{mix}\,(t_2,p_2) = 1 - (\Sigma\, X_i \times \sqrt{b_i})^2$$

where:

$\sqrt{b_i}$ is the summation factor of component (i) as set forth in Table 1 attached hereto;

$X_i \times \sqrt{b_i}$ "$X_i \times \sqrt{b_i}$" shall be calculated for component (i) to the nearest sixth (6th) decimal place; and

$(\Sigma\, X_i \times \sqrt{b_i})^2$ shall be calculated to the nearest sixth (6th) decimal place.

Table 1 - Physical constants

	Molecular weight	Gross Heating Value (kJ/mol)	Summation Factor
Component	M_i (kg/mol)	H_{vi}	$\sqrt{b}$
Methane (CH_4)	16.043	890.63	0.0490
Ethane (C_2H_6)	30.070	1,560.69	0.1,000
Propane (C_3H_8)	44.097	2,219.17	0.1453
Iso-butane (i-C_4H_{10})	58.123	2,868.20	0.2049
Normal Butane (n-C_4H_{10})	58.123	2,877.40	0.2069
Iso-pentane (i-C_5H_{12})	72.150	3,528.83	0.2510
Normal Pentane (n-C_5H_{12})	72.150	3,535.77	0.2864
n-HexanePlus (C_6H_{14+})	86.177	4,194.95	0.3286
Nitrogen (N_2)	28.0135	n/a	0.0224
Oxygen (O_2)	31.9988	n/a	0.0316
Carbon Dioxide (CO_2)	44.010	n/a	0.0819

Reference: The above table of physical constants, developed from ISO 6976:1995 Table 1, Table 2 and Table 3, shall be used for all density and heating value calculations associated with the LNG Agreement for Truck Loading. This table of Physical Constants shall be revised to conform to any subsequent officially published revision of ISO 6976:1995. The values for the Gross Heating Value in kJ/mol and the Summation Factors as shown above are based on combustion reference temperature 25 °C and normal conditions of 0 °C and 1,013.25 mbar for volumetric reference.

Note: All components of C_6 and above shall be deemed to be C_6 for the purposes of calculations using Table 1 above.

Table 2 - Molar volumes of individual components

Molar Volumes (m^3/kmol) at Various Temperatures x 103				
Component	-165°C	-160°C	-155°C	-150°C
CH_4	37.500	38.149	38.839	39.580
C_2H_6	47.524	47.942	48.369	48.806
C_3H_8	62.046	62.497	62.953	63.417
i-C_4H_{10}	77.851	78.352	78.859	79.374
n-C_4H_{10}	76.398	76.875	77.359	77.847
i-C_5H_{12}	91.179	91.721	92.267	92.817
n-C_5H_{12}	91.058	91.583	92.111	92.642
C_6H_{14+}	104.34	104.89	105.45	106.02
N_2	44.043	47.019	51.022	55.897

Reference: The above table of molar volumes, as referenced in ISO 6578:1991, Table B.1, shall be used for all LNG density and heating value calculations associated with the LNG Agreement for Truck Loading. This table of Molar Volumes shall be revised to conform to any subsequent officially published revision of ISO 6578:1991.

Note:

1. For intermediate temperatures a linear interpolation shall be applied.

2. The above values are expressed as the values derived after multiplying by 10^3 to avoid an excessive number of decimal places in the table. When applying the values, a compensating multiplier of 10^{-3} should be entered to reduce the above values to the correct magnitude.

Table 3 - Correction K1 for volume reduction of mixture

K1 (m^3/kmol) at Various Temperatures x 10^3				
Molecular Weight of Mixture Σ(Xi x Mi)	-165°C	-160°C	-155°C	-150°C
16.00	-0.01	-0.01	-0.01	-0.01
17.00	0.18	0.21	0.24	0.28
18.00	0.37	0.41	0.47	0.56
19.00	0.51	0.58	0.67	0.76
20.00	0.67	0.76	0.86	0.98
21.00	0.79	0.89	1.00	1.13
22.00	0.90	1.01	1.17	1.32

Reference: The above table of correction K1 for volume reduction, as referenced in ISO 6578:1991, Table C.1, shall be used for all LNG density calculations associated with the LNG Agreement for Truck Loading. This table of correction K1 for volume reduction shall be revised to conform to any subsequent officially published revision of ISO 6578:1991.

Note:

1. Molecular mass of mixture equals (Σ(Xi x Mi).

2. For intermediate values of temperature and molecular mass a linear interpolation shall be applied.

3. The above values are expressed as the values derived after multiplying by 10^3 to avoid an excessive number of decimal places in the table. When applying the values, a compensating multiplier of 10^{-3} should be entered to reduce the above values to the correct magnitude.

Table 4 - Correction K2 for volume reduction of mixture

K2 (m^3/kmol) at Various Temperatures x 10^3				
Molecular Weight of Mixture Σ(Xi x Mi)	-165°C	-160°C	-155°C	-150°C
16.00	-0.01	-0.02	-0.03	-0.04
17.00	0.29	0.46	0.68	0.91
18.00	0.53	0.67	0.84	1.05
19.00	0.71	0.88	1.13	1.39
20.00	0.86	1.06	1.33	1.62
21.00	1.01	1.16	1.48	1.85
22.00	1.16	1.27	1.65	2.09

Reference: The above table of correction K2 for volume reduction, as referenced in ISO 6578:1991, Table C.2, shall be used for all LNG density calculations associated with the LNG Agreement for Truck Loading. This table of correction K2 for volume reduction shall be revised to conform to any subsequent officially published revision of ISO 6578:1991.

Note:

1. Molecular mass of mixture equals Σ(Xi x Mi).

2. For intermediate values of temperature and molecular mass a linear interpolation shall be applied.

3. The above values are expressed as the values derived after multiplying by 10^3 to avoid an excessive number of decimal places in the table. When applying the values, a compensating multiplier of 10^{-3} should be entered to reduce the above values to the correct magnitude.

Table 5 - Approximate physical conversion factors
(Conversions for information only)

To convert from	To	Multiply by	Reference
kWh	MJ	3.6	[1]
MWh	GJ	3.6	[1]
GJ	MBTU	0.947817	[1]
MWh	MBTU	3.4121412	[1]
GJ	MJ	1,000	
MWh	kWh	1,000	
MBTU	GJ	1.055056	[1]
MBTU	MJ	1,055.056	[1]
MBTU	MWh	0.293071	[1]
MBTU	kWh	293.071	[1]
GHV on a molar or a mass basis, with reference temperature of 25 °C for combustion	GHV on a molar or a mass basis, with reference temperature of 15 °C for combustion	1.0010	[2]
GHV (volume basis) with reference temperatures of 25 °C for combustion and 0 °C for volume	GHV (volume basis) with reference temperatures of 15 °C for combustion and 15 °C for volume	0.9486	[2]
Wobbe Number with reference temperatures of 25 °C for combustion and 0 °C for volume	Wobbe Number with reference temperatures of 15 °C for combustion and 15 °C for volume	0.9487	[2]
pound (avoirdupois)	kg	0.45359237	[1]
pound-force per square inch (p.s.i.)	Pascal	6,894.757	[1]

Reference sources:

[1]: LNG Measurement, A user's manual for custody transfer, first edition 1985, Table 1.1.7 (page 1.1-4) - Douglas Mann, General Editor - Sponsored by Groupe International des Importateurs de GNL (G.I.I.G.N.L.), Paris, and Center for Chemical Engineering, National Bureau of Standards, Boulder, Colorado 80303

[2]: ISO 6976:1995, Tables J.1 and J.3 (informative)

3.5 MAINTENANCE OF THE FACILITIES AT THE LNG TERMINAL

3.5.1 Terminal Operator's obligation to operate, maintain and repair the LNG Terminal

Terminal Operator shall, operate, maintain and repair the LNG Terminal and keep the LNG Terminal in good working order and condition in order to fulfill its obligations and operate the LNG Terminal in accordance with the standards of a Reasonable and Prudent Operator.

Subject to the provisions of this chapter, Terminal Operator has the right to shut-off, reduce or curtail all or part of the LNG Terminal for maintenance, repair or replacement works of the LNG Terminal which works may have an impact on the availability of the LNG Services. Such maintenance, repair or replacement works shall be limited in duration and instances insofar as reasonably possible in accordance with the provisions of this section.

Any reduction in LNG Service for amongst others maintenance, repair or replacement works shall be allocated by Terminal Operator between Clients and, as the case maybe, the other users, on a fair and equitable basis, and to the extent possible pro rata their respective LNG Service for the parts of the service being unavailable.

3.5.2 Planned Maintenance

3.5.2.1 As soon as possible and in any event not later than one (1) Month prior to the beginning of the planned maintenance (the "*Planned Maintenance*") event, Terminal Operator shall inform Clients of the Planned Maintenance and shall use their reasonable endeavours to synchronise the anticipated maintenance, repair and replacement works to be performed at the LNG Terminal (i.e. and including the LNG Truck Loading Station) and Segment 1, so as to minimise any disruptions in the ability of Clients to use their LNG Services. For the avoidance of doubt, Terminal Operator shall notify Clients of any Planned Maintenance impacting the LNG Truck Loading Services simultaneously with the notification towards other users.

3.5.2.2 Terminal Operator and Client shall either reschedule subject to availability the Client's Starting Hour in mutual consent or the Client's Starting Hour shall be considered as been cancelled before 11AM of the Gas Day preceding the Gas Day of the Starting Hour.

3.5.3 Unplanned Maintenance

3.5.3.1 In case of an incident or Emergency, Terminal Operator shall have the right to reduce in all or in part the LNG Services provided Terminal Operator shall promptly notify Client thereof and shall notify Client of the expected duration of the reduction of the LNG Services and any such reduction shall be fairly and equitably allocated to Clients to the extent possible on a pro rata basis (the "*Unplanned Maintenance*").

3.5.3.2 Such Unplanned Maintenance shall be limited to the reduction of the LNG Services which is strictly necessary for Terminal Operator to remedy the cause thereof. Terminal Operator shall promptly inform Clients as soon as possible on the resumption of the performance of the LNG Services

3.5.3.3 Terminal Operator and Client shall either reschedule subject to availability the Client's Starting Hour in mutual consent or the Client's Starting Hour shall be considered as been cancelled before 11AM of the Gas Day preceding the Gas Day of the Starting Hour.

3.6 MANAGEMENT OF CONGESTION AT THE LNG TERMINAL

Chapter 2.3 of the LNG Access Code for Truck Loading, and more specifically the provisions dealing with the Secondary Market, contain the applicable procedures in respect of the management of contractual congestion at the LNG Terminal.

In addition to ACTL 2.3, Terminal Operator shall take measures to mitigate congestion in case a Scheduling Congestion Period is anticipated or observed for Truck Loading Services. Among other measures, Terminal Operator may:

- Review the operational planning in order to create additional Starting Hours, depending upon operational and organizational constraints. This might change the existing Starting Hours by maximum 2 hours, leading to the following steps:

    1. If Clients have already scheduled Starting Hours during the Scheduling Congestion Period, Terminal Operator will contact the Clients in the order of when they scheduled these Starting Hours. At that moment, Clients will have the opportunity, for each Day of the Scheduling Congestion Period, to reschedule any of these Starting Hours to unscheduled Starting Hours within the same Day;

    2. Terminal Operator will communicate a new Scheduling Time for the unscheduled Starting Hours in the Scheduling Congestion Period. These Starting Hours will be available for all Clients.

- Define and communicate the applicable Scheduling Congestion Freeze Period for the Starting Hours during the Scheduling Congestion Period. During the Scheduling Congestion Freeze Period, Clients can only modify their Starting Hours within the same day until the Freeze Period starts and can no longer cancel their Starting Hours free of charge. When cancelling a Starting Hour in the Scheduling Congestion Period, the Client will lose its Starting Hour. However, if the Starting Hour which the Client does not intend to use is scheduled by another Client, Terminal Operator shall credit 50% of the slot price of said Starting Hour to the Client having so notified the Terminal Operator.

The Terminal Operator, in addition to the provisions already included in ACTL 2.3 and this ACTL 3.6, will establish a continuous monitoring regarding the capacity utilisation of the LNG Truck Loading Service (including for example the level of LNG Truck Loading Services sold, effective use of LNG Truck Loading Services, number of requests for LNG Truck Loading Services, etc...). Based upon said continuous monitoring, the Terminal Operator will, whenever appropriate and at the latest upon request of the CREG, revise the applicable procedures in respect of the management of congestion at the LNG Terminal and submit them for approval to the CREG.

3.7 OPERATING RULES FOR INCIDENT MANAGEMENT AND EMERGENCIES

3.7.1 Introduction

Without prejudice to the Operating Rules related to unplanned maintenance (i.e. chapter 3.7 of the LNG Access Code for Truck Loading), this chapter defines the incident & emergency procedure of the Terminal Operator applicable for the incidents and emergencies that may occur.

In line with the provisions of the Code of Conduct, the Terminal Operator has (i) determined the phases that might be run through in case of an incident or emergency; (ii) defined the procedure to be followed by the stakeholders concerned in case of an incident or emergency; and (iii) described the possible measures to take by the Terminal Operator as well as by the Terminal Users.

3.7.2 Measures in case of incident or emergency

Various incidents and emergencies may occur at the LNG Terminal that can have as a consequence that the safety and/or the integrity of the LNG Terminal cannot be maintained, is endangered, or which could escalate to such situation according to the assessment of the Terminal Operator.

Without prejudice to the measures to be taken within the framework of the Operating Rules related to unplanned maintenance, the Terminal Operator is entitled to take all necessary measures to guarantee and/or restore the safety and system integrity of the LNG Terminal. Terminal Operator will use reasonable endeavours to minimize the duration and impact of incidents and emergencies occurring.

3.7.3 First-response phase

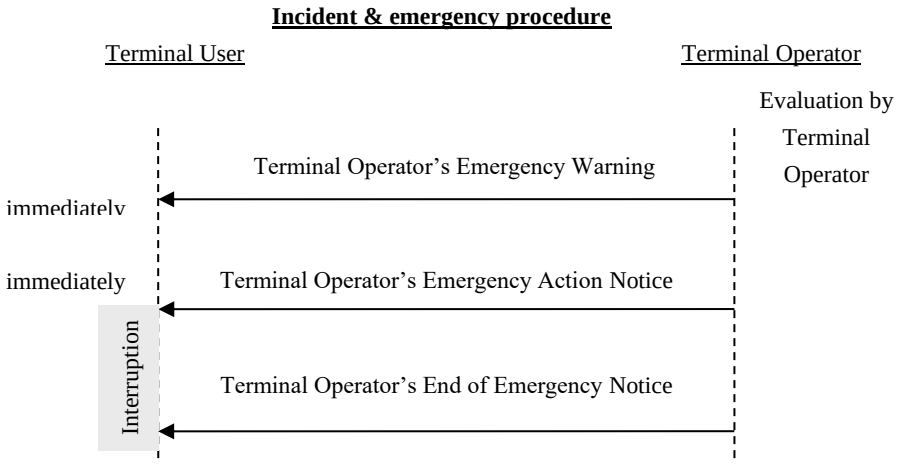
Based upon the available information, the Terminal Operator will assess whether the safety and/or the system integrity of the LNG Terminal can be maintained, is endangered or whether the incident or emergency could escalate to such situation.

Based upon the impact assessment, the Terminal Operator, as the case may be, might decide to qualify the incident or the emergency as an Emergency and to subsequently activate the incident & emergency procedure, without prejudice to any measure(s) taken within the framework of the Operating Rules related to unplanned maintenance.

3.7.4 Incident & emergency procedure

The incident & emergency procedure is applicable for Emergencies. These measures both have a temporary character and have priority. They can, if necessary, without prejudice to the incident & emergency procedure, at any time without prior notice by the Terminal Operator be changed and adjusted as long as the Emergency persists.

In the following schedule, the incident & emergency procedure between Terminal Operator and Terminal User on the LNG Terminal is reflected. This incident & emergency procedure consists of 3 steps:



In any case, the CREG and the relevant competent authorities in case of an Emergency will be informed of its planned duration, its cause (if known), and the measures taken by the Terminal Operator and consequences for the concerned Terminal User(s).

a) Phase 1 – Emergency warning

In case based on the available information, the Terminal Operator evaluates that the incident or emergency qualifies as Emergency, i.e. whether it impacts the safety and/or the system integrity of the LNG Terminal or could escalate to such situation and thus could have consequences for the concerned Terminal Users.

The Terminal Operator sends as soon as reasonably possible a "Terminal Operator's Emergency Warning" announcing the possible impact on the LNG Services. If immediate action is required, the Terminal Operator will not send a warning but immediately will send an "Emergency Action Notice" as provided for in phase 2 below.

Both the related Terminal Users, the CREG, and the concerned competent authorities are notified per telephone of such Emergency and receive a notice "Terminal Operator's Emergency Warning" by fax confirming such warning.

b) Phase 2 – Emergency Action Notice

Based upon the available information, the Terminal Operator determines the measures to be taken to guarantee and/or restore the safety and system integrity of the LNG Terminal.

The Terminal Operator confirms to the related Terminal Users and the CREG and the relevant competent authorities the measure(s) to be taken through a "Terminal Operator's Emergency Notice" by fax, specifying a start date/time and the action(s) to be taken by the related Terminal Users. The Emergency measure(s) remain(s) valid until the Terminal Operator sends a "Terminal Operator's End of Emergency Notice" (see phase 3 for more details).

As from the start of LNG Emergency, up to the sending of a "Terminal Operator's End of Emergency Notice", the Terminal Operator will specify the impact on the LNG Service(s).

c) Phase 3 – End of Emergency Notice

When based on the evaluation of Terminal Operator and the competent authority (as the case may be), the action(s) are no longer required, the Terminal Operator sends a "Terminal Operator's End of Emergency Notice" by fax to the related Terminal Users and the CREG and the relevant competent authorities, specifying the Emergency end date, and lifting constraint(s) at the Redelivery Point for Truck Loading.

3.8 LOCATION OF LNG TRUCK LOADING STATION

4 FORMS

4.1 SERVICE FORMS

4.1.1 Service Request Form For Contracting (SRFC)

SERVICES REQUEST FORM for CONTRACTING (SRFC)

1. Shipper Information

Client : ……

Contact Person: ……

Phone: …… Fax: ……

E-mail: ……

2. Request for LNG Services : "Binding Request"

	Requested number of LNG Truck Loading Service Right		Start date	Duration
	Minimum	Maximum		
LNG Truck Loading Services (*)				

(*) In accordance with truck approval provisions of the ACTL, a Truck Approval Service will be required in case the LNG Truck Loading Services is performed by a truck that has not been previously approved

	Requested	
LNG Truck Cool Down Services (**)		*[Yes/No]*

(**) Upon call-off of the client

Shipper hereby:

Signing Date: ……..

Name : ……..

Position: ……..

Signature: ……..

By signing this SRFC, Shipper acknowledges and accepts all the provisions of the corresponding Service Confirmation

To be sent by registered mail to
Fluxys LNG
Fax: +32 (0) 2 282 78 69
E-mail: info.lng@fluxys.com

4.1.2 Service Confirmation Form For Contracting (SCFC)

FLUXYS

SERVICE CONFIRMATION FORM for CONTRACTING (SCFC)

Client's Name:	
Commercial Reference:	

LNG Services	**Number of LNG Truck Loading Service Right**	**Start date**	**End date**
LNG Truck Loading Services (*)			

(*) In accordance with truck approval provisions of the ACTL, a Truck Approval Service will be required in case the LNG Truck Loading Services is performed by a truck that has not been previously approved

	Requested	
LNG Truck Cool Down Services (**)		*[Yes/No]*

(**) Upon call-off of the client

Client:

[Nbr of starting hours]

Date: .....

Name: .....

Position: .....

LNG Truck Cool Dow .....

(**) Upon demand of .....

Date: .....

Name: .....

Position: .....

.....

Signature: .....

Fluxys LNG:

Date: .....

Name: .....

Position: .....

.....

Signature: .....

Date: .....

Name: .....

Position: .....

.....

Signature: .....

4.1.3 Service Request Form For Assignment (SRFA)

FLUXYS

SERVICES REQUEST FORM for ASSIGNMENT (SRFA)

To	Terminal Operator	**Copy to**	Assignee or Assingor
Fax		**Fax**	
Reference			
From	Assignor or Assignee		
Our reference		**N° of pages**	
Tel			
Fax			
Date / time	dd/mm/yyyy hh:mm		

Subject Secondary market: Assignment Request

Dear,

Hereby (Assignor) requests Fluxys LNG for a LNG Service Assigment from (Assignor) to (Assignee)

Service	LNG Truck Loading Service	
Quantity assigned	XXX	STARTING HOURS
Assignment Start date	From dd/mm/yyyy	
Assignment End date	To dd/mm/yyyy	
Assignee	Company	

Rights and obligations related to this service will be transferred from Assignor to Assignee in accordance with the AC

Best regards,

(Signature Assignor)	name	function

(Signature Assignee)	name	function

yellow fields shall be filled in

4.1.4 Service Confirmation Form For Assignment (SCFA)

FLUXYS

SERVICES CONFIRMATION FORM for ASSIGNMENT (SCFA)

To	Assignor	**Copy to**	Assignee
Fax		**Fax**	
Your reference			
From	Terminal Operator		
Our reference		**N° of pages**	
Tel			
Fax			
Date / time	dd/mm/yyyy hh:mm		

Subject Secondary market: Assignment Confirmation

Dear,

Hereby Fluxys confirms the Service Assigment from (Assignor) to (Assignee) with the following characteristics:

Service	LNG Truck Loading Service	
Quantity assigned	XXX	STARTING HOURS
Assignment Start date	From dd/mm/yyyy	
Assignment End date	To dd/mm/yyyy	
Assignee	Company	

Rights and obligations related to this service will be transferred from Assignor to Assignee in accordance with the AC

Best regards,

Terminal Operator	name	function

yellow fields shall be filled in

4.2 BANK GUARANTEE FORM

Document to be sent by the bank of the Client to
Fluxys LNG, Rue Guimard 4 – 1040 Bruxelles

BANK GUARANTEE ON FIRST REQUEST

Re: Guarantee number ……

An LNG Agreement for Truck Loading has been concluded on ……...[*Date of the LNG Agreement + reference*]

with "*Client*" …..…..[*name, address, registration number, VAT number*]

for the subscription and use of LNG Services offered by FLUXYS LNG SA.

We refer to the request of "*Client*" *…[name*]..……

to provide a Bank Guarantee upon first demand in your favour. Pursuant to the aforementioned request, we hereby irrevocably undertake to pay you on your first demand, irrespective of the validity and the legal effects of the above-mentioned contract and waiving all rights of objection and defence arising from said contract, any amount up to ……...[*amount of Bank Guarantee*] €.

The amount of the Bank Guarantee is irrevocably payable to you on your first request, by registered letter, up to the amount mentioned in it, without any justification to us, the issuing bank, and without any possibility for us to put forward either a refusal from the end consumer.

In case of bankruptcy, settlement, winding-up or any other equivalent proceedings instituted against the end consumer, the amount of the guarantee will be rightfully due to you.

Our guarantee expires automatically if your written request for payment and your written confirmation are not in our possession on or before ….....[*date of termination*].

The total amount of this guarantee will be reduced by any payment effected by us hereunder.

For the execution of this agreement and any consequences, our bank elects domicile at ……...[*address + contact services*].

Yours faithfully.

4.3 TERMS & CONDITIONS FOR ACCESS/USE OF ELECTRONIC DATA PLATFORM

4.3.1 Introduction

Within the framework of the execution of LNG Services, the Terminal Operator offers Clients access to and use of the Electronic Data Platform under the condition that Client applies the terms and conditions for access to and use of the Electronic Data Platform as set forth in this section 4.3.

Such access will be granted to Client representatives, further referred to as System Users, on a non-exclusive and non-transferable basis and as from the moment those System Users become registered as set forth in section 4.3.3. The use of the Electronic Data Platform by System Users is further subject to identification and authentication procedures detailed in section 4.3.4.

Terminal Operator is for commercial, operational and regulatory purposes offering different access rights to the Electronic Data Platform. The following distinction is made depending on the type of data made available:

- Public data is data that is made available to anyone without access restriction placed on such kind of data,
- Private data is data made available to a specific Client, with restricted use depending on the access rights granted by the System User of the Electronic Data Platform, as detailed in section 4.3.3.

4.3.2 Definitions

Unless the context requires otherwise, the definitions set out in chapter 5 of this LNG Access Code for Truck Loading apply to this heading. Capitalized words and expressions used in this heading which are not defined in chapter 5 of this LNG Access Code for Truck Loading shall have the following meaning:

Administration Setup	Set of tasks relating to the creation, modification or deletion of System Users of the Electronic Data Platform linked to a Client and the allocation of access rights to these System Users in accordance with section 4.3.3.1.
Electronic Booking System	Part of the Electronic Data Platform provided by the Terminal Operator which allows Client to subscribe LNG Services.
Electronic Data Platform	The internet application offered by Terminal Operator to the Client under this section 4.3 on which Terminal Operator shall give access to both public and private data and its associated Electronic Booking System.

Intellectual Property Rights	Patents, trademarks, service marks, logos, get-up, trade names, internet domain names, rights in designs, copyright (including rights in computer software) and moral rights, database rights, semi-conductor topography rights, utility models, rights in know-how and other intellectual property rights, in each case whether registered or unregistered and including applications for registration, and all rights or forms of protection having equivalent or similar effect anywhere in the world.
Single Point Of Contact or SPOC	Representative appointed by the Client who shall be the contact person between the Client and the Terminal Operator and who is entitled to do the Administration Setup, in accordance with section 4.3.3.1.
System User	A physical person who represents a Client and who has access to private data, in accordance with section 4.3.3.
Working Hours	From Monday to Friday between 9 am and 6 pm Belgian Local Time, except during bank holidays in Belgium or the Terminal Operator's general holiday schedule.

4.3.3 Access rights

For the avoidance of doubt, Terminal Operator grants System User, that have been registered either as SPOC either by the SPOC, a temporary, personal, non-transferable and non-exclusive right for the use of the Electronic Data Platform for the consultation of data and as the case may be for submitting LNG service requests through the Electronic Booking System based on the combination of one or more of the following access rights.

4.3.3.1 Administration rights

Client shall appoint one or more SPOCs, who shall become System Users granted with administration rights in the Electronic Data Platform. For the registration of a SPOC for a specific Client, Terminal Operator requires at least the name, e-mail address and mobile phone number of such person.

Once the SPOC is registered, Terminal Operator shall send the SPOC its username by e-mail and its password by e-mail[1]. As from this moment, SPOC is entitled to use the Electronic Data Platform administration tool and execute the Administration Setup of all System Users relating to such Client, by:

- Registering System User(s) and their information;
- Password management for System Users, including creation, reset or unlock operations;
- Modifying or deleting the information relating to System Users; and

[1] The password is generated by the system and must be changed at first login attempt;

- Granting or modify granted access rights to System Users.

In order to register a new System User, SPOC of the Client shall register at least its name, e-mail address and mobile phone number in the administration tool.

Once the System User is registered, Terminal Operator shall send the System User its username by e-mail and its password by SMS[1]. As from this moment, System User is entitled to use the Electronic Data Platform and consult private data relating to the Client, according to the access rights granted to him at that time by the SPOC.

4.3.3.2 Transaction rights

A System User with transaction rights is entitled to consult and register transaction information through the Electronic Booking System relating to but not limited to the request of LNG Service for the account of Client to Terminal Operator.

The Client guarantees that the System User is authorized to legally bind as the case may be the Client, including but not limited to in accordance with any statutory provision.

4.3.4 Access to the Electronic Data Platform

4.3.4.1 Infrastructure

Client must at its own expense and risk:

a) Apply for and obtain a username and password; and,
b) Purchase all necessary hardware, software and licenses, if any, for the use of the username and password for the Electronic Booking System as explained in section 4.3.3.

All costs made by the Client related to the application and administration of the username, password, including but not limited to the Administration Setup, will be paid by the Client.

Terminal Operator will handle the Client's access request for SPOC and will do its reasonable efforts to grant, as soon as possible, Client access to its data via the Electronic Data Platform. In principle, access will be granted within ten (10) Business Days as from the access request but this timing is not binding towards Terminal Operator. If access is granted, Terminal Operator will provide the Client a manual[2] on the use of the Electronic Data Platform, which may be amended from time to time.

The Client itself must have at its disposal, at its own expense and its own risk, minimum configuration on request of Terminal Operator to access the Electronic Data Platform. These minimum requirements are published on Fluxys website and may be modified from time to time, given possible technological evolutions.

4.3.4.2 Availability of the Electronic Data Platform

The Electronic Data Platform is accessible through the internet. In this regard, Client expressly acknowledges that internet is an open international network whose characteristics and

[2] Such manual will be available on-line with-in the platform and can be sent to Client upon request.

particularities are well known to it. Client agrees that Terminal Operator will not be held liable for any direct or indirect damage Client might incur due to the use of the internet. Terminal Operator reserves the right to modify at any time the electronic means of communication used for the services offered through the Electronic Data Platform.

The Electronic Data Platform is intended to be accessible 24 hours per day and 7 days per week, except as otherwise indicated. Assistance in case of technical problems or unavailability of the Electronic Data Platform for whatsoever reason or the helpdesk will only be assured by Terminal Operator during Working Hours. Terminal Operator reserves the right at any moment to suspend or otherwise limit the availability of part or all of the Electronic Data Platform from time to time to make all modifications likely to improve or expand its operation and to ensure its maintenance. Terminal Operator will notify Client in due time of any change in the Electronic Data Platform or any such unavailability and will use its reasonable endeavours to keep such unavailability to a minimum.

4.3.4.3 Availability of the Electronic Booking System

The Electronic Booking System is intended to be accessible 24 hours per day and 7 days per week. Assistance in case of technical problems or unavailability of the Electronic Booking System for whatsoever reason or the helpdesk will only be assured by Terminal Operator during Working Hours. Terminal Operator reserves the right at any moment to suspend or otherwise limit the availability of part or all of the Electronic Booking System from time to time to make all modifications likely to improve or expand its operation and to ensure its maintenance. Terminal Operator will notify Client in due time of any change in the Electronic Booking System or any such unavailability and will use its reasonable endeavors to keep such unavailability to a minimum.

The unavailability of the Electronic Booking System, whether or not due to force majeure, shall not affect Client's rights under the LNG Agreement for Truck Loading as Client can at any time request for LNG Services via the other channels foreseen by the LNG Access Code for Truck Loading.

4.3.4.4 Access refusal

Terminal Operator may block System User's access to the Electronic Data Platform at any time with immediate effect, without giving right to compensation and without affecting the Parties' rights and obligations under the LNG Agreement for Truck Loading:

a) Upon Client's written request to block or delete an account of a System User for whatever reason,
b) For technical reasons affecting Terminal Operator's IT system; and,
c) In case of a default or breach by System User, not capable of remedy, it being understood that the use of the Electronic Data Platform by System User which adversely affects the smooth operation or the image or the reputation of Terminal Operator (a.o. undue or fraudulent use of the data and/or Electronic Data Platform), will be considered as a breach not capable of remedy with respect to the use of the Electronic Data Platform.

4.3.5 Use of the Electronic Booking System

System Users with transaction rights can submit a binding LNG Service transaction request.

In case the requested LNG Service is available, the LNG Service transaction will be booked automatically within the Electronic Booking System and a confirmation e-mail shall be sent to the System User who has submitted the binding LNG Service transaction request. In case of unavailability of the requested LNG Service or in case of needed additional processing of the requested LNG Service, the LNG Service transaction will be accepted within the Electronic Booking System and forwarded to Terminal Operator commercial services for further analysis.

The Terminal Operator has the right to ask the Client to provide additional financial security in order to comply with the creditworthiness assessment described in the LNG Agreement for Truck Loading. This creditworthiness check can be done after the confirmation in the Electronic Booking System.

The Electronic Booking System allows Client to view and modify its LNG service transaction request before confirming this request. Client is solely responsible for checking the accuracy of any LNG service transaction request and therefore:

a) Client shall not be allowed to invoke any error after confirmation; and,
b) Any such error shall not invalidate the request.

Client's request by using the Electronic Booking System and any other actions performed under this section 4.3, if any, will be logged and stored by Terminal Operator for, amongst others:

a) Monitoring and analysis purposes; and,
b) Evidence purposes.

Terminal Operator will store such information as long as it deems necessary and process such information in accordance with section 4.3.9.

4.3.6 Liability

It is expressly agreed between the Parties that liability provisions of the LNG Agreement for Truck Loading shall not apply to any liabilities of the Parties arising out of or in connection with this section 4.3, and that such liabilities, whether in contract, extra-contractually or otherwise, and their respective extent are set out exhaustively and exclusively in this section 4.3 and shall apply for any rights, claims or indemnifications to which the other Party and its Affiliates may be entitled to under this section 4.3 regardless of the circumstances under which they occur.

4.3.6.1 Terminal Operator's liability

Terminal Operator makes no warranty that access to or functioning of the Electronic Data Platform will be uninterrupted, timely, secure, effective and reliable or error free, since the provision of the services under this section 4.3 depends amongst other on the proper functioning of the telecommunications network/internet.

The use of the Electronic Data Platform and the data resulting from it is at the Client's own discretion and risk. Client alone is responsible for any damage to its or others' computer system(s), telephone(s), fax or other devices or loss of data from the use of the Electronic Data Platform.

Terminal Operator shall make no warranty and will not be liable as to the updating, the correctness, the accuracy, or completeness of the data provided on and the good working of the Electronic Data

Platform. The System User acknowledges that the data may not always be checked and /or validated by Terminal Operator. For the avoidance of doubt, the lack of availability of the Electronic Data Platform will under no circumstances affect Parties' rights and obligations under the LNG Agreement for Truck Loading or with regard to the LNG Services.

Terminal Operator will under no circumstances and to the extent permitted by applicable law, be liable to Client for any direct or indirect, material or immaterial damage, of whatever nature, suffered by Client, including but not limited to loss of profits, loss of business expectations or opportunities, loss of contracts, damage to third parties or any other consequence that might result from:

- The use and/or the lack of availability of the Electronic Data Platform or the Electronic Booking System in general; or,
- The use and or unavailability of the username and password, except in case of Terminal Operator's deliberate fault; or,
- The inaccuracy of data, or lack of data provided under the section 4.3.

4.3.6.2 Client's liability

The Client is the sole responsible with regard to use and administration of:

- The data in the administration tool; and
- The Electronic Data Platform in general.

The Client is the sole responsible for the administration, including but not limited to the Electronic Data Platform, revocation, and/or suspension, distribution, circulation, copying of its usernames and passwords, and given access to the content of e-mail and for the use of its administration tool by all (un)authorised person and /or third parties. Client must take all appropriate measures to secure its access to the administration tool.

In general, Client is responsible for maintaining the confidentiality of its usernames, passwords and the content of e-mail, and data for restricting access to its computers. Client shall be responsible for all activities that occur under its accounts or passwords.

Client shall hold harmless and indemnify Terminal Operator for any claims by any third party, including the data subject, relating to the use of Client's usernames, passwords and the content of e-mail by (un)authorised persons, the transfer of personal data to Terminal Operator and in general relating to this Electronic Data Platform.

4.3.7 Force Majeure

In addition to the Force Majeure provisions of the LNG Agreement for Truck Loading, events which shall be considered as Force Majeure under this section 4.3 include but are not limited to hacking or malicious interference of third parties prejudicing the electronic facilities, and/or the Electronic Data Platform of the Terminal Operator and software, hardware, telecommunication or other network failures, interruption, disruptions, malfunctions or computer viruses.

In case of Force Majeure leading to the unavailability of the Electronic Data Platform and/or the Electronic Booking System, Client can at any time request for LNG Services via the other channels foreseen by the LNG Access Code for Truck Loading.

4.3.8 Intellectual property rights

The Intellectual Property Rights associated with the Electronic Data Platform and/or the Electronic Booking System and its component parts belong exclusively to Terminal Operator and/or its licensors. Client undertakes to respect the concerned right holders' intellectual property rights to works, computer software and databases, made available to it, in whatsoever form, with due regard to applicable national and international copyright, software and database protection laws.

4.3.9 Legislation on the protection of privacy

The operation of its IT system and the Electronic Data Platform and the execution of other contractual obligations may require that Terminal Operator processes personal data (i.e. data relating to Client's employees using the Electronic Data Platform or applying for access, within the meaning of Belgian and/or European data protection legislation). Where applicable, Terminal Operator undertakes to comply with the applicable legal and statutory data protection provisions. Terminal Operator is dedicated to the fair processing of personal data. The personal data is processed by Terminal Operator and/or by Terminal Operator's Affiliate, in its/their capacity as controller(s), for the following purposes:

a) Access administration and control of the Electronic Data Platform;
b) Client relationship management;
c) The prevention of abuse and fraud;
d) For statistical purposes;
e) For evidence purposes;
f) To enable Terminal Operator to provide LNG Services; and,
g) For compliance with its legal and regulatory obligations.

Furthermore, Client acknowledges and approves that personal data may be communicated to a hosting services provider with whom Terminal Operator has made appropriate agreements regarding the protection of personal data. The data subject likewise has the right to consult its personal data by contacting Terminal Operator in writing, or, where appropriate, to ask for rectification of the data that concerns it. The data subject also has the right to object to the processing of its personal data, according to applicable data protection legislation. Where applicable, Client warrants and represents that:

a) It will solely communicate personal data to Terminal Operator, on having given the data subject the appropriate legal information as regards the data processing; and,
b) The data subject has given its unambiguous consent to transfer its personal data to countries outside the European Economic Area which may not have well developed data protection legislation when compared to European law.

As required by applicable data protection legislation, Terminal Operator follows adequate security procedures and takes measures to ensure that the personal data processed is not lost, misused,

altered, damaged or destroyed or accidentally disclosed to a third party. Terminal Operator will not disclose personal data to any other third party unless it is requested to do so by law or regulators.

4.4 LNG TRUCK APPROVAL NOTIFICATION TEMPLATE

LNG TRUCK APPROVAL NOTIFICATION TEMPLATE

E-mail to: ship-shore@fluxys.com

[CLIENT]

Dear Sirs,

LNG Truck Approval Notification for [CLIENT NAME]

We hereby ask Fluxys LNG to start the LNG Truck Approval Procedure for our LNG Trailer. Please find in attachment all required documents, as stated in the Access Code for Truck Loading (ACTL 3.2.1.1) regarding the LNG Truck Approval Procedure.

Yours faithfully,

4.5 DELIVERY NOTIFICATION TEMPLATE

DELIVERY NOTIFICATION TEMPLATE

[CLIENT'S SHIPPER]

Fluxys LNG NV
To the attention of LNG Operations
Henri-Victor Wolvensstraat 3 Kaai 615
8380 Zeebrugge

Fax : + 32 (0) 50.36.66.09
E-mail: info.lng@fluxys.com and
DBLTruck@fluxys.com

Dear Sirs,

Delivery Notification for [CLIENT'S SHIPPER NAME/TRANSPORTER]

We hereby confirm that

(i) we instruct Fluxys LNG to deliver [QUANTITY] kWh of LNG (corresponding to [QUANTITY] Truck loadings) on the road trailer(s) which shall be presented by [CLIENT'S SHIPPER NAME/TRANSPORTER] at your Zeebrugge LNG Terminal as from today [DATE] until [END DATE];
(ii) we authorize Fluxys LNG to deduct the loaded quantity of LNG from our Gas in Storage account at the LNG Terminal.

We hereby also authorize Fluxys LNG to hand over in our name to the Trucker of [CLIENT'S SHIPPER NAME/TRANSPORTER], the LNG Truck Quality and Quantity document.

Yours faithfully,

4.6 REQUEST FOR LNG TRUCK LOADING NOTICE TEMPLATE

REQUEST FOR LNG TRUCK LOADING NOTICE TEMPLATE

[CLIENT]

Fluxys LNG NV
To the attention of LNG Operations
Henri-Victor Wolvensstraat 3 Kaai 615
8380 Zeebrugge

E-mail: DBLTruck@fluxys.com

Date and time of Request:

Dear Sirs,

We hereby request Fluxys LNG to load our road trailer(s) with LNG, on the following proposed dates:

Proposed Day	Time of Arrival	Client's Shipper's LNG (Supplier of LNG)	Truck Company	Truck Reference	Requested quantity (%/m³/ton)[3]	Need for Cool Down	Receiver - Destination[4]

Please confirm our Request for LNG Truck Loading Notice and, if necessary or desirable, propose another date and/or time.

Many thanks in advance.

Yours faithfully,

[3] Requested quantity of LNG to be stated in m^3. When editing Starting Hours, the Client can also complete each Starting Hour with a quantity of LNG expressed in either mass (ton) or percentage filling level (%). It should be noted that the quantity of LNG expressed in m3 confirmed by the Client's Shipper cannot be exceeded.

[4] Optional: specify the destination (email addresses), only needed if you want us to send the Truck Quantity & Quality Certificate electronically

4.7 LNG TRUCK QUALITY AND QUANTITY DOCUMENT

Fluxys LNG N.V.
Rue Guimard 4
B-1040 Brussels

Tel: +32(0)2 282 74 33
Fax: +32(0)2 230 02 50
e-mail: info.lng@fluxysing.net

FLUXYS

LNG TRUCK QUALITY & QUANTITY DOCUMENT

LNG loaded at LNG terminal Zeebrugge:

Date:	dd/mm/yyyy hh:mm
Shipper:	
Truck Company:	
Identifier code:	
Truck Name:	XXXX
Truck Loading Reference:	TRL-XXXX-YYYY
Truck has been cooled down	No

LNG composition (Mol%)

N2	CH4	C2H6	C3H8	i-C4H10	n-C4H10	i-C5H12	n-C5H12	C6H14+

Physical properties

LNG Temperature:	°C	UN1972 aardgas, sterk gekoeld, vloeibaar, 2.1(B/D)
LNG Density:	kg/m³	UN1972 gaz naturel liquide réfrigéré, 2.1 (B/D)
Gas Density:	kg/m³(n)	UN1972 natural gas, refrigerated liquid, 2.1 (B/D)
GHV:	kJ/m³(n)	UN1972 erdgas, tiefgekült, flussig, 2.1 (B/D)
	kWh/m³(n)	
	kJ/kg	
	kWh/kg	
Wobbe:	kJ/m³(n)	
	kWh/m³(n)	

Quantities

Energy:	GJ
	MBtu
	MWh
Volume:	m³
Net Loaded:	kg
Gas Volume:	m³(n)

For Fluxys LNG:

For Truck Company:

GLOSSARY OF DEFINITIONS

4.8 PURPOSE

The present glossary contains the definitions of terms and expressions used in the LNG Access Code for Truck Loading and the LNG Agreement for Truck Loading.

4.9 DEFINITIONS

1) ***Affiliate*** means a company affiliated to a Party with the meaning of article 11 of the Belgian Company Code and article 19.1 of the Gas Act, as amended, or any successor thereof.

2) ***Availability Check*** means the verification performed by Terminal Operator prior to an allocation on a "first committed/first served" basis by comparing the requested number of Starting Hours with the total available capacity minus the already allocated Starting Hours at the time of the request. The requested number of Starting Hours will be capped to the total available capacity minus the already allocated Starting Hours, when exceeding;

3) ***Billable Period*** means the period between the date of the issuing of the invoice and the previous invoice date or the Service Start Date (as the case may be).

4) ***British Thermal Unit*** or ***BTU*** means that amount of heat which is equal to one thousand fifty-five decimal zero six (1,055.06) Joules.

5) ***Bulletin Board*** means an electronic bulletin board offered by Terminal Operator for trading of LNG Truck Loading Services between Terminal Users on the Secondary Market.

6) ***Business Day*** means a day in Belgium other than a Saturday or Sunday or a bank holiday, or a "bridging" day which falls between a bank holiday and a Saturday or Sunday. The dates of the bank holidays and bridging days being notified prior to each Contract Year by Terminal Operator to Terminal User.

7) ***Capacity Charge*** means the charge per Contract Year payable for the LNG Services subscribed to under an LNG Agreement for Truck Loading, in accordance with the Regulated Tariffs.

8) ***Celsius degree*** *or* ***°C*** means the specific interval, expressed in °C, between a Kelvin temperature and the temperature of two hundred seventy three comma fifteen (273.15) Kelvin, defined as such in the ISO 1,000 SI units and recommendations for the use of their multiples and of certain other units.

9) ***Client*** means the entity to which the Client's Shipper's Natural Gas is transferred to by Terminal Operator at the Redelivery Point for Truck Loading which, for the avoidance of doubt, may be Shipper (as the case may be).

10) ***Client's Shipper*** means a party having executed LNG Agreement(s) with the Terminal Operator for the delivery and storage of LNG at the LNG Terminal and has concluded an agreement with a Client to deliver LNG at the LNG Truck Loading Station.

11) ***Client's Shipper's LNG*** means LNG delivered by or on behalf and in the name of Shipper at the Delivery Point for Truck Loading.

12) ***Client's Trailer*** means the road trailer (including truck and LNG semi-trailer or LNG container on semi-trailer as the case may be) designated by Client for loading of LNG from the LNG Terminal under this Agreement and which has been approved by Fluxys LNG in accordance with the LNG Truck Approval Procedure.

13) ***Code of Conduct*** means the Royal Decree dated 23 December 2010 on the code of conduct regarding access to transmission grids of natural gas, to the storage installation of natural gas and to the LNG installation, and amending the Royal Decree of 12 June 2001 on general conditions of supply of natural gas and on conditions for granting authorizations for natural gas supply, published in the official Belgian Gazette on 5 January 2011 (Moniteur belge/Belgisch Staatsblad), as modified or replaced from time to time.

14) ***Confidential Information*** means the commercial information on Client or other Terminal User, directly or indirectly communicated to Terminal Operator, with the exception of the information generally known to the public, in any other way than by wrongful action of Terminal Operator.

15) ***Contract Term*** means the period beginning on the date on which an LNG Agreement for Truck Loading enters into force, and ending on the date of termination (howsoever caused) or expiry of same in accordance with the provisions of the LNG Agreement for Truck Loading.

16) ***Contract Year*** means a period of one (1) Year beginning at 06:00 hours on 1 January in any calendar year.

17) ***CREG*** means the "*Commission pour la Régulation de l'Electricité et du Gaz*" as referred to under Article 15/14 of the Gas Act, or any successor commission thereof.

18) ***Cubic Metre*** or ***m³*** means the volume occupied by a cube each edge of which is one (1) Metre in length.

19) ***Day*** means a period of twenty-four (24) hours, (or twenty-three (23) or twenty-five (25) as the case may be for daylight saving days) beginning at 00:00 hours on each day and ending at 24:00 hours (Belgian time) on the same day.

20) ***Delivery Point*** means the point at the LNG Terminal at which the flange coupling of the LNG Terminal's unloading line joins the flange coupling of the LNG manifold on-board the LNG Ship.

21) ***Direct Material Damages*** means damage to tangible property which has a causal link with an error made by a Party in accordance with article 9 of the LTL.

22) ***Due Date*** means the latest Day by which an invoice needs to be paid in accordance with the GC of the LNG Agreement for Truck Loading.

23) ***Effective Date*** means the date on which an LNG Agreement for Truck Loading enters into force.

24) ***Emergency*** means any event or circumstance, whether or not qualifying as Force Majeure, which necessitates urgent measures to be taken by Terminal Operator, acting as a Reasonable and Prudent Operator, in order to maintain the integrity of the LNG Terminal, the LNG Ship, the LNG Truck and/or the grid, respectively.

25) ***Escrow Account*** means a bank account opened in an institution having its registered office in Belgium and duly authorized by the National Bank of Belgium, in accordance with the Escrow Account procedure and the following principles:
    (i) the bank account shall be opened in the names of both Parties; and,
    (ii) any payment from the Escrow Account shall require the signature of both Parties; and,
    (iii) any interest accrued on an amount paid on the Escrow Account shall be for the benefit of the Party having paid said amount into the Escrow Account, subject to payment of any bank costs and payment of the interests which are due in accordance with the invoicing provisions of the LNG Agreement for Truck Loading.

26) ***EURIBOR*** or ***Euro Interbank Offered Rate*** means the rate at which Euro interbank term deposits are offered by one prime bank to another prime bank, as quoted on Moneyline Telerate pages 248-249 and 47860-47866. In the event Moneyline Telerate ceases to quote Euribor rates, the Parties agree to specify another Euribor source that is sponsored by the European Banking Federation (the FBE). If no FBE sponsored source is available, reasonable efforts are to be used by the parties to an LNG Agreement for Truck Loading to agree on a different Euribor source.

27) ***Euro*** or ***€*** means the single currency of the Member States of the European Union belonging to the euro zone.

28) ***Financial Bank Guarantee*** means the financial security on first demand a Client may be required to provide in accordance with the provisions of the GC of the LNG Agreement for Truck Loading.

29) ***Force Majeure*** has the meaning given to it in the LNG Agreement for Truck Loading.

30) ***Freeze Period*** means the rolling period after 11 AM until the end of the subsequent Gas Day in which the Client is no longer allowed to edit the content of the Starting Hour.

31) ***Fuel Gas*** means the Natural Gas used by Terminal Operator to operate the LNG Terminal.

32) ***Gas Act*** means the Belgian law concerning the transportation of gaseous and other substances by pipeline of 12 April 1965, as amended from time to time, or any successor thereof.

33) ***Gas Day*** means the period of twenty-three (23), twenty-four (24) or twenty-five (25) hours, as the case may be, beginning at 06:00 hours (Belgian time) on each Day and ending at 06:00 hours (Belgian time) on the following Day and the date of any Gas Day shall be the date of its beginning as herein defined.

34) ***Gas In Storage*** or ***GIS*** means on any hour of any Day a Quantity of LNG, expressed in energy terms, as calculated in accordance with the LNG Access Code.

35) ***Gas Regulation*** means Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005 (Text with EEA relevance).

36) ***General Conditions*** or ***GC*** means the General Conditions as set out in an LNG Agreement for Truck Loading.

37) ***Government Authority*** means any of the authorities of a government and any political subdivision or agency or instrumentality whether executive, legislative or judicial thereof.

38) ***Gross Heating Value*** or ***GHV*** means that quantity of heat expressed in kWh produced by the complete combustion of one (1) normal Cubic Meter of Natural Gas at twenty-five (25) degrees Celsius and at an absolute pressure of one decimal zero one three two five (1.01325) bar with excess air at the same temperature and pressure as the Natural Gas when the products of combustion are cooled to twenty-five (25) degrees Celsius and when the water formed by combustion is condensed to the liquid state and the products of combustion contain the same total mass of water vapour as the Natural Gas and air before combustion.

39) ***Joule*** or ***J*** means the work done when the point of application of a force of one Newton is displaced a distance of one Metre in the direction of the force.

40) ***kWh*** means a kilowatt hour and equals to three decimal six (3.6) Megajoule.

41) ***Liquefied Natural Gas*** or ***LNG*** means Natural Gas in a liquid state at or near its boiling point and at a pressure of approximately one (1) atmosphere.

42) ***LNG Access Code*** *or* ***AC*** means the document consisting of a standard set of rules and procedures governing regulated access to the LNG services offered by Terminal Operator to any Terminal User using the LNG Terminal operated by the Terminal Operator in Zeebrugge, as published by the Terminal Operator in accordance with the Code of Conduct.

43) ***LNG Access Code for Truck Loading*** *or* ***ACTL*** means the document consisting of a standard set of rules and procedures governing regulated access to the LNG Services offered by Terminal Operator to any Terminal User using the LNG Terminal operated by the Terminal Operator in Zeebrugge, as published by the Terminal Operator in accordance with the Code of Conduct.

44) ***LNG Agreement*** means an agreement with Terminal Operator for the provision of LNG Services under the AC at the LNG Terminal.

45) ***LNG Agreement for Truck Loading*** or ***LTL*** means the agreement approved by the CREG under which LNG Services under the ACTL are subscribed and used by Client.

46) ***LNG Services*** means the services as described in ACTL 2.1 which may be subscribed to under an LNG Agreement for Truck Loading and which shall subsequently be provided by Terminal Operator at the LNG Terminal.

47) ***LNG Ship*** means any LNG ship to be used to deliver LNG to the LNG Terminal or to load LNG from the LNG Terminal and which has been approved by Terminal Operator in accordance with the provisions set out in the LNG Access Code.

48) ***LNG Terminal*** means the land, facilities and rights belonging to Terminal Operator at Zeebrugge, Belgium, for the berthing of an LNG Ship, the Transfer, storage and delivery of LNG and Send Out of regasified LNG into the grid, and the loading of LNG Trucks together with any expansion or modification thereof.

49) ***LNG Terminalling Program*** means LNG terminalling program approved by the CREG and published by the Terminal Operator in accordance with the Code of Conduct.

50) ***LNG Truck Approval Notification*** means the notification sent by Client to Fluxys LNG in accordance with the form enclosed in ACTL 4.4.

51) ***LNG Truck Approval Service*** means the service consisting of the approval of Client's Trailer by Fluxys LNG as specified in the LNG Truck Approval Procedure.

52) ***LNG Truck Approval Service Charge*** means the charge payable for the LNG Truck Approval Service, in accordance with the Regulated Tariff.

53) ***LNG Truck Cool Down Service*** means the service, only provided together with and immediately prior to the LNG Truck Loading Service and consisting of cooling down the Client's Trailer by Fluxys LNG in order to meet the specifications as outlined in ACTL 3.3.

54) ***LNG Truck Cool Down Service Charge*** means the charge payable for the LNG Truck Cool Down Service, in accordance with the Regulated Tariff.

55) ***LNG Truck Loading Service*** means the service consisting of loading by the Terminal Operator of the Client's Shipper's LNG into the Client's Trailer the LNG Terminal in accordance with the provisions of this LNG Access Code for LNG Truck Loading.

56) ***LNG Truck Loading Service Right*** means the number of LNG Truck Loading Service Starting Hours, to which Client is entitled to book for the duration of this service as specified in the Service Confirmation Form.

57) ***LNG Truck Loading Service Right Charge*** means the charge payable for the LNG Truck Loading Service Right, in accordance with the Regulated Tariff.

58) ***LNG Truck Loading Station*** means the installation used for loading LNG Trucks and located in the LNG Terminal in accordance with ACTL 3.8.

59) ***Planned Maintenance*** has the meaning given to it in ACTL 3.5.

60) ***m³ LNG*** means a volume of Liquefied Natural Gas occupying one (1) Cubic Metre.

61) ***m³(n)*** (normal cubic metre) of Natural Gas means the quantity of Natural Gas which at zero (0) degree Celsius and at an absolute pressure of one decimal zero one three two five (1.01325) bar and when free of water vapour occupies the volume of one (1) Cubic Metre.

62) ***MBTU*** means one (1) million (106) British Thermal Units or BTUs.

63) ***Megajoule*** or ***MJ*** means one million (10^6) Joules.

64) ***Metre*** or ***m*** means the distance travelled by light in vacuum during a period of time of 1/299,792,458 of a second (as determined by the "Cahier Général des Poids et Mesures", Paris, 1983).

65) ***Month*** means a calendar month, starting at 00:00 on the first Day and ending at 24:00 on the last Day of such month.

66) ***Monthly Capacity Charge*** means the Capacity Charge due per Month.

67) ***Natural Gas*** means any hydrocarbon or mixture of hydrocarbons and non-combustible gases which, when extracted from the subsoil of the earth in its natural state separately or together with liquid hydrocarbons, is in gaseous state.

68) ***Off-Specification LNG*** means LNG which does not comply with the Specification as set out in ACTL 3.3.

69) ***Operating Rules*** means the rules for the operation of the LNG Terminal, as set out in ACTL 3.1.

70) ***Party*** means the Terminal Operator and the Client as identified in the LNG Agreement for Truck Loading when individually designated.

71) ***Parties*** means the Terminal Operator and the Client as identified in the LNG Agreement for Truck Loading when collectively designated.

72) ***Primary Market*** means the market of LNG Services traded directly by the Terminal Operator.

73) ***Quality and Quantity Document*** means the document handed over to Trucker as specified in the form enclosed to ACTL 4.7.

74) ***Quantity*** means the quantity of Natural Gas, LNG or, Fuel Gas, as applicable, expressed in energy terms (kWh), on a Gross Heating Value basis.

75) ***Reasonable and Prudent Operator*** means a person seeking to perform its contractual obligations in compliance with all applicable laws and regulations and, in so doing and in the general conduct of its undertaking, exercising that degree of skill, diligence, prudence

and foresight which would reasonably and ordinarily be expected from a skilled and experienced operator engaged in the same type of undertaking under the same, or similar, circumstances and conditions.

76) ***Redelivery Point for Truck Loading*** means the point at the LNG Terminal at which the flange coupling of the LNG Terminal's loading line joins the flange coupling of the trailer.

77) ***Regulated Tariff*** means the tariff applicable for the provision of the LNG Services or any portion thereof, as approved by the CREG.

78) ***Request for LNG Truck Loading Notice*** means the request notice for an LNG Truck loading sent by Client to Fluxys LNG subject to the provisions in ACTL 3.1.1.6 in accordance with the form of ACTL 4.6.

79) ***Requested Quantity of LNG*** means the quantity of LNG, requested by the Client and confirmed by the Client's Shipper, for the redelivery by the Terminal Operator to the Client under the LNG Agreement for Truck Loading.

80) ***Scheduling Congestion Freeze Period*** means a period of time in which the Client can no longer cancel his Starting Hour free of charge, but is credited with 50% of the slot price if the Starting Hour is still scheduled by another Client. The Scheduling Congestion Freeze Period will not start more than 31 Days before the Starting Hour.

81) ***Scheduling Congestion Period*** means a period of time during which the requested Starting Hours exceed or are expected to exceed the offered Starting Hours. A Scheduling Congestion Period will be announced at least two (2) Business Days before the start of the Scheduling Congestion Freeze period of the first Starting Hour in the Scheduling Congestion Period.

82) ***Scheduling Time*** means the time as from which Terminal Operator shall allow scheduling of the Starting Hours for the Contract Years offered in a Subscription Window or open season or the time as from which Terminal Operator shall allow scheduling of the Starting Hours during a Scheduling Congestion Period.

83) ***Secondary Market*** means all transactions of LNG Services elsewhere than on the Primary Market.

84) ***Segment 1*** means the part of the grid from the LNG Terminal to and including OKS (Oostkerkestraat).

85) ***Service Confirmation Form*** means the form (as published on the Terminal Operator's website) duly completed by Terminal User and accepted by Terminal Operator, in accordance with the ACTL. Any duly approved Service Confirmation Form shall become part of the LTL and be added in attachment A of the LTL

86) ***Service Confirmation Form for Contracting*** or ***SCFC*** means the form in ACTL 4.1.

87) ***Service Confirmation Form for Assignments*** or ***SCFA*** means the form in ACTL 4.1.

88) ***Service Request Form*** means the form (as published on the Terminal Operator's website) which the Terminal User shall use to request for LNG Services in accordance with the ACTL.

89) ***Service Request Form for Contracting*** or ***SRFC*** means the form in ACTL 4.1.

90) ***Service Request Form for Assignments*** or ***SRFA*** means the form in ACTL 4.1.

91) ***Service Start Date*** means the date specified in the Service Confirmation Form for the start of the Service Term.

92) ***Service End Date*** means the date specified in the Service Confirmation Form for the end of the Service Term.

93) ***Service Term*** means the duration of a service subscribed by the Client under an LNG Agreement for Truck Loading as specified in the relevant Service Confirmation Form.

94) ***Shipper*** has the meaning given to it in the LNG Access Code.

95) ***Specification*** means the quality specifications set out in ACTL 3.3.

96) ***Specification for the Redelivery Point for Truck Loading*** means the Specification for the Redelivery Point for Truck Loading set out in ACTL 3.3.

97) ***Starting Hour*** means a date (DD/MM/YYYY) and hour (HH:MM) used to schedule the LNG Truck Loading Services and LNG Truck Cool Down Services (if applicable), which can be booked by Client on a "first committed/first served" basis, subject to the conditions set out in ACTL 3.1.

98) ***Subscription Window*** means the window for requesting LNG Services in accordance with the provisions set out both in the LNG Access Code for Truck Loading and the terms and conditions for such window.

99) ***Terminal Operator*** has the meaning given to it in the LNG Agreement for Truck Loading.

100) ***Terminal User*** shall mean Shipper or Client.

101) ***Truck Approval Procedure*** means the procedure as set out in ACTL 3.3 detailing the specifications and requirements to be met by Client's Trailers prior to being allowed entry in the LNG Terminal.

102) ***Truck Loading Test*** means the compulsory set of tests within the framework of the Truck Approval Procedure to assess physical compatibility between the Client's Trailer and the Truck Loading Station prior to the approval of the Client's Trailer.

103) ***Trucker*** means the driver of the Client's Trailer.

104) ***Unplanned Maintenance*** has the meaning given to it in ACTL 3.5.

105) ***Wobbe Number*** has the meaning given to it in the LNG Access Code for Truck Loading.

106) ***Year*** means a period of twelve (12) consecutive Months.

107) ***Zig Day-Ahead*** means the Platts' Zeebrugge Assessment Day-Ahead index for Natural Gas expressed in €/MWh and as published by Platts.