Scope of work

**GLE Small Scale LNG STUDY:**

**Map of the small scale LNG infrastructure in Europe**

1. **Who we are**

Gas LNG Europe (GLE) currently comprises 14 European LNG terminal operators from 9 countries, representing around 93% of all the existing LNG regasification capacity in Europe. GLE is one of the columns of GIE, Gas Infrastructure Europe, the European association of the Transmission, Storage and LNG terminal Operators. GLE is committed to promoting the development of a fully operational European internal market for LNG and the creation of a stable and predictable regulatory framework which is conducive to investments and which ensures transparency and non-discriminatory treatment.

2. **Background**

GLE members are interested in supporting the small scale LNG development in Europe. This development is strongly driven by policies and targets to reduce emissions in the transport sector. New emissions control regulations are making LNG an increasingly attractive option for the short sea shipping sector as well as for road transport.

**On 13 December 2012 the GIE General Assembly approved the budget for a GLE study in 2013 on small-scale LNG development. In the GLE ExCom/Plenary held on 14 December 2012 the GLE members agreed to use this budget to develop a map showing the small scale LNG infrastructure in Europe.**

On 24 January 2013 the European Commission announced within the Clean Power for Transport Package a Communication on a European alternative fuels strategy, a Directive focusing on infrastructure and standards and an accompanying document describing an action plan for the development of LNG in shipping.

- LNG is used for waterborne transport both at sea and on inland waterways. LNG infrastructure for fuelling vessels is at a very early stage, with only Sweden having a small scale LNG bunkering facility for sea going vessels, with plans in several other Member States. The Commission is proposing that LNG refuelling stations be installed in all 139 maritime and inland ports on the Trans European Core Network by 2020 and respectively 2025.

- LNG is also used for trucks, but there are only 38 filling stations in the EU. The Commission is proposing that by 2020, refuelling stations are installed every 400 km along the roads of the Trans European Core Network.

The GLE small scale LNG map will support this initiative not only by showing existing small scale LNG infrastructure and projects but also by identifying missing links in the network. In addition to the transport sector, the study shall support the development of the use of LNG in off pipeline locations.
3. **Goal of the study**

The result of the study shall be an Excel database and – based on the Excel – a map showing the small scale LNG infrastructure in Europe. It shall cover the infrastructure for sea transport, transport on inland waterways as well as road transport. Additionally, it shall show the existing infrastructure as well as the planned infrastructure (i.e. projects) and public accessible and private facilities (e.g. LNG filling stations).

It shall not only show the type and location of the infrastructure, but also standardised additional information of each facility (e.g. website, capacity).

The map will be made available to the public in electronic and printed format and will thereby greatly enhance the visibility of GLE in this new area.

4. **Small Scale LNG infrastructure (types)**

The small scale LNG infrastructure map shall cover the following facilities (in addition to the ‘large scale’ LNG infrastructure):

4.1. **LNG import terminals offering small scale services**

LNG receiving terminals, also called regasification facilities or regas facilities, receive LNG ships, store the LNG until is required, and send out natural gas into the pipeline grid. Additionally, they can offer small scale services:

- loading of bunkering ships,
- truck loading or
- rail loading, whereas rail loading isn’t offered in Europe yet.

4.2. **LNG small scale liquefaction plants**

LNG is produced in small scale liquefaction plants to supply peak shaving demands, as well as to make available natural gas to regions that need it but where it is not economically or technically feasible to build new pipelines.

4.3. **LNG (stationary) bunkering facilities for vessels**

This facility allows ships to bunker LNG to be used as fuel for the vessel.

4.4. **LNG satellite storage**

They enable the use of Natural Gas off pipeline locations. LNG is delivered by trucks or by small LNG transport ships to satellite stations. Then the LNG is either distributed by trucks to the end users or it is regasified and injected into the natural gas distribution networks.

4.5. **LNG refuelling stations for trucks**

This facility allows trucks to fill LNG to be used as fuel.
5. **Information provided in the database and map**

For each single facility the following minimum information shall be provided:
- Owner/operator (name and logo)
- Contact details: Location (address), website
- Start-up year

In addition, for LNG import terminals the small scale services offered will be provided.

Other information can be added only if the data collection process is within the budget. Such information needs to be standardised for each type of infrastructure (e.g. units). Also the map design has to be taken into consideration (space).

In case of symbols, abbreviations or units, a map and/or data legend shall be added.

As a starting point and reference the GLE LNG Map shall be used: [http://www.gie.eu/index.php/maps-data/lng-map](http://www.gie.eu/index.php/maps-data/lng-map)

6. **Stakeholders**

The study shall support the development of LNG as transport fuel and the use of LNG in off pipeline locations, i.e. satellite storages. Interested groups may include, but are not limited to:

- Gas infrastructure operators
- Ship and truck fleet operators
- Organisations, institutions and authorities dealing in the energy or transport sector
- European, national and regional policy makers
- Industrial gas end-users
- Public and private investors

7. **Cooperation**

In order to guarantee efficiency and to avoid redundancies, the GIE Secretariat will discuss the agreed scope of work with other organisations for a potential cooperation and promotion of GLE activities:

- Protocol of international LNG bodies: On 12 February 2013 a meeting was held to discuss retail LNG activities. GIIGNL, SIGTTO and GLE participated. Members of the protocol in addition to GLE:
  - GIIGNL (The International Group of LNG Importers)
  - SIGTTO (Society of International Gas Tanker and Terminal Operators)
  - Eurogas (European Union of the Natural Gas Industry)
  - IGU (International Gas Union)
- NGVA (Natural Gas Vehicles Association Europe), which has already expressed its interest for cooperation. They can provide information regarding LNG filling stations in Europe.
- GERG (European Gas Research Group)
- IFIEC Europe (International Federation of Industrial Energy Consumers)

Any other relevant organisations are welcome.
7.1. Forms of cooperation

Organisations which are co-funding the study will be offered to publish their logo on the map in a prominent position. Organisations not co-funding the study but significantly cooperating in providing data will be offered to provide their logo in the sources section of the map.

8. Work packages, responsibilities and timeline

The small scale LNG study shall consist of several work packages with different responsibilities and deadlines.

8.1. Authorisation of a consultant

The GIE Secretariat will contact consultants to ask for offers based on the agreed scope of work. It will give a recommendation to the GLE members and ask for their final decision. Then the GIE Secretariat will authorise the consultant and provide all available information to support the work of the consultant. This shall be done until the end of June 2013.

8.2. Agreement on other information

Once the consultant is authorised, the GIE Secretariat will know whether the budget allows the collection of other information for the database and map. Such other information shall be agreed until the end of August 2013.

8.2.1. Proposal of GLE members

In the next GLE Small Scale LNG WG meeting in May 2013 the GLE members will be asked to propose and specify which other information shall be provided for each type of small scale infrastructure in the database and map. The minimum information requested as described above shall be used as basis. In case the data collection process can’t be done due to budget restrictions, the proposal will be kept by the GIE Secretariat for a future upgrade of the study.

8.2.2. Consultation of stakeholders

In case the budget allows the collection of other information, the GIE Secretariat in cooperation with the consultant will contact some stakeholders to identify their contributions/needs until the end of July 2013.

8.2.3. Decision by GLE members

The GIE Secretariat will forward a proposal of other information in the database/map to the GLE members for final decision until the end of August 2013.

8.3. Agreement on cooperation

The GIE Secretariat – and the consultant within the process of data collection – will ask relevant organisations for a cooperation offering both forms described before. The GLE members will be asked for final approval. This shall be done until the end of August 2013.

8.4. Collection of the data

The responsibilities for data collection are split by the type of small scale LNG infrastructure. This process shall be finalized until September 2013.
The consultant is expected to start data collection of minimum information immediately after authorisation. The consultant has to disclose to GIE all sources of information used.

<table>
<thead>
<tr>
<th>Small Scale LNG Infrastructure</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>LNG import terminals offering small scale services</td>
<td>The GIE Secretariat will provide all requested information based on the input from GLE members (GLE Small Scale LNG Inventory).</td>
</tr>
<tr>
<td>LNG Small Scale liquefaction plants</td>
<td>The GIE Secretariat will provide the location of these few plants in Europe, but the consultant will be authorised to collect any additionally requested information not included in the GLE LNG Map.</td>
</tr>
<tr>
<td>LNG (stationary) bunkering facilities</td>
<td>The consultant will be authorised to collect all data.</td>
</tr>
<tr>
<td>LNG satellite storage</td>
<td>The consultant will be authorised to collect all data.</td>
</tr>
<tr>
<td>LNG refuelling stations for trucks</td>
<td>The consultant will be authorised to contact NGVA and to ask for cooperation to organise the data.</td>
</tr>
</tbody>
</table>

8.5. Development of the database

All data shall be included in an Excel spreadsheet. The data Excel shall have a professional format and shall be easy to read, to analyse and to maintain as it will be published together with the map on the GIE website. The GIE designer shall be involved in the development of the layout of the data Excel in order to guarantee the easy transfer of information into the map.

The data Excel shall be available at the end of September 2013 and will be sent to the GLE members for final review. The feedback of the GLE members has to be included.

The consultant will be authorised with this work package. After delivery of this work package, the contract of the consultant is fulfilled.

8.6. Design of the map

Based on the Excel database the map shall be designed and sent to the GLE members for review. The final version of the map in electronic format shall be available until the end of November 2013.

The GIE Designer will be authorised with this work package.

8.7. Print version

The GIE Designer will take care of the print version. The number of copies will be decided by the GIE Secretariat and will respect environmentally responsible behavior. The print version shall be available in the second half of December 2013.

8.8. Promotion

The map shall be promoted by the GIE Secretariat via publication on the GIE website and a press release before the end of 2013.
9. **Deliverables**

Based on the work packages above, the following deliverables are expected:

<table>
<thead>
<tr>
<th>No.</th>
<th>Subject</th>
<th>Comment</th>
<th>Responsibility</th>
<th>Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Consultant contract</td>
<td>Signed contract available</td>
<td>GIE Secretariat</td>
<td>28.06.2013</td>
</tr>
<tr>
<td>2.</td>
<td>Other information</td>
<td>Decision if budget is available to provide other information</td>
<td>GIE Secretariat</td>
<td>28.06.2013</td>
</tr>
<tr>
<td>2.1.</td>
<td>Other information</td>
<td>Proposal of GLE members</td>
<td>GIE Secretariat</td>
<td>28.06.2013</td>
</tr>
<tr>
<td>2.2.</td>
<td>Other information</td>
<td>Collection of other relevant information</td>
<td>GIE Secretariat, Consultant</td>
<td>26.07.2013</td>
</tr>
<tr>
<td>2.3.</td>
<td>Other information</td>
<td>Decision on other information to be provided</td>
<td>GIE Secretariat</td>
<td>30.08.2013</td>
</tr>
<tr>
<td>3.</td>
<td>Cooperation</td>
<td>Potential cooperation partners contacted and decision on cooperation taken</td>
<td>GIE Secretariat, Consultant</td>
<td>30.08.2013</td>
</tr>
<tr>
<td>4.</td>
<td>Data collection</td>
<td>Collection of all relevant information</td>
<td>GIE Secretariat, Consultant</td>
<td>27.09.2013</td>
</tr>
<tr>
<td>5.</td>
<td>Database</td>
<td>Format of Excel agreed with GIE designer and all data entered incl. sources of information</td>
<td>Consultant</td>
<td>27.09.2013</td>
</tr>
<tr>
<td>5.1.</td>
<td>Database</td>
<td>Review by GLE members</td>
<td>GIE Secretariat</td>
<td>11.10.2013</td>
</tr>
<tr>
<td>5.3.</td>
<td>Database</td>
<td>Comments of GLE members</td>
<td>Consultant</td>
<td>18.10.2013</td>
</tr>
<tr>
<td>6.</td>
<td>Map</td>
<td>Design of the map</td>
<td>GIE Designer</td>
<td>15.11.2013</td>
</tr>
<tr>
<td>6.1.</td>
<td>Map</td>
<td>Review by GLE members</td>
<td>GIE Secretariat</td>
<td>22.11.2013</td>
</tr>
<tr>
<td>6.2.</td>
<td>Map</td>
<td>Final electronic version available</td>
<td>GIE Designer</td>
<td>29.11.2013</td>
</tr>
<tr>
<td>7.</td>
<td>Print version</td>
<td>Decision on number of copies by GIE Secretariat, authorisation to print by GIE Designer and delivery to GIE office</td>
<td>GIE Designer</td>
<td>13.12.2013</td>
</tr>
</tbody>
</table>

10. **Budget**

A budget of EUR 50,000 (excl. VAT) is approved. A higher budget can be possible due to co-financing cooperation or shifts within the total GIE budget. A budget shift requires the approval of the GIE Board.

11. **Language, Location, Legislation**

The language of the study and all communication in context with this study shall be English. Meetings with the consultant shall be held at the GIE office in Brussels. All agreements shall be governed by Belgium law.