

Lisbon, 20 June 2012

**Subject: Report from meeting with ad hoc experts in relation to LNG April 17, 2012  
at DG MOVE, Brussels**

## **1. Introduction**

The Commission invited, through the ESPO and ECSA, a number of pioneer ports and ship-owners that have already ordered LNG-propelled or have far-reaching plans for shifting to do so in the future or for ports that are in the process of offering LNG either by setting up small scale LNG terminals, or by other means offering LNG to ship-owners such as through ship-to-ship transfer with direct first-hand experience of the issues.

The aim for this first meeting was to, within the framework of the the Commission "Pollutant emission reduction from maritime transport and the Sustainable Waterborne Transport Toolbox"<sup>1</sup>, to set up of a platform gathering the relevant stakeholders on LNG as ships' fuel focussing on concrete technical and operational obstacles to the use of LNG. It was especially noted that at this stage, funding issues will not be addressed.

The aim of these consultations from the Commission side at this stage is to develop an action plan with proposed activities that would specifically facilitate to the use of LNG as alternative fuel in shipping. EMSA is acting as secretariat for these meetings.

The agenda is enclosed to this report.

## **2. Meeting with ship-owners**

The first meeting of the day was dedicated to discussion with the ship-owners that have already ordered LNG-propelled ships or have far-reaching plans to do so in the near future. The meeting was well attend by 15 ship-owners as well as a European Ship-owner Association and European Cruise Council, the generally atmosphere was good and positive. It turned out that a few ship-owners has concrete plans on running on LNG within the next few years.

Magda Kopczynska, HoU DG MOVE, made some general remarks on the state of play of the revision of the sulphur directive as well as explaining the Commissions intention with regard to their Sustainable Waterborne Transport Toolbox.

Henrik Ringbom, EMSA, made a presentation on "State of play for LNG and what can be done", *enclosed*. This presentation focused on explaining the complexity of the bunker chain. In addition a number of on-going project looking into this specific area was briefly presented. One of these projects were presented in more details "The North European LNG

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<sup>1</sup>Issued in September a Staff Working Paper, COM (2011) 441, in September 2011 to accompany the proposal for an amended Directive 1999/32/EC.

Infrastructure Project" by Mogens Schroder, Danish Maritime Authority, the coordinator of the project. The project is reaching its end and some of the proposed recommendations was presented. Presentation *enclosed*.

A *tour de table* showed some very positive notes by a few ferry companies. It seems like they will be the sector that will be the first to make the move. It was evident that some of these ship-owners are considering, as an interim solution, to modify even present ferries to run on gas but due to the lack of available LNG in the ports they will instead use containers with LNG which they will take on-board as trailers and "plug them in as LNG fuel cells" as an interim solution until LNG will be more readily available. Other ship-owner expressed that for them this was not a possible solution and they were dependent on a more mature LNG infrastructure which for some of them was said to be missing. One expressed that they will start service with ferries running on LNG soon and they have managed to get contracts for LNG delivery. However, this ship-owner expressed the main issues for them are approval of tank location in the ships and the need to bunker LNG with passengers/crew onboard the ship to ensure short stopovers. Another ship-owner with very concrete plans to run ferries on LNG are facing problems with land-based authorities who are currently refusing bunkering at an existing LNG terminal.

It was evident that currently for a number of ship types LNG is not a feasible option both with regard to LNG availability since they are not on fixed routes (thus not possible to bunker at same ports at regular intervals) but also due to the need to install large LNG tanks on-board to carry sufficient bunker in areas without chance to refill. LNG is thus for some ship types and traffic patterns not be the best option.

#### *Main barriers*

Another issue that was mentioned by one of the ship-owners (and confirmed in other meetings by ports) was the public perception of LNG. This does not correlate with the real risks, as LNG is seen by all as a safe fuel with excellent safety record.

Another potential showstopper is currently that some ship-owners find it difficult to receive prices for LNG bunker as they are seen as "small scale customers" by gas suppliers. Another potential barrier expressed was the uncertainty if ports would accept them or if local rules could prevent solutions with for example LNG tanks on deck.

Some discussion also took place on safety level. Most people involved agree that that so far LNG has a good safety record but if LNG will be used as ship-fuel in wider segment this has to especially taken into account. The main barrier mentioned was related to training of the crew. Once LNG will become a wide-spread solution, training and qualification of staff would become even a bigger issue.

On a more technical note one ship-owner mentioned that they see a problem with navigational response time when using LNG compared to traditional fuels. They did consider solving this by using MGO/HFO on-board for steering purposes.

Furthermore the need to ensure compatibility between developing rules and practices for use of LNG in inland waterways and in sea areas was mentioned.

#### *Lack of regulation*

Pia Berglund, EMSA, made a presentation of the topic of "Working towards a comprehensive framework of rules, standards and guidelines for provision and use of LNG", *enclosed*. The sustainable toolbox contains an idea to assess whether the adoption of common EU-wide guidelines or standards is justified and one option on how this could be done was presented by EMSA. In brief an outline for a possible Common EU Guidelines was presented and

discussed. EMSA idea is to try to get a wide picture of what relevant rules and guidelines that will be in place for the full infrastructure chain including all relevant elements such as certification of LNG fuelled ship (incl. inland vessels), certification of bunker ship, guidelines for the port, terminals and guidelines for LNG bunkering and operational guidelines for LNG Bunkering. A lot of work in this area is being made within the framework of other organisations as IMO, ISO, SIGTTO, IAPH etc. but a full picture is needed to ensure that everything is covered.

In general ship-owners did not see a need for additional regulation, but rather need to ensure continuation of current best practices and wider application of such best practices (harmonisation). One example giving was whether all ports would not accept the safety solution that a specific ship has chosen. The issues most mentioned were the lack of requirements for training. The swift availability of guidance material was mentioned as being very important.

### **3. Meeting with ports**

Only two ports (Antwerp, Rotterdam) attended the ad hoc meeting with the ports in the afternoon. This was due to the fact that ESPO since long had invited for a meeting on LNG two days after this meeting. In addition ESPO and IAPH were present at this meeting. The meeting was very informal due to the very limited number of participants.

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Henrik Ringbom, EMSA, made a presentation on "State of play for LNG and what can be done", enclosed. This presentation focused on explaining the complexity of the bunker chain. In addition a number of on-going project looking into this specific area was briefly presented. One of these projects were presented in more details "The North European LNG Infrastructure Project" by Mogens Schroder, Danish Maritime Authority, the coordinator of the project. The project is reaching its end and some of the proposed recommendations was presented. Presentation enclosed.

We were informed about the two ports plans with regard to the use of LNG as ship fuel. It was evident that the both present ports were very well advanced in their plans to be able to offer LNG to ships in their ports. This might not be representative for smaller ports.

The ports informed about their project within International Association of Ports and Harbours (IAPH) and its *World Ports Climate Initiative*. They have established a working group for storage and bunkering of LNG. The lead port is Antwerp and will have a wide number of participation of ports from mainly Europe but also from other parts of the world. We had a brief discussion in the meeting on how to align their work with any potential work on European guidance. The ports see a need for harmonisation of standards and rules in particular with regard to the land side planning processes (tanks) which are handled differently by local authorities.

An interest in establishing liquification plants can be seen whereby the port is not dependent on the import of gas but can take the gas from the gas grid. This possibility exist in Norway, Russia and Finland but are also consider in the port of Brunsbüttel (DE) together with Gasnor as well as in Hamburg with Lindegas.

#### *Main barriers*

The main concern of the ports present seemed to be the lack or the uncertainty of the demand for LNG. Thus it is difficult for them to establish realistic scenarios and assumptions

for type and size of LNG infrastructure. Another concern has to do with the public consultation required as a consequence of the SEVESO Directive. According to the participants it is a problem that since the limit for LNG is set already at 200 m<sup>3</sup> before the terminal is defined to be a SEVESO II installation more rigid consultation is required. It would help if a middle layer was introduced for medium size LNG terminals.

Other issues addressed was the need of a harmonised approach on LNG risk assessment. Rules already exist in other transport modes (eg trucks). Another issues that are seen as a problem is the EU rules requiring gas to be sold on the free market (unbundling of infrastructure and services) The ports were worried that this could be a problem with regard eg to bunker barges.

Just like ship-owners, ports see the lack of public awareness on benefits of LNG as a potential joint barrier.

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This idea was welcomed but the need of close cooperation with current work was highlighted.

#### **4. Outcome of the meetings**

The main outcomes from the both meetings could be summarised as follows:

- Plans of some ferry operators very advanced; drivers are SECAs, but also general economic considerations(price of oil; also driver for LNG in Asia, US).
- Some ports take concrete steps to provide LNG.
- Retrofitting LNG seems possible (issues with tank size/location).
- Lack of spot market/availability of LNG issue for shipowners (but eg Shell claim this is only matter of time and spot cargo market is picking up already).
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EMSA announced its plans to invite for a second meeting with the group in Lisbon on June 5-6.

*Annex – Agenda of the meeting*