

## **Developments in the use of LNG as marine fuel**

**Roel Hoenders**

**Project officer for environmental protection**

**European Sustainable Shipping Forum  
1<sup>st</sup> Plenary – 27 November 2013**

## Addressing barriers related to the use of LNG

### Commission/EMSA Ad-Hoc LNG Expert Group meetings

- ❑ Meetings took place in April, June and December 2012
- ❑ Representatives of the entire chain: gas-industry, engine builders, ports, classification societies, ship-owners and Member States
- ❑ More interest and participants in every meeting
- ❑ Facilitating an open dialogue between different parties
- ❑ Determine how the Commission + EMSA can be instrumental
- ❑ ***JOINTLY identified all possible barriers and gaps***



#### ▪ **Outcomes:**

- ❑ LNG as a fuel is not new (first LNG fuelled vessel operates since 2000)
- ❑ A few EU ports provide LNG bunkering, but experience is still limited
- ❑ Uncertainty as regards the price and availability of LNG in ports
- ❑ **Absence of a binding international and/or EU regulatory framework/code for LNG fuelled ships & LNG bunkering**
- ❑ Diversification of bunkering rules may lead to a disturbed level-playing-field for EU ports + different local requirements for ship-owners

## Filling the gaps: addressing regulatory barriers

- **In the absence of a binding legal framework, how to guarantee a uniform and high level of safety when bunkering LNG in the EU?**

### 1. EMSA (on behalf of the Commission) pro-actively contributes to finalizing the IGF Code

- International Code of Safety for Gas-Fuelled Ships will supersede the current interim guidelines for gas fuelled ships
- Outstanding issues (*LNG storage tank location, alternative design arrangements, mobile tanks, approval and certification, etc.*) are discussed in the **IMO CCC** (carriage of cargoes and containers) and **IMO SDC** (ship design and construction) sub-committees.
- LNG bunkering aspects only addressed from the ships side.
- To be finalized by end of 2014, early 2015

### 2. EMSA procured a specific study that identifies all regulatory barriers related to LNG bunkering to Germanischer Lloyd

- Including a full regulatory gap-matrix + proposal for a EU LNG bunkering standard
- Finalized early 2013 after a wide consultation of stakeholders

## Filling the gaps: addressing regulatory barriers

- In the absence of a binding legal framework, how to guarantee a uniform and high level of safety when bunkering LNG in the EU?

### 3. EMSA actively engages in various international regulatory initiatives to ensure alignment in the EU with int. developments

- Final draft of **ISO's** Technical Specifications for LNG bunkering to be discussed in a final meeting before the end of the year
  - ❑ Technical Specifications remain a voluntary document
  - ❑ certain aspects may still require more detailed elements (training, risk assessments,...)
- Contributes to the drafting of "bunkering checklists" and "accreditation guidelines" by **IAPH** (Int. Ass. of Ports and Harbours)
  - ❑ sector initiative to set minimum standard + avoid patchwork of rules
  - ❑ increasing interest of ports worldwide, but voluntary instrument
- Follows the initiative of **SIGTTO** to set up a new NGO specifically for LNG fuelled ships
  - ❑ to be accredited at IMO
  - ❑ still in early phase of development: setting up secretariat, membership

## Filling the gaps: addressing regulatory barriers

- In the absence of a binding legal framework, how to guarantee a uniform and high level of safety when bunkering LNG in the EU?

### 4. EMSA follows up the findings and outcomes of the various TEN-T financed projects which address the LNG (bunkering)

- Sub-regional TEN-T projects such as '**Costa**' or '**LNG in Baltic Sea Ports**' cover feasibility studies for LNG bunkering in ports, development of bunkering rules & planning of infrastructure
- New projects have recently been announced and should kick-off soon.

### 5. Recent Commission tender (€ 1.000.000) on the 'Completion of an EU framework on LNG-fuelled ships and its relevant fuel provision infrastructure' aims at completing the EU-wide framework for use of LNG as fuel

- Published on 17 October 2013, deadline for proposals mid-December
- **Lot 1** focuses on 'analysis and evaluation of identified gaps and of the remaining aspects' related to LNG distribution and bunkering



European Maritime Safety Agency



Search...



- Home
- About us
- Working with us
- Implementation Tasks
- Operational Tasks
- Events
- Publications
- News & Media
- Contacts

#### Menu Environment

- Main
- Sustainable Toolbox & LNG
  - Meetings
  - Relevant EU co-financed projects
  - Air Pollution - SOx and NOx
  - Anti-fouling Systems
  - Ballast Water
  - Greenhouse Gases
  - Liability & Compensation
  - Port Reception Facilities
  - Ship Recycling
  - Other Issues

#### Related Documents

- Final report of the EMSA commissioned study on standards and rules for bunkering of gas-fuelled ships (by Germanischer Lloyd) – OP/06/2012
- Overview and gaps of the regulatory framework for bunkering of gas-fuelled ships (regulatory gap-matrix)
- White Paper "Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system"
- Commission Staff Working Paper on pollutant emission reduction from maritime transport and the sustainable waterborne transport toolbox



### Support in relation to the Sustainable Waterborne Transport Toolbox

On 16 September 2011, the Commission issued a Staff Paper "Pollutant emission reduction from maritime transport and the Sustainable Waterborne Transport Toolbox" accompanying the Commission proposal and communication of 15 July 2011 amending Directive 1999/32/EC on the use of low sulphur marine fuels. (The amended Directive was adopted on 21 November 2012 as Directive 2012/33/EU).

The "Sustainable Waterborne Transport Toolbox" aims at addressing the environmental challenges the shipping sector is confronted with in an integrated manner, in order to help it to achieve sustainability objectives in the long run. The proposed actions shall be flexible and neutral and minimise any possible unwanted effects. The actions will be part of a coherent action to facilitate the efficient use of energy in the field of transport, i.e. the Clean Transport System Initiative (see the White Paper Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system). EMSA has been requested to support the development of a number of actions identified in the Sustainable Waterborne Transport Toolbox.

#### LNG as fuel in ships

The Commission has expressed its intention to proceed with some of the key actions outlined in that document, among them the setting up of a platform gathering the relevant stakeholders on LNG as ships' fuel. For this reason the Commission invited, to a first set of ad hoc meetings, the experts from relevant parts of the industry to initiate an exchange of view, focussing on concrete technical and operational obstacles to the use of LNG. The Commission indicated that at this stage, funding issues will not be addressed. The aim of the Commission at this stage is to develop an action plan that would specifically contribute to the use of LNG as alternative fuel in shipping. In 2012 a total of three expert group meetings took place. The last one, which was organised in Brussels in December, was also attended by a number of Member States representatives.

EMSA is acting as secretariat for the groups currently working; the port- and ship-owner groups.

In May 2012 EMSA published a tender for study to develop possible EU guidance and/or technical standards for LNG bunkering. The tender was awarded to Germanischer Lloyd. The final study is expected to be presented at the beginning of 2013.

The Commission has indicated that there might be a need for other expert groups to meet in order to discuss other issues related to the Sustainable Waterborne Transport Toolbox, such as scrubbers.

**THANK YOU FOR YOUR ATTENTION,**  
**roel.hoenders@emsa.europa.eu**