



LNG - The Norwegian Perspective

Although transportation on keel is one of the most environmental friendly ways to move goods, the global shipping industry emitted around 900 mill tons of CO2 in 2013 – which almost equals the CO2 emission of Germany as a whole in the same period. Since both Germany and Norway are amongst the largest shipping countries in the world, the way we act will have an impact on this picture.

Norway has developed its Small Scale LNG infrastructure for more than 10 years and has today around 40 distributed LNG terminals along the coast and 50 LNG propelled LNG vessels in operation. This makes Norway one of the pioneers in this business, and has "propelled" the development of some very skilled Norwegian vendor and suppliers of equipment and services in this sector.

Globally there are now another 50 LNG vessels under construction, whereof around 20 are Norwegian owned. According to DNV GL there will be 1000 vessels operating on LNG within 2020. LNG propelled vessels can significantly contribute to reduced emissions, both for the Norwegian short sea fleets and for deep sea transportation.

From January 1st 2015 new SECA rules will be implemented in the North Sea and Baltic Sea which will have significant impact for all maritime operations in these waters. Either ship owners / operators have to change from Heavy Fuel Oil to Marine Diesel Oil, or they have to install scrubbers – or they could go for LNG propulsion, especially related to new buildings. In Norway we also see the development of Battery propulsion, Fuel Cell propulsion and/or Hydrogen propulsion, but for now LNG seems to be the most competitive and viable solution.

Norwegian authorities have motivated their short sea vessel operators to change to LNG through implementing the Norwegian NOX fund. In addition, the Norwegian authorities and some state-owned companies have specified LNG or clean propulsion through public tendering for ferries, PSVs, tugs and other kind of ships. The Government has also developed and implemented a specific Maritime Strategy during the last 7 years that focus on cleaner and greener shipping.

By combining financial instruments like a NOX fund, reduction of port taxes and duties, implementing ship scrapping regimes for those ship-owners selecting to renew their old ships with LNG propelled ships, promoting development of small scale LNG distribution, etc. it is possible for governments to be a catalyst in facilitating a change to clean short sea shipping within a limited number of years.

Innovation Norway is the Norwegian government's official trade representative abroad. We are closely affiliated with the Norwegian embassies and consulates. Our mission is to be the National and the Regional Governments' policy instrument for value-creating business development across Norway. To implement our mission we have 19 offices in Norway and 40 offices abroad. Our vision is to give local ideas global opportunities, and our main goal is to trigger business development profitable from both a commercial and a socioeconomic perspective, and release the business





opportunities of all regions of Norway. We shall contribute to more Norwegian entrepreneurs, enterprises and business clusters.

With this background we intend to facilitate closer relations between Norwegian LNG related companies and representatives for LNG related activities in Germany. We see it as our task to act as intermediary between the two countries and to create opportunities for cooperation.

Norway has tested and implemented solutions on how to establish a cost efficient LNG infrastructure for both industrial and ship applications. In addition, Norway has ample experience in building and operating LNG propelled vessels in a safe and efficient way. In this regard Norway is willing to offer its experiences and technical know-how to Germany.

This could include:

• Implementation of a Greener maritime strategy

• Exchange of experience on LNG safety aspects through DSB (Norwegian Directorate for Civil Protection) and the Norwegian Maritime Authority

Design and specification of Small Scale LNG Terminals

• Access to ship-owners with small LNG tankers that can distribute LNG from large to small terminals

- Access to owners of small LNG terminals
- Access to companies with products to construct LNG terminals and LNG propelled vessels.

Let us go ahead with establishing win-win solutions in jointly implementing a better, greener and cleaner tomorrow.

If you have any questions regarding LNG technologies and learnings from Norway or want to get in touch with the Maritime industry, please contact one of our experts:

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