

# Size and scale 'are critical' to LNG bunker-supply ships, says Bomin Linde LNG boss

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Mahinde Abeynaiké: As demand increases, more bunker vessels will be introduced to the Baltic Sea

Hamburg-based Bomin Linde LNG has ordered [a 7,500m<sup>3</sup> LNG bunker-supply ship to be based at the Port of Klaipeda in Lithuania](#), serving a hinterland that spans the Baltic Sea. It signed a long-term time charter contract in September for the vessel with German shipowner Bernhard Schulte.

The 7,500m<sup>3</sup> newbuilding is the world's largest – and the first ice-class – LNG bunker-supply vessel ordered so far. The vessel is due for delivery towards the end of 2018. The vessel is only the sixth purpose-built LNG bunker-supply ship ordered to date.

Klaipeda is home to the Höegh LNG-owned, 170,000m<sup>3</sup> floating storage and regasification unit (FSRU) *Independence*. Its Lithuania-based charterer Klaipedos Nafta will hold a 10 per cent stake in the bunker-supply ship, cementing the Blue LNG partnership the energy company formed with Bomin Linde LNG late last year.

The partners decided early on to invest in a dedicated supply vessel to position Klaipeda as a regional bunkering hub. They see opportunity in the Baltic due to tighter regional emissions regulations that are driving regional ferry operators and cruise ship operators to consider the switch to LNG as marine fuel.

Bomin Linde LNG also plans to expand its regional truck-to-ship LNG bunkering supply operations.

This autumn's announcement ends a busy year of preparation for Bomin Linde. *LNG World Shipping* sat down with Bomin Linde LNG chief executive Mahinde Abeynaiké and asked him to outline the company's ambitions for LNG as marine fuel and its plans for Klaipeda.

## **Q&A: Bomin Linde LNG chief executive Mahinde Abeynaike**

### **Tell us about the design spec for your LNG bunker-supply ship.**

The vessel will have a capacity of 7,500m<sup>3</sup>. You have to be somewhat flexible – in terms of the size of vessel you plan to supply and in terms of where you will deliver. So in economic terms, we believe that size matters and scale matters.

But from an operational point of view, you also need all the operability that bunker-supply operations demand. Our 7,500m<sup>3</sup> bunker-supply vessel with dynamic positioning (DP2) and ice-class features and a high degree of manoeuvrability provides excellent bunkering capabilities at an economically favourable size. It also offers a great degree of mobility that ensures availability of our bunkering services in many ports in the Baltic sea.

It will also have a very fast flow rate of up to 1,250m<sup>3</sup>/hr, making it possible to serve customers that only have a short layover.

### **You formed the Blue LNG joint venture in Lithuania with Klaipėdos Nafta in late 2015; how are you working together to progress this project?**

We hold 90 per cent of the recently ordered LNG bunker vessel for the Baltic Sea; Klaipėdos Nafta is participating with a 10 per cent stake. We will use the vessel mainly for bunkering of LNG and for services linked to our terminal in Nynashamn in Sweden.

Klaipėdos Nafta will use the bunker-supply ship to supply their truck-loading station with LNG from the FSRU *Independence*. This FSRU will serve as our main hub to supply loads for our LNG bunker vessel.

### **How have Bomin Linde's LNG priorities evolved?**

The Linde Group has recently taken over 100 per cent of our shares. With the change in our shareholder structure we strengthen our position, better realising synergies with the existing Linde LNG operations and securing more direct access to our parent company's unique cryogenic engineering knowhow.

Every participant in this very young market has been on a learning curve. Initially, our focus was on landside storage solutions but it became clear that providing mobility of supply has priority, in particular in the early phase of the market.

It's also been about having direct access to a hub – a terminal capable of receiving large LNG carriers, and having from that hub the distance or proximity to the delivery point. That distance needs to be as short as possible to offer commercially attractive prices.

### **What happens next?**

We must focus on getting everything prepared to operate the world's largest LNG bunker vessel. Our priority is securing all the approvals we need in the ports and ensuring we have technology and procedures that are compatible with the LNG-fuelled vessels that are on order.

The new emissions regulations mean that more and more ferry operators are looking at LNG and there is increasing interest from the cruise ship industry in this area too.

Our existing infrastructure includes our LNG terminal in Nynashamn, Sweden and we have the small LNG bunker barge *Seagas*. Both complement the new bunker vessel, giving Bomin Linde LNG a unique position to secure LNG supply in the Baltic Sea. Of course we will also continue to supply our customers with LNG from trucks.

**Will your ship compete against the Shell and Engie bunker-supply ships based out of Rotterdam and Zeebrugge – or against rumoured operators based in Russia?**

We will see several separate supply zones emerge in the northwest Europe market rather than one joint market. On the one hand, terminals such as Gate in Rotterdam and Zeebrugge in Belgium will serve the North Sea. On the other, we will serve the Baltic Sea using the terminal in Klaipeda and our mid-scale terminal close to Stockholm.

We will be looking to serve most of the Baltic Sea ports in Denmark, Sweden, Finland, the Baltic States, Poland and Germany. We cannot rule out the fact that in the future more LNG-supply sources will become available. That will increase our operational flexibility.

As demand increases, more bunker vessels will be introduced to the Baltic Sea. This will help the market to develop and we support this. However, ship-to-ship bunkering requires experienced and credible suppliers. Being the first mover in the Baltic Sea, backed by a shareholder with the competency and reputation of a globally leading industrial gases supplier bears a strong advantage.

**Everyone in the industry is trying to predict when demand will take off for LNG as marine fuel; what are your thoughts?**

First, we have seen the ferries move. Thanks to their fixed schedules and the fact that they operate point to point they are the ideal first movers on customer side. No one was expecting cruise ships to switch so quickly, but now they are coming up fast, too. A number of tankers and also some container vessels have taken final investment decisions for dual-fuel vessels.

From 2020 all vessels in European Union waters must comply with 0.5 per cent sulphur regulations and potentially that will also become effective at the same time on a global level. This could massively drive the demand for LNG as a bunker fuel. Shipowners investing in new vessels will have to choose whether to invest in a dual-fuel engine, ie being in a position to use LNG or to bet on fuel oil/gas oil only.

The latter alternative may lead to lower residual value for the vessels after 2020. However, in the current market environment, the investment level in new tonnage in particular in container business remains low, no matter if for LNG-fuelled or traditionally propelled vessels.

Investing in LNG-fuelled cargo vessels could become a way to differentiate successful shipowners from others. Certain large customers have started to prefer transportation suppliers that ensure environmentally friendly shipping solutions.

As gas is becoming much cheaper than oil again, the payback for the additional investment in a dual-fuel vessel is improving. For both, passenger traffic and cargo shipping, there is a viable business case supporting the ordering of LNG-fuelled vessels rather than betting on the old oil-based technology.

**What challenges come with taking LNG shipping out of an LNG-only environment – and finding and retaining crew that have the skills and experience to uphold the industry’s impressive safety record?**

The Linde Group has a long track record working with cryogenic gases; we have that competence. The level of professionalism in the supply chain is very high. On the regulatory side, things are handled strictly and we are confident, particularly in northwest Europe, that there will hardly be any gaps. LNG has been out there for what, 50 years and the accident rate when handling LNG is low.

As a member of the Society for Gas as a Marine Fuel (SGMF), Bomin Linde LNG is involved in developing international guidelines to ensure safety during LNG bunkering operations.

On the customer side, the requirements for the crew are manageable. The crew will have all the gas-handling and safety training they need. On our side – the supplier side – we will have a highly specialised and trained crew. The customer will not need their crew to become cryogenic experts.

**Final question; what are you most excited about – and what keeps you awake at night, worrying?**

I’m excited about LNG as marine fuel – it is becoming a great market. And this is happening now. LNG is the bridge between the world of fossil fuels and the world of renewables. And there is hardly any doubt that the trend to this renewable fuels’ world is unstoppable.

I am positive enough about our business that I manage to sleep well at night. However, no one would have minded if this market had ramped up at a higher pace over the last years. This is changing now. The recent new orders of LNG-fuelled cruise ships are good indicators that this speed will increase.