

## LNG – a cleaner choice

If you've ever had the opportunity to compare an LNG fuelled vessel with one running on heavy fuel oil, or even diesel, the difference is clear.



**KIMMO RAHKAMO**  
CEO, Skangas

While heavier fuels blacken the sky with their exhaust, LNG exhaust is barely visible, and probably the LNG vessel is noticeably quieter as well. LNG, Liquified Natural Gas, is obviously the cleaner choice, yet many hesitate to acknowledge it as the ultimate solution, instead categorising LNG as a 'bridge fuel' in the move toward 100 per cent renewable power.

Kimmo Rahkamo, CEO of Skangas, the leading supplier of LNG to industry and shipping in northern Europe, couldn't agree more. Rahkamo has spent most of his career working toward cleaner energy solutions, and he believes that LNG is simply the cleanest option for bridging the gap between fossil fuel and renewables.

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One of the key contributors to establishing the biofuels business at Neste, Rahkamo sees biofuel as a likely next step toward renewable marine fuel, though volume constraints will make a gradual transition necessary: "Biofuels can be a good solution, but volumes will not be able to meet demand for some time," he points out. "Even if all the vegetable oil produced in the world today was used for fuel, it would barely be enough to meet the energy demands of Germany alone."

For now, he says, LNG is the cleanest available marine fuel, and he believes that common sense will lead more shipowners and operators to the low carbon fossil fuel alternative that LNG provides. "Owners are becoming increasingly aware of the branding advantage that a cleaner choice gives them." As proof of this, he notes that Carnival Corporation has several LNG ships on order.

"Cost is a factor, but for Carnival, public image is more important than saving a penny." End users are more and more interested in their overall carbon footprint, he points out, and this is influencing choices all along the value chain in the entire industry. "It drives owners to go greener, or cleaner."

### If you don't build it ...

"We are building up our infrastructure, expanding both our terminal network and our shipping capacity," Rahkamo reports. Skangas will begin trading with Coralius, a highly advanced, 1A ice classed bunkering and distribution vessel, in the summer of 2017. In addition they have a new terminal facility under construction in Finland.

"We realised that if we don't build the infrastructure, no one will ever use LNG as fuel. These are all relatively heavy investments in the Nordic perspective, but we have faith that our business expectations will be met."

There is good reason for such optimism. Among those who have chosen the LNG option offered by



Fjord Line has chosen the LNG option offered by Skangas.

Skangas are Fjord Line, running two cruise ferries between Norway and Denmark, and the recently launched Finnish icebreaker Polaris. "We also are in dialogue with other cruise ferry operators who are considering a similar solution to Fjord Line."

"Choosing an LNG ship was risky as little as five years ago," he notes. "Now that the infrastructure is in place, it has become much less risky to count on LNG as fuel."

### Compliance – and the customer

Another key driver in the growth of marine LNG is the ever-tightening regime of emission regulations. "The 0.5 sulphur cap on marine fuel coming in 2020 will be a huge issue for oil fuels," Rahkamo believes.

Though the total impact will not be felt overnight, he notes that changes on the horizon have already spurred some oil companies to change their business models. "Some companies are resisting, but new regulations offer great opportunities for creative and flexible players."

Even though regulations will be a major force influencing the future of LNG, Rahkamo knows that the customer is king: "Regulations set the stage, but customers are making the moves. They

don't all have to use LNG, but the clean nature of LNG is an increasingly important factor in many business decisions."

### A solid bridge

Though the transition from fossil fuel will be determined by volume constraints on alternatives in the near future, Kimmo Rahkamo does see other solutions approaching. "Renewables and better energy management are also becoming priority in developing countries, where growth will come in the next decades."

But for now, Skangas will continue to concentrate on northern markets, with a strong focus on strengthening the supply of LNG to ships. "Marine is a growth segment for us, and we are talking to a lot of shipowners. The good news is that technically, LNG works. It can be used on any ship type. That gives companies that want to make greener choices a viable option."

He feels certain that the magic number of 1000 ships running on LNG will be reached – just not as soon as some have predicted. Regardless, the move to the cleanest fossil fuel available is fully underway, with Skangas leading the way in the north: "We have sold 400,000 tonnes of LNG in 2017. We can already be proud of our contribution."