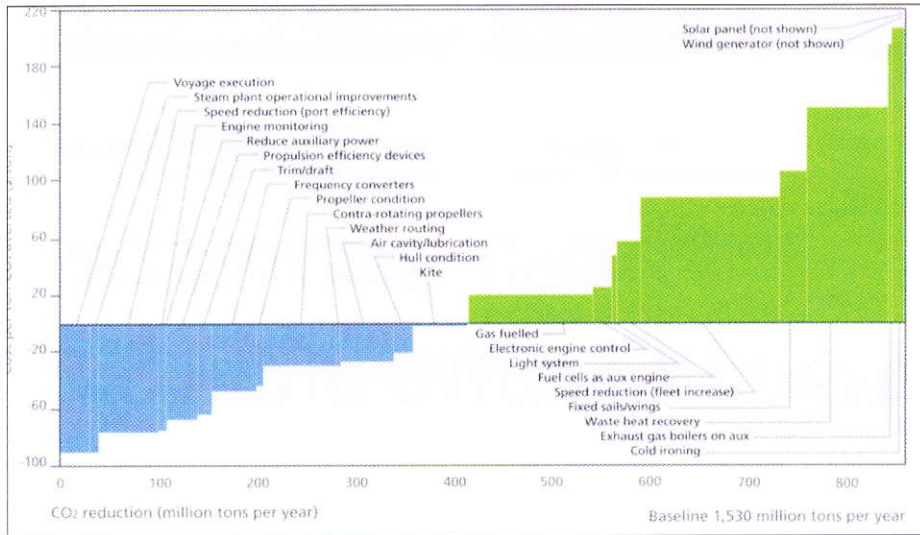


# Retrofitting offers access to golden opportunities



The emission savings that can result from air lubrication technology (source: DNV, 'Pathway to Low Carbon Shipping')

## Katia Kardash, CEO, DK Group, shows how retrofits of eco-efficient technology can drive the shipping industry forward.

As fuel prices ratchet up at an unnerving pace and new environmental legislation around greenhouse gases draws nearer, there is a growing demand for technologies that can counteract surging bunker fuel prices and deliver against the tightening emissions regulations and rising bunker fuel costs, resulting in significant cost savings. In a global fleet with an average age of 10 years, the opportunities presented by retrofit technologies in particular have never been more relevant.

The painful prospect of further rises in bunker costs is hitting ship owners and operators where it hurts at a time when many companies are facing cash flow challenges. Those ship owners that work with split incentives and pass on the cost of the bunker fuel to charterers will be feeling the pinch harder than most, as prices continue to outstrip even the most pessimistic of forecasts at \$646 per tonne as of 14 April.

### Technology catalyst

But the increase in fuel prices is also acting as a catalyst for innovative technologies that can help ship owners and operators to save costs. As paradoxical as that may seem, as fuel prices rise, those shipowners and operators who choose to invest in clean technologies can make their vessels not only more environmentally efficient, but also significantly more cost effective. With the impending timetable for regulatory change, it has never been more important for ship owners to look at the bigger picture and plan ahead. This shift in mindset is fundamental to unlock the money and resources that adopting clean technology can provide.

The reality is that the shipping industry and the IMO is under huge international pressure to reduce its CO<sub>2</sub> emissions and impact on climate change, and it appears increasingly likely that either the IMO or the EU will impose its own standards to curb GHG emissions. The key to any successful market based instrument is establishing a clear target to work towards, which also provides real incentive for the implementation and adoption of clean technologies, as it effectively creates a commercial market for the trading of credits; not to mention the cost savings that can be achieved as a result of reduced fuel consumption.

In response to this ongoing legislative debate, a recent survey by market intelligence company Fathom Shipping shows that over 60 emission-reduction technologies from 130 companies are currently being used by the shipping industry as it begins to embrace clean technology, driven by the



Katia Kardash, CEO of DK Group

need to cut emissions, which in turn cuts fuel bills, followed by a recognition that environmental responsibility drives up enterprise value. Whilst many of the technologies on the market - including those listed in Fathom's guide - may be well known, previously there were market barriers to industry take-up, including a lack of proven technologies, unreliability and low fuel prices. But these barriers are increasingly eroding and the industry is opening its eyes to the possibilities that innovative technologies, such as the air cavity system (ACS), can bring.

The pioneering ACS - an air lubrication technology that delivers up to 10% of fuel savings and which has been validated by the IMO GHG study, 2009 - is just one of a new breed of eco-efficient technologies that can be retrofitted in 14 days on the existing commercial fleet, which corresponds with a young global fleet and the easing of the newbuild vessel market. Although this technology is also applicable for newbuilds, given the average age of the global fleet - just over 10 years - in conjunction with increasing environmental regulation, the retrofit market is brimming with potential.

### Free money

The benefits of accessing this potential are clear; aside from the corporate social responsibility debate, reducing CO<sub>2</sub> and other related emissions through the implementation of new innovations and technologies will significantly increase efficiencies and levels of profitability for ship owners and operators. And with a 25% to 75% latent efficiency existing in the industry (according to the IMO), there is a lot to play for. Shipowners and operators who neglect this fact are effectively passing up free money by not exploiting the opportunities presented by eco-efficient technologies, and retrofit technologies in particular. The cost savings that can be realised with a payback time of just 18 months to three years at current bunker fuel prices will make a significant positive difference to the bottom line. This payback period will only reduce further as fuel prices climb and regulation for cleaner distillate fuels come online in 2015 and beyond.

While the industry is starting to look forward, of course there remain challenges for many ship owners and operators to break through and adopt the longer-term view that is needed to effectively prepare and safeguard operations against future changes. The industry is evolving, and fast. But in these turbulent times it is the pioneering, applicable and innovative eco-efficiency technologies that marry cost savings and reduced emissions that can provide stability for ship owners and operators as they focus on the horizon.