What is the real gap to ECO designs – and how much can you compensate by retrofitting?

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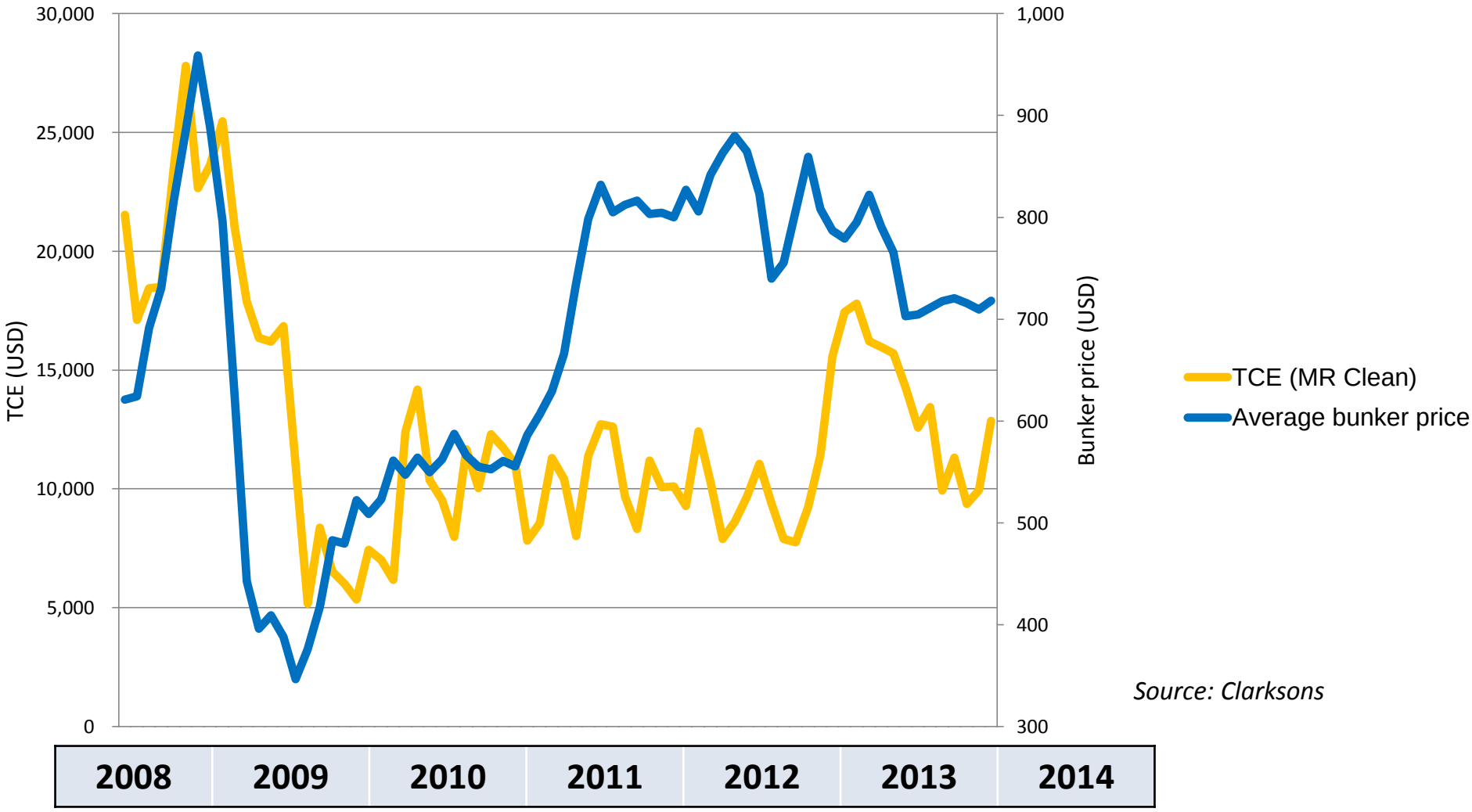
What are we looking at here?

Decision drivers have changed the game

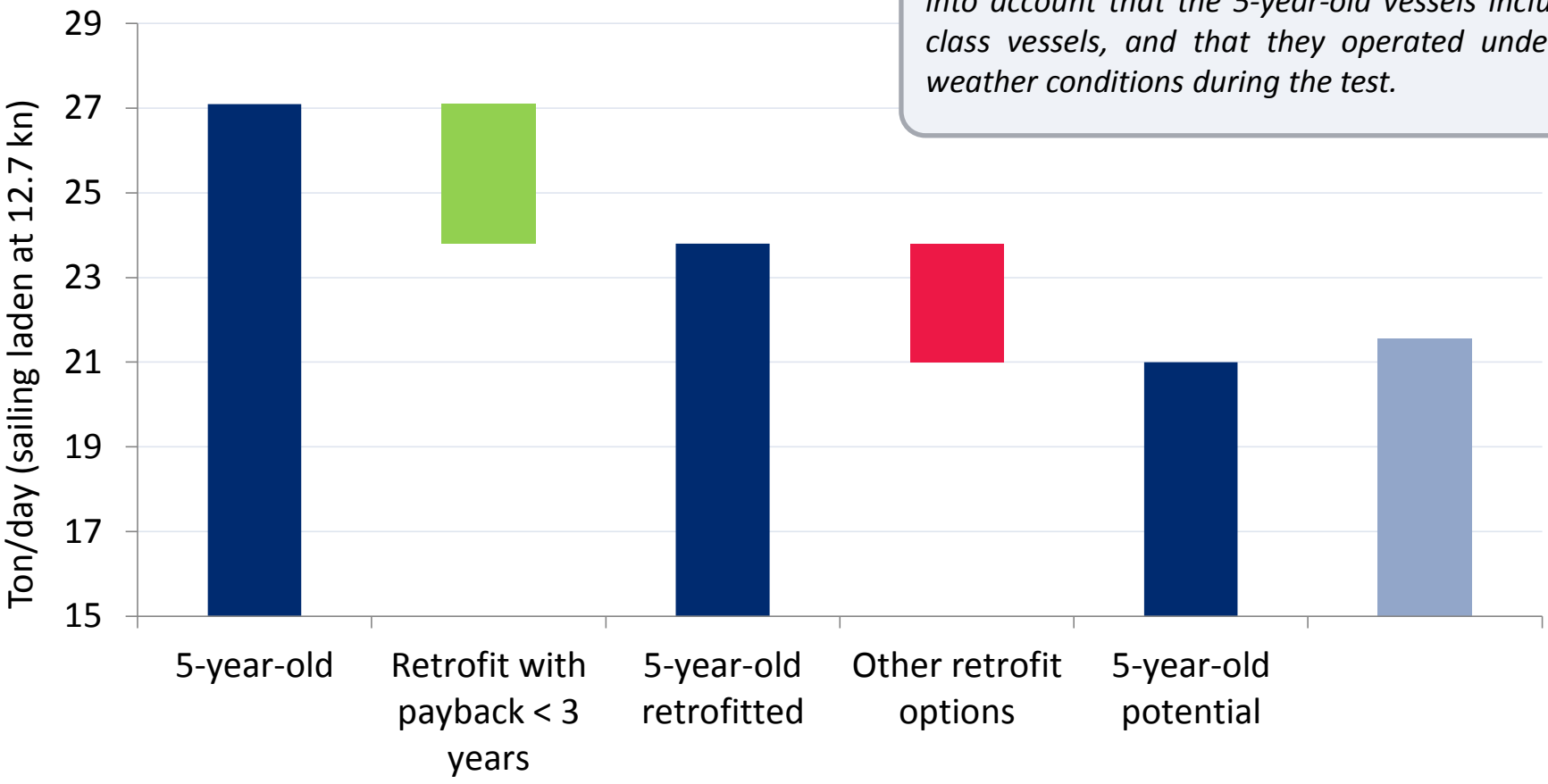


Source: Clarksons

MR type ECO comparison

A Tanker Company

A Tanker Company claimed to save around USD/day 3,900 on an ECO design MR vessel & sister vessels, compared to 5-year-old vessels from the pool. This equals 6.5 tons per day. The comparison did not take into account that the 5-year-old vessels included ICE class vessels, and that they operated under worse weather conditions during the test.



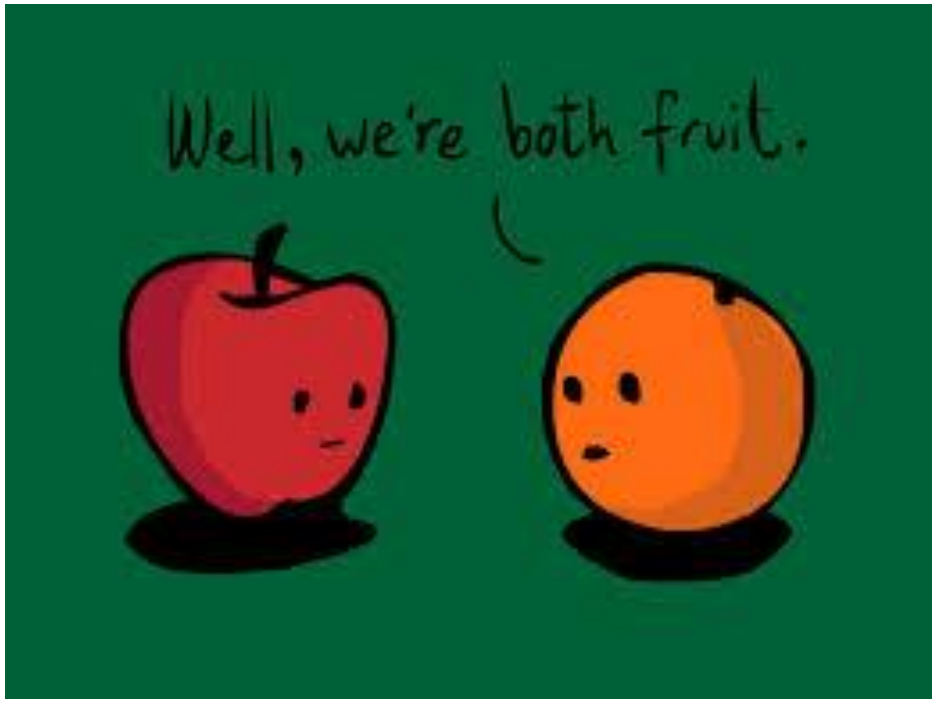
"ECO" vessels versus "normal" vessels

Primary differences between "ECO" vessels and "normal" vessels:

"ECO" vessels	Saving	Possible retrofit options	Potential	Diff.
Engine de-rating & larger propeller	*8-12%*	*De-rating solution available at USD 3 million including Kappel Propeller*	*(8-12%)*	*(8-12%)*
Hull optimization	*6-8%*	*Mewis duct, PBCF*	*3-5%*	*1-5%*
				(9-17%)

Other installations which are sometimes included on "ECO" ships and which are also available for retrofitting on "normal" vessels:

Type	Potential
Automated engine tuning	*1-2%*
Kappel propeller	*2-4%*
Fuel/water emulsion	*2%*
Low friction paint	*1-2%*
Aux. waste heat recovery	*1-2%*
Frequency controlled electric motors	*<1%*
Auto-pilot & trim software	*1%*
LED lights	*<1%*


Well, we're both fruit.

Thank you!

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