



MARITIME ACADEMY

ENERGY EFFICIENCY ON BOARD

Saving fuel through e-learning

Making significant improvements to the energy efficiency of on-board systems by using e-learning? What sounds like a challenging idea is now becoming real.

You can now get an electronic course for your masters, chief engineers and chief mates to learn about energy saving potentials that can be made on board a vessel. The e-learning course "Energy Efficiency on Board" developed by DNV GL's Maritime Academy raises awareness about improving energy efficiency simply by changing crew behaviour and optimising how equipment is used on-board.

It explains in simple steps how and where each individual measure can be introduced and implemented, how the benefits of improved process flows affect ship operations, and how great the potential energy savings can be.

What is your benefit - how it works

Each user will receive his own copy of the course. This is how you, as the ship operator, make sure that people really do the training. The course is supplied on a USB stick, so it can be run independently of internet access. Trainees can do the e-learning wherever they are, while they are at home -before joining the vessel-, while they are travelling -just using their laptop-, while they are on board or when they are in the office. This is the most flexible kind of training you will find anywhere!

What we offer - the course

The course is designed to help operators to significantly improve the energy efficiency of their on-board systems. Individual training modules outline a number of options for boosting energy efficiency looking at hull resistance, propulsion, main and auxiliary engines.

The participants will learn about ideas for improvement and be encouraged to think even further. With the tool, the users will understand how modifying behaviour and planning of processes can make a real contribution to saving energy.

The set-up

- Regulatory Background: Short review of the relevant regulatory background on energy efficiency
- Personal Involvement: This module focuses on the question "what can be done on board" and closes with the necessary personal commitment to bring about improvements
- Cost Perception: Raising the participant's awareness about the highest cost factors in ship operations (fuel)
- Engine Reduction: A practical example where the learner has to calculate possible savings. The calculation is based on the data from an example vessel
- Hull Resistance: Based on a given situation, deviations from normal parameters can be identified and communicated for further decisions
- Electrical Harbour Balance: Focus is now on the additional consumers, from large pumps to small bulbs, and the possibility to save energy also with small consumers
- Changing Trim: Based on sample figures the saving potential from improved trim can be calculated, raising awareness about this option
- Clever Manoeuvring: Through improved operation and manoeuvring on the bridge more savings can be identified
- Improved Voyage Planning: The concept of voyage planning is discussed from the perspective of energy saving
- Team Work and Team Building: Besides technical measures the importance of good communication as a basis for improved behaviour is highlighted throughout
- Closing: All measures are summarised and set in relation to their financial impact.
- A possible total saving per vessel is calculated to raise awareness about the relevance of "energy saving".
- Final test: The learner has to pass a final test to complete the course. Questions in this test are randomly taken from a large pool of questions, enabling users to take the test more than once if necessary. The pass mark is normally set at 70%, but can be defined differently on request

Other specific solutions are available for you

We offer you a well-designed and technically high level course. But we can also adapt the course to suit your company. Any specific documents, special procedures, specific questions - think about your specific requirements and come and discuss

CREATING PERSPECTIVES

You want to know more?

Please contact us at

DNV GL
Maritime Academy

Email: academy.maritime@dnvgl.com



the possibilities with us in a personal meeting.

For a normal vessel there are potential savings of millions of US dollars per year, just through changed behaviour, understanding and better planning by the crew on board. Taking this into account this training course pays for itself in no time. Train your crew to be efficient - don't wait any longer.