

## GL's EEDI Guidelines - Energy Efficiency Design Index

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*New GL "Guidelines for Determination of Energy Efficiency Design Index (VI-13-1)" has been published.*

The new GL "Guidelines for Determination of Energy Efficiency Design Index (VI-13-1)" will go into effect on 01.01.2012.

### 1) EEDI - Mandatory Requirements

The Energy Efficiency Design Index is becoming part of MARPOL Annex VI (adopted at MEPC 62) and will be mandatory for new ships:

- for which the building contract is placed on or after 1 January 2013; or
- in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction on or after 1 July 2013; or
- the delivery of which is on or after 1 July 2015.

The EEDI requirements will apply for ships with conventional propulsion (main engine, mechanical drives) of the following categories:

- Bulk carrier
- Gas tanker
- Tanker
- Container ship
- General cargo ship
- Refrigerated cargo carrier
- Combination carrier

Currently, Ro-Ro, Ro-Pax and Passenger ships and ships with diesel-electric propulsions are excluded from EEDI. However, extension of EEDI to these ship categories is planned for the near future (finalisation of IMO calculation guideline and reference line is scheduled at MEPC 65 -July 2013).

The new Guidelines for Determination of Energy Efficiency Design Index (VI-13-1) is already available on the GL homepage. Please click [here](#).

### 2) Voluntary EEDI Certification

Although EEDI certification will not be mandatory for newbuildings until the 1st of January 2013, owners and managers at the vanguard of sustainable shipping are already voluntarily looking to the EEDI as a means of demonstrating the efficiency of their new ship designs.

With GL's voluntary EEDI certification, both owners of newbuildings (for which EEDI certification is not yet mandatory), and owners and operators of existing ships can have third party confirmation of their ship's design efficiency in accordance with the IMO guidelines.

Please find further information about EEDI Certification [here](#).

### Contact

For questions, please contact: Germanischer Lloyd, Environmental Research,  
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For more regulatory and technical updates on the GL website, please click [here](#).

To subscribe to "GL Focus - Regulatory and Technical Update" newsletter, please click [here](#).



## EEDI – Energy Efficiency Design Index

### Rate your ship's efficiency for more competitiveness

#### The challenge of energy efficient ship design

Although shipping is well known as the most fuel-efficient mode of transport, it has been tasked with reducing its greenhouse gas emissions and doing its share to prevent global warming. As early as 1997, the Kyoto Protocol called for the development of measures to reduce CO<sub>2</sub> emissions, and the International Maritime Organisation (IMO) took action. One of the technical measures that have resulted from this is the Energy Efficiency Design Index (EEDI), which will be mandatory for new build vessels from January 1<sup>st</sup>, 2013 (contract date).

The intent of the EEDI is to provide a newbuilding standard, assuring that ship designs achieve a certain level of efficiency and decreased carbon emissions. It represents the energy efficiency of a ship's design, indicates the ratio between environmental impact (CO<sub>2</sub> emission per transportation work) and economic benefit and provides a benchmark against which ship efficiency may be evaluated.

Although the EEDI is not yet mandatory, owners and managers at the vanguard of sustainable shipping are already looking to the EEDI as a means of demonstrating the efficiency of their new ship designs. Now, with Germanischer Lloyd's (GL) EEDI Statement of Compliance, both owners of newbuildings and – with GL's newly worked out methodology for ships in service – owners and operators of existing ships can have third party confirmation of their ship's design efficiency in accordance with IMO guidelines.

#### GL solutions for energy efficiency

GL's EEDI Statement of Compliance confirms your ship design's transport work efficiency, according to MEPC.1/Circ.681 and Circ.682. The data used for final verification is gathered from the EEDI Technical File whose content and data you provide. Once verified, the EEDI value allows accurate assessment of a ship's performance with respect to IMO benchmarks, and can be used to compare individual ships with others in your fleet or with those of your competitors.



## GL – your EEDI expert

At GL, we understand that environmental excellence is of prime importance, but we also understand that shipowners and operators must maintain a profitable business in order to flourish in today's highly competitive shipping industry.

Our in-depth knowledge of green issues and ship design is based on long-standing experience in exhaust gas measurements, performance calculations for environmental credentials and all engineering aspects of ship design certification. This has led to an extensive portfolio of environmental services including EEDI Statement of Compliance.



In recognition of our know-how and our commitment to a sustainable future, we have been chosen by the German Ministry of Transport to serve as their technical advisors to the IMO in questions regarding the Marine Environmental Protection Committee (MEPC), and in particular in matters relating to EEDI and GHG reduction.

Our representation on IMO committees and our contribution to the development of international regulations places us in a unique position to help you understand future developments and to optimise your ships now to meet these demands.

### How you benefit

Ensure your competitive edge by taking advantage of GL's EEDI expertise. You gain:

- Independent verification of your vessel's efficiency
- A tool to compare your ship with others in your fleet
- A unique selling point in an overcrowded market: charterers see that, due to energy savings, your ship will cost them less
- Demonstration of your commitment to a sustainable future and an enhanced reputation

Innovation in ship design is a good thing, but without independent confirmation to show your customers just how good your design is, yours is just another ship. Let GL's EEDI Statement of Compliance confirm the state of the art of your ship's design and give you the competitive advantage you need.

#### One-stop shopping at GL

EEDI offers synergies with other GL Group fuel efficiency products and services:

##### Design solutions

- Design concept consultancy
- Design optimization (e.g., hull lines and appendages, machinery systems, lightweight structures)
- Environmental Passport (EP) class notation



##### Operations solutions

- Consulting on fuel efficient operations
- Performance monitoring and evaluation tools
- Software tools (e.g., trim optimization / ECO-Assistant, GL Emissions Manager)
- Crew and onshore staff trainings and seminars on fuel efficiency
- Certification of management systems (e.g., ISO 50001, SEEMP)

