



# EEDI - IMO Energy Efficiency Design Index

Verification of your environmental performance

## Energy efficient ship design

DNV supports ship owners and shipyards to verify the Energy Efficiency Design Index (EEDI) for new ships. The implementation and verification of the EEDI ensures the early compliance with the upcoming IMO EEDI Requirements.



## Establish EEDI into your design process today

**What:** The IMO Energy Efficiency Design Index is a benchmarking scheme and an indication of a merchant ship's CO<sub>2</sub> output in relation to its value for society. This is one of the first steps of IMO's technical measures to reduce CO<sub>2</sub> emissions from shipping. The EEDI compares theoretical CO<sub>2</sub> emissions and transport work of a vessel and will eventually be benchmarked against an IMO-set requirement.

**Who:** DNV provides you with a third party verification of your ships design CO<sub>2</sub> emission in accordance with the IMO Interim Guidelines (MEPC.1/Circ682). The verification is based upon a technical file and an initial survey onboard the ship.

**Where:** The EEDI can be calculated and verified for all new ships of the ship type categories as listed in the table below.

The calculations will be based on the ship main characteristics and engine performance also with the design speed-power curve adjusted with the sea trial data provided by the builder.

**Why:** The purpose of the EEDI is to establish the minimum efficiency of new ships depending on ship type and size, provide a fair basis for comparison and to stipulate the development of more efficient ships in general.

Verification of EEDI is voluntary today but is expected to be mandatory in (near) future (MEPC.61).

**When:** Tentative entry into force dates and reduction rates for the ship type segments covered by the EEDI:

Reduction factors (in percentage) for the EEDI relative to the reference line for each ship type.					
	Size	Phase 0 1 Jan 2013 – 31 Dec 2014	Phase 1 1 Jan 2015 – 31 Dec 2019	Phase 2 1 Jan 2020 – 31 Dec 2024	Phase 3 1 Jan 2025 onwards
Bulk Carrier	>20,000 DWT	0	10	20	30
	10-20,000 DWT	n/a	0-10*	0-20*	0-30*
Gas tanker	>10,000 DWT	0	10	20	30
	2-10,000 DWT	n/a	0-10*	0-20*	0-30*
Tanker	>20,000 DWT	0	10	20	30
	4-20,000 DWT	n/a	0-10*	0-20*	0-30*
Container ship	>15,000 DWT	0	10	20	30
	10-15,000 DWT	n/a	0-10*	0-20*	0-30*
General Cargo ships	>15,000 DWT	0	10	20	30
	3-15,000 DWT	n/a	0-10*	0-20*	0-30*
Refrigerated cargo carrier	>5,000 DWT	0	10	20	30
	3-5,000 DWT	n/a	0-10*	0-20*	0-30*
Combination carrier	>20,000 DWT	0	10	20	30
	4-20,000 DWT	n/a	0-10*	0-20*	0-30*

\* The reduction factor is to be linearly interpolated between the two values depending on the vessel size. The lower value of the reduction factor is to be applied to the smaller ship size.

DNV provides full range of EEDI services.

For more information, please contact:  
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