EEXI – Energy Efficiency Existing Ship Index

Q&A SESSION

Q1: When will the EEXI enter into force?

ANSWER:

The EEXI was approved at MEPC 75 in November 2020 and if adopted at MEPC 76 in June 2021, will enter into force on 1 January 2023.

Q2: What will be the improvement measures for my vessel?

ANSWER:

Different improvement measures are possible, e.g.

- Engine power limitation
- Shaft power limitation
- Engine derating
- Propulsion optimization
- Energy-saving devices

Q3: Do I have a time frame for being compliant? Such as the next annual survey?

ANSWER:

The EEXI Technical File must be approved and the International Energy Efficiency Certificate re-issued by your flag administration or Recognized Organization at the first annual survey after 1 January 2023 at the latest.

Q4: Which vessels does the EEXI apply to?

ANSWER:

The EEXI must be calculated for all cargo and cruise vessels above 400 GT falling under MARPOL Annex VI. In case of non-conventional propulsion (such as diesel-electric), please see MARPOL Annex VI for further clarification.

In case of a major conversion, the EEXI must be recalculated.

A required EEXI is applicable for all cargo and cruise vessels above a certain size threshold, depending on the ship type.

Q5: Will EEXI requirements change in the near future?

ANSWER:

There will be an IMO review of the data in 2026.

Q6: Can I use any class to approve/verify the EEXI or do I need to use the vessel's class?

ANSWER:

The approval of the EEXI Technical File and the issuance of the IEEC has to be performed by the respective classification society.

Q7: What is the required EEXI which my vessels have to fulfil?

ANSWER:

The required EEXI is based on the EEDI reference lines, with the below listed reduction factors applied. This is in most cases equal to the required EEDI in Phase 2 or Phase 3.

Q8: Reduction by ship type

ANSWER:

Bulk carrier Δ15–20% by size

Tanker Δ15–20% by size

Container Δ20–50% by size

General cargo Δ30%

Gas carrier Δ20–30% by size

LNG carrier Δ30%

Reefer Δ15%

Combo Δ20%

Ro-ro/ro-pax Δ5%

Ro-ro (vehicle) Δ15%

Cruise ship Δ30%

Q9: What documents are to be submitted for class approval?

ANSWER:

You need to submit an EEXI Technical File to your classification society.

Q10: Will this approval have an impact on statutory certificates?

ANSWER:

Yes, after approval of the EEXI Technical File by the ship's classification society, the IEE Certificate will be re-issued.

Q11: What is the timeline for the re-issuance of the IEE Certificate?

ANSWER:

The IEE Certificate is re-issued with the first annual survey after 1 January 2023.

Q12: Are there certain rules or requirements by flag states or class when limiting the engine?

ANSWER:

Classification societies may have certain rules in place for engine limitation (e.g. if Ice class is applicable to your vessel).

Please check with your respective classification society individually.

Q13: What about Ice-classed vessels which have certain requirements regarding minimum speed in ice?

ANSWER:

All requirements regarding the applicable Ice class have to be considered. If it is not possible to fulfil both, Ice class and EEXI requirements, additional measures have to be considered.

Q14: How about engines which are already derated? Can this engine be limited to an even lower level?

ANSWER:

You could limit your engine, for instance for a second time, if necessary to fulfil the requirements.

Q15: Would an installation of a diesel-electric engine exempt my vessel from EEXI?

ANSWER:

Yes, except if it is an LNG carrier or cruise passenger ship.

Q16: What kind of document/proof is required after the EPL has been carried out?

ANSWER:

The following documents should be submitted:

- EPL Report (by engine manufacturer)
- Survey statement by class surveyor after EPL installation
- EPL Management Plan

Q17: May EPL lead to other operational issues such as increased vibration?

ANSWER:

Yes. In most cases, limiting the power range goes along with a limitation of the operational revolution range. The new operational revolution rate may cause resonance conditions, resulting in increased structural or machinery vibrations. Higher vibration levels may lead to crew discomfort, structural damages and machinery failure. If power limitation is realized by deactivating cylinders, this will completely change the engine's dynamics, requiring a new assessment of shaft torsional vibrations and of shipboard vibration due to changed firing frequency, as well as of modified excitation forces and moments. Please contact us again to assess the specific risk for your vessel.

Q18: What is the most favorable solution for engine optimization)?

ANSWER:

The cut-out of one turbocharger (if two or more turbochargers are installed) is a feasible measure to reduce the engine power.

Q19: Is a revised NOx Technical File required in case of a turbocharger cut-out?

ANSWER:

The NOx Technical File of the engines remains valid after a turbocharger cut-out.

Q20: What is required to verify the performance improvement of an Energy Saving Device (ESD)?

ANSWER:

It is recommended to carry out a model test to predict the performance improvement of the ESD before installation. This model test result will then be used for the calculation of the attained EEXI. The decision about the installation of an ESD should be based on a model test or CFD prediction.