

Specification

EEX Zero Carbon Freight Index

Extension of the EU ETS to maritime transport will require ship owners and operators to surrender emissions allowances for a portion of carbon emissions incurred on freight voyages that call at ports in the European Union (EU).

The new EEX Zero Carbon Freight Index calculates a synthetic FFA time-charter rate for Capesize and Panamax vessels, adjusted for the theoretical cost of carbon. Price information is taken from the highly liquid EEX Dry Freight FFA market and the EEX EUA Futures market to create a daily “Zero Carbon FFA” rate.

Freight rates are calculated as the volume-weighted average prices for the front month FFA market, based on transactions cleared at EEX during the previous trading session (T-1). The EUA price is the last available daily settlement price (DSP) for EUA front December futures, traded on EEX in the previous trading session.

Index calculation:

$$ZCFI = \frac{\sum FFA_Price \times FFA_Volume}{\sum FFA_Volume} + [(FC \times CCF) \times (EUA^{Dec} \times EURUSD)]$$

Legend:

	Description	Unit	Capesize	Panamax
FFA_	Front Month EEX FFA	USD / DAY	VWAP C5TC	VWAP P5TC
FC	Fuel Consumption	Metric Tonnes (MT) / day	60	30
CCF	Carbon Conversion Factor	MT CO ₂ / MT Heavy Fuel Oil (HFO)	3.114	3.114
EUA ^{Dec}	Front December EEX EUA Futures	EUR / MT	DSP	DSP
EURUSD	Currency conversion	1 EUR / USD	ECB	ECB

Source data:

FFA and EUA data are provided by EEX. Fuel consumption and carbon conversion factors are based on data from the International Maritime Organization (IMO) Ship Fuel Consumption Database (MEPC 76/6/1). Currency conversions are performed by using the reference rates from the European Central Bank (https://www.ecb.europa.eu/stats/policy_and_exchange_rates).

Subscriber notes:

The EEX Zero Carbon Freight Index (ZCFI) is an information product only, and can not be traded outright. Rates are published on a daily basis before 12pm Singapore time, except on clearing house (‘Target 2’) holidays. In the case of missing values due to local non-trading days in FFA and EUA markets, the last known value (T-2) will be used.

For more information about how to execute transactions in the EEX FFA and EUA markets for freight participants, please contact freight@eex.com.