

## Glossary (In alphabetical order)

### ▶ **Ballast Voyage**

Sailing to the next loading port without any cargo loaded.

---

### ▶ **Ballast Water**

Ocean water that is taken in by the vessel to maintain ideal buoyancy and control the vessel when not fully loaded with cargo. Usually, ballast water is taken on when cargo is unloaded, and is discharged when cargo is loaded.

---

### ▶ **Ethane Carriers**

Ethane is the second most abundant component of natural gas after methane. Depending on the field, ethane can comprise 5–20% of natural gas. Ethane has a heating value about 1.75 times higher per volume than methane and is a gas at standard temperature and pressure. At present, it is used mainly as a raw material for refining the important basic chemical ethylene. Ethane carriers are specialized for transporting liquefied ethane, which has been cooled to around minus 92 degrees Celsius, and equipped with reliquefaction system. LNG carriers transport cargo at minus 162 degrees, and LPG tankers transport cargo at minus 42 degrees, so ethane carriers fall somewhere between the two.

---

### ▶ **FPSO (Floating Production, Storage and Offloading system)**

A floating facility for producing oil offshore. The oil is stored in tanks in the facility and directly offloaded to tankers for direct transport to the destination.



[Offshore Business] FPSO: Cidade de Angra dos Reis MV22  
(photo: MODEC, INC.)

---

### ▶ **FSRU (Floating Storage and Re-gasification Unit)**

A floating facility for storing and regasification of LNG offshore, which is then pressurized and piped ashore. Plans to introduce FSRUs in regions around the world are making steady progress as they can be set up in less time and less cost than conventional onshore receiving terminals.



[Offshore Business] FSRU: (CG image)  
(photo: ENGIE)

---

### ▶ **Highly Stable Profits**

Profits that are fixed, from contracts of two years or more, and projected profits from highly stable business. Highly stable profits are currently provided by the following segments: Dry bulkers, Tankers, and LNG carriers/Offshore businesses under mid- and long-term contracts (two years or more), Associated businesses and Others.

---

### ▶ **Market Exposure**

Vessels operating under contracts of less than two years, which are owned or mid-and long-term chartered vessels. These vessels are subject to spot markets fluctuations.

---

### ▶ **Pool Arrangement**

Ship operators and owners pool certain ships to conduct joint operations.

---

### ▶ **Roll-on Roll-off (RoRo) Ships**

Featuring a ramp, these ships have a vehicle deck to hold trucks, trailers and other vehicles. Cranes and other loading equipment are not used in loading; instead vehicles are driven onto the ship. In general, while ferries transport passengers and personal-use automobiles in addition to freight vehicles, RoRo ships mainly transport freight vehicles.

---

### ▶ **Ton-mile**

Transporting one ton of cargo one mile. Expressing the volume of cargo calculated by multiplying transported weight and transported mile together. As opposed to just reporting cargo weight without reference to distance, ton-mile provides a complete picture of total transport activity, reflecting the demand fulfilled by vessels or other transport modes.

---

### ▶ **Yield Management**

In the containership business, this refers to a management technique to maximize profitability for the round-trip voyage of each container. Freight rates are set and sales activities conducted to maximize net proceeds (gross profits calculated by deducting direct costs from freight revenues) rather than freight rates themselves. Direct costs include loading and unloading costs, feeder costs, and the costs of returning empty containers (calculated to reflect the aspect of surplus and shortage of containers at each point).