



INTERTANKO

**TWENTY
25**

INTERTANKO GHG Benchmarking Tool – User Guide

V1 February 2025

Principles and Preamble

Objectives

INTERTANKO's GHG Benchmarking tool is designed to provide Members who submit data with the means to assess the the performance of their vessels and fleets against against anonymised data from the broader Membership. By contributing data, the Members may gain access to valuable insights that can enhance both operational and strategic decision-making.

Access to the application

Access to the GHG Benchmarking tool is solely granted to individuals associated with INTERTANKO Member companies. The Member company name associated with the user account will correspond directly with that entered in INTERTANKO's Membership database.

The access to the GHG Benchmarking tool is provided as a Single Sign On (SSO) approach through the INTERTANKO website (<https://www.INTERTANKO.com/benchmarking-databases>). Once you are there, you can request access to the GHG Benchmarking tool (Figure 1) and the Secretariat will verify the identity of the requester prior to granting the access to the application.



Figure 1 Access to the GHG Benchmarking tool

For more details or questions about the application, please contact the Secretariat via: ghg@INTERTANKO.com

Data upload

To simplify the process and reduce the administrative burden for Members, this application has been built using the DCS data already submitted and verified by Members to their respective ROs.

In the current version, Members can share their MRV/DCS data using any of these four methods:

- Automatically data sharing (API):
 - For Members using DNV as DCS/MRV verifiers and users of the Data Workbench platform, an API is available for data sharing from DNV to the INTERTANKO GHG Benchmarking tool.
- **Manual upload** into the GHG Benchmarking tool (see Figure 2)
 - OVD files from DNV (CSV format)
 - ERP files from ABS (Excel format)
 - INTERTANKO Data Input Form (Excel format) (can be downloaded here: <https://www.INTERTANKO.com/benchmarking-databases/bdt/ghg-toolbox>)

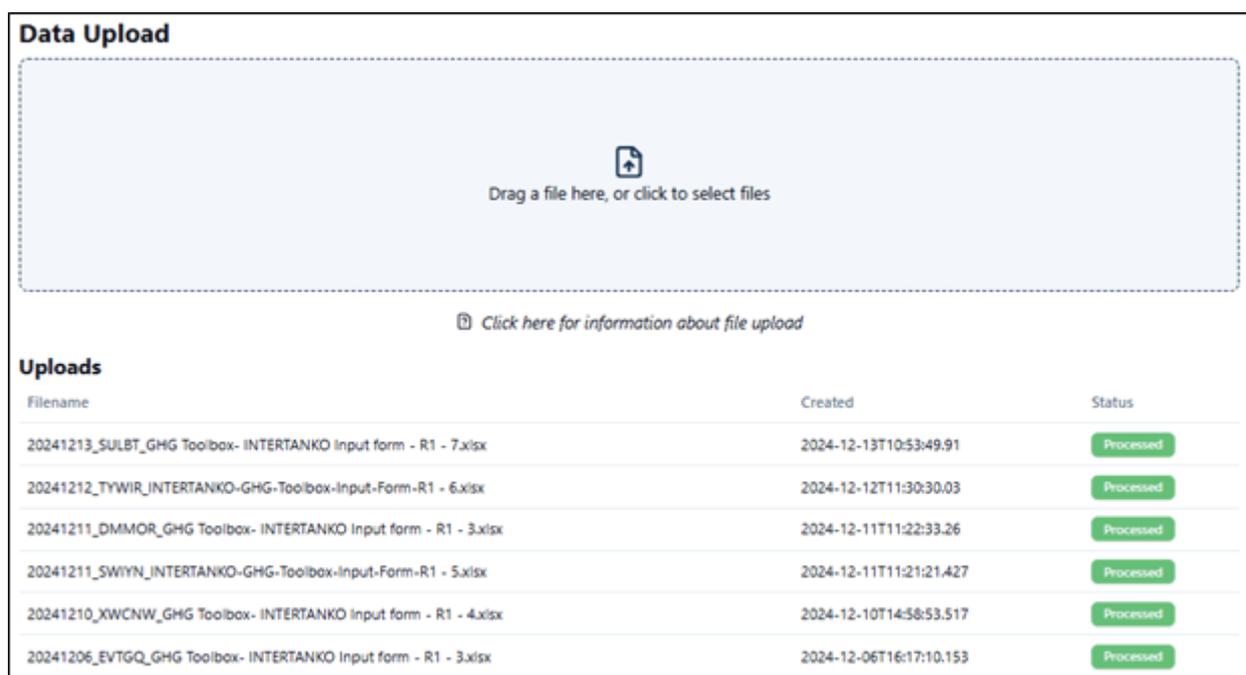


Figure 2 Data Upload through the GHG Benchmarking tool

Data can be provided in three levels of detail:

- **Event-based:** Each new event on board (e.g., Departure, Noon at Sea, At Anchorage, Arrival, etc.) is recorded as a separate entry.
- **Voyage-based:** Data is aggregated per voyage, with each voyage defined between key events (Departure-Arrival-Departure).
- **Annual data:** Aggregated data for each ship provided on an annual basis.

Note: Ships with annual-only data will have limited access to certain analysis features.

When a Member is requesting access to the application for the first time and there is no data uploaded for their ships, the GHG Benchmarking tool will show all the tables and graphs empty. To upload DCS data, the User simply needs to click on “Utilities/Data Upload” in the application (see Figure 3) or enable the API transfer from DNV Data Workbench if applicable.

To allow to the application to benchmark data properly, it is essential that the data uploaded contains the IMO number of each ship. This is the key field used for further automatic categorisation in the backend of the application.

GHG Benchmarking tool – walk-through for the application

The application focuses on benchmarking users' ships against the anonymised INTERTANKO pool. It features three main dashboards (Overview, Benchmark, and Utilities) and offers multiple filtering options to maximise insights from the collected data. The following subsections describe each filter and view in detail.

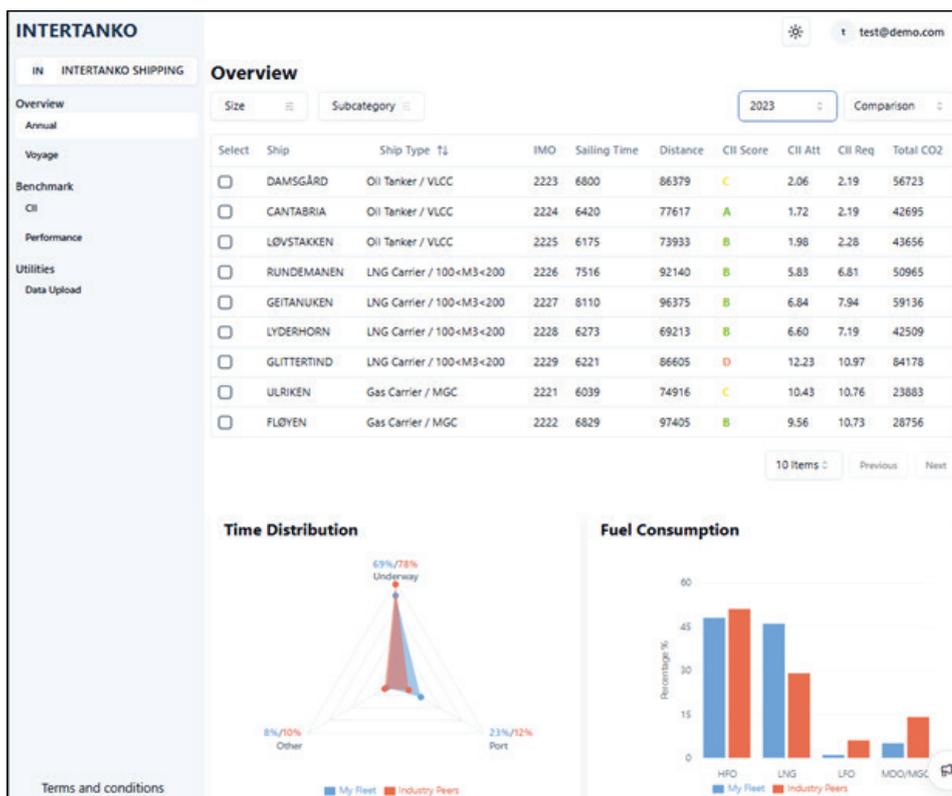


Figure 3 Landing page of the GHG Application

Available filters

The application allows users to perform several benchmarking activities of their ships with different filtering capabilities that will enhance the data analysis. The filtering options available are:

- **Size filter¹**: This filter automatically categorises tankers by type (e.g., Oil Tanker, Oil Products/Chemical Tanker, Chemical Tanker, Gas Carrier, LNG Carrier) and by size category (e.g., VLCC, MR2, VLGC). While size categories typically cover a wide range, which may bias the analysis, the GHG Benchmarking Tool allows users to narrow the size range for more precise insights, as shown in Figure 3:

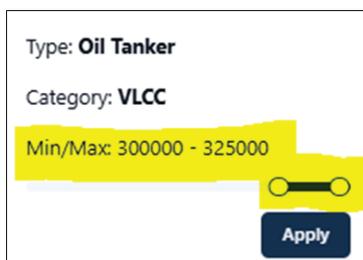


Figure 4 Ship's capacity min/max values filters

¹ Oil tanker, Product/Chemical tankers and Chemical tankers uses the Deadweight to define the "Size category". LNG carriers and Gas carriers use the cargo capacity (cubic meters) to define the "Size category".

- **Subcategory filter:** This filter allows to the user to do the benchmark with a more reduced dataset, filtering by vessel’s subgroups (i.e. Shuttle tankers or FSRU) and considering technical characteristics, such as propulsion systems. These possibilities for this filter are:
 - **For Oil Tankers:** Shuttle Tankers // Asphalt/Bitumen // FSO // FPSO // Bunkering vessel // Storage vessel
 - **For Gas Carriers:** CO₂ Carrier // LNG/LPG Carrier // Storage vessel // Fully refrigerated // Semi-refrigerated // Pressurised
 - **For LNG carriers:** Bunkering // FSRU // Storage vessel // Powered by Steam Turbine // Powered by 4-stroke Diesel Engines // Powered by 2-stroke Diesel Engines // Powered by DFDE/TFDE // Powered by two-stroke Dual engines high pressure (MEGI) // Powered by two-stroke Dual engines low pressure (XDF/MEGA)
 - **For Chemical tankers:** IMO Type 1 // IMO Type 2 // IMO Type 3
- **Year Filter:** Users can select the required year for data display and benchmarking (see Figure 5).

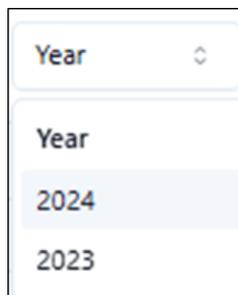


Figure 5 Year filter

- **Phase Filter:** This filter enables users to view and benchmark ship data for all submitted data or specific voyage phases/conditions, such as ballast, laden, at sea (ballast), at sea (laden), or at sea (all). Options vary between the "Voyage" view (see Figure 6) and the "CII" and "Performance" views (see Figure 7).

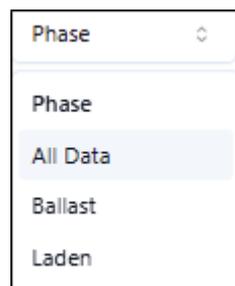


Figure 6 Phase filter under Voyage View

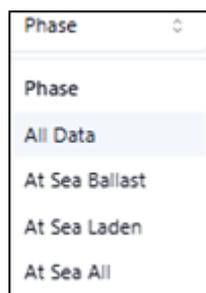


Figure 7 Phase filter under CII and Performance views

- Age filter: Users can compare their selected ship against others based on age. Five age categories are available, as shown in Figure 8.



Figure 8 Age Filter

- **Comparison Filter:** Users can choose the benchmark basis, either industry peers (ships within the same tanker type, size, and selected subcategory) or their own fleet as shown in the Figure 9. By default, benchmarking is set against industry peers.



Figure 9 Comparison filter

Dashboards – Overview

The Overview Dashboard serves as the landing page for users upon login and is divided into two sub-menus: Annual and Voyage.

In the Annual view (see Figure 10), users can access yearly aggregated data for their ships and perform benchmarking against the broader INTERTANKO community on an annual basis. By selecting a specific ship, the graphs and data automatically update, providing comparisons with either industry peers or the user's company fleet, depending on the chosen filters. This view displays metrics such as sailing time, distance sailed, attained and required CII scores, total CO₂ emissions (excluding any deductions), total fuel consumption at port and at sea, and the distribution of time and fuel usage. This comprehensive visualisation helps users gain deeper insights into their fleet's performance relative to the industry.

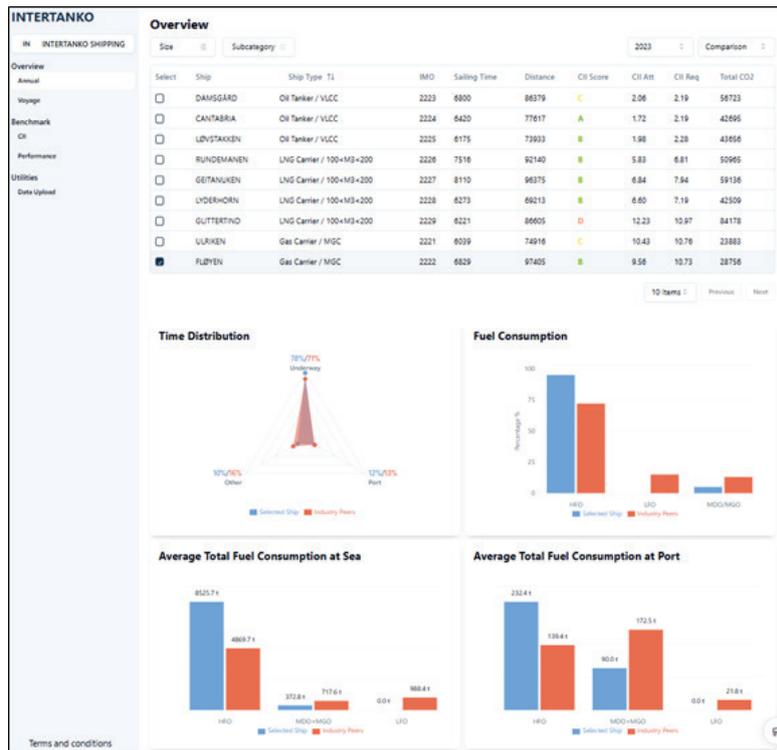


Figure 10 Overview – Annual view

In the "Voyage" sub-menu (see Figure 11), users must first select the vessel they wish to analyse, either in comparison with their fleet or with industry peers. Once a ship is selected, a table displaying a list of voyages performed by that ship during the chosen year will appear. Each row in the table provides details about the cargo condition (ballast or laden), distance sailed, time spent at sea, in port, or in other activities, as well as the CII attained and required for each voyage and total CO₂ emissions. Below the table, users can access voyage-based benchmarking, including metrics such as average time spent at sea, in port, or in other activities, time distribution, fuel consumption at sea and in port, average distance per voyage, and average speed.

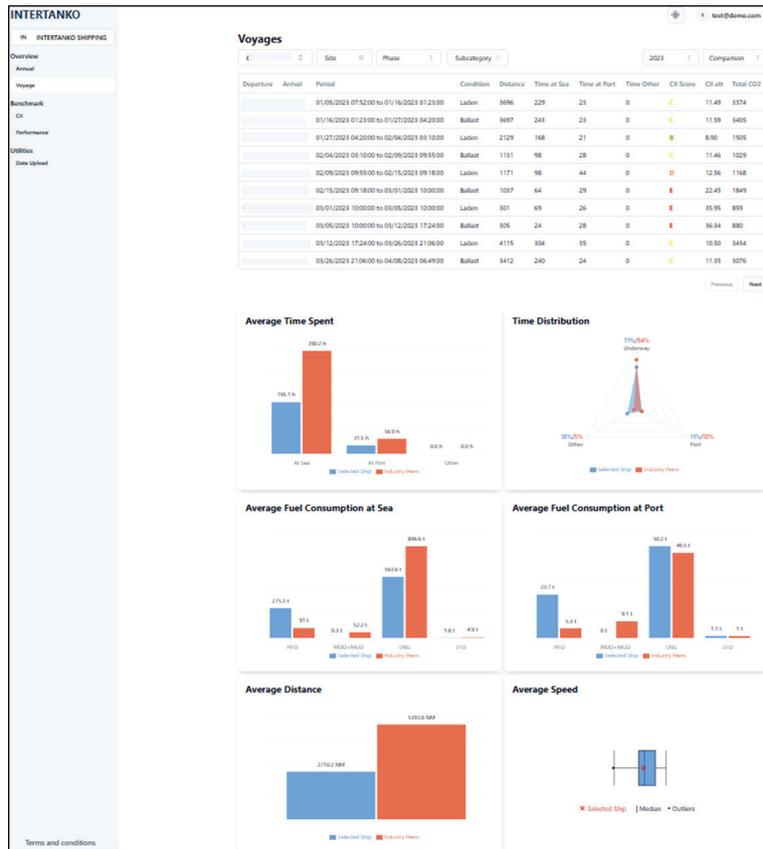


Figure 11 Overview – Voyage view

Dashboards – Benchmark

The next dashboard, Benchmark, is designed to provide comprehensive benchmarking capabilities using the data collected. It is divided into two sub-menus: CII and Performance.

The CII view (see Figure 12) focuses on benchmarking each ship's individual CII and related metrics against industry peers. Users can track how the selected ship's CII evolves throughout the year and compare it to her peers in the industry. A chart displays the percentage of peer vessels within each CII rating category (A to E) for the selected year. Additionally, this view provides benchmarking insights into metrics related to the CII, including CO₂ emissions at port and sea, time distribution across different voyage phases, total fuel consumption, and total distance sailed.

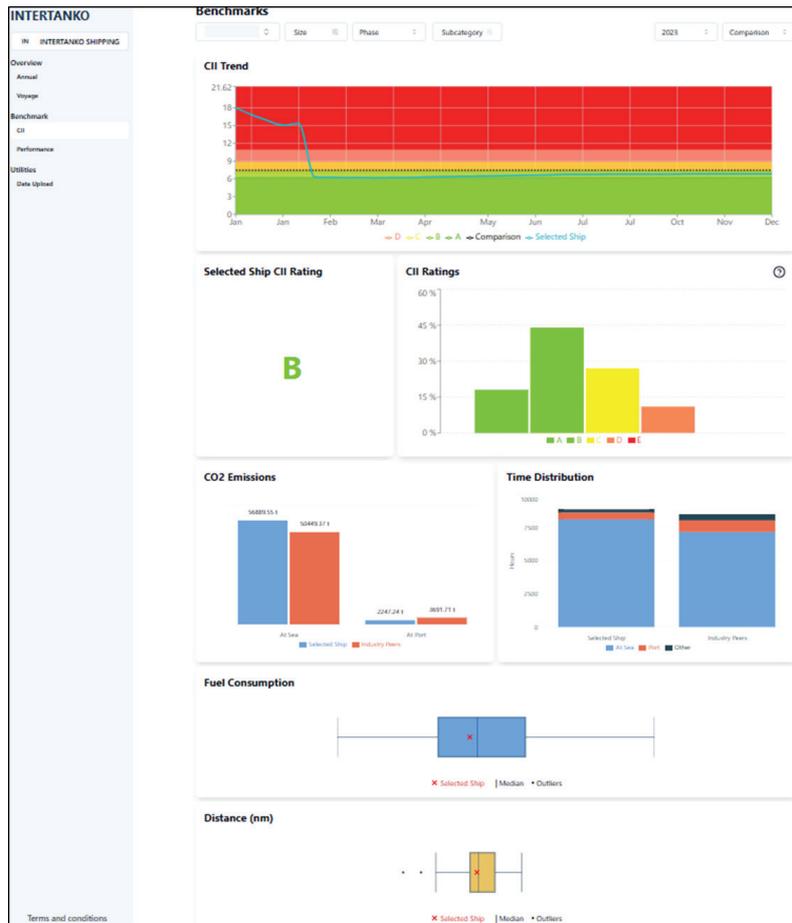


Figure 12 Benchmark – CII view

In the performance view (see Figure 13), the benchmark focuses on various performance metrics that provide insights into how the selected ship is performing compared to its peers. The analysis includes a histogram of speed distribution, a comparison of AER vs speed over ground (SOG), CO₂ emissions per nautical mile, CO₂ emissions per day at sea and in port, as well as total fuel consumption per year and per voyage, both at sea and in port.

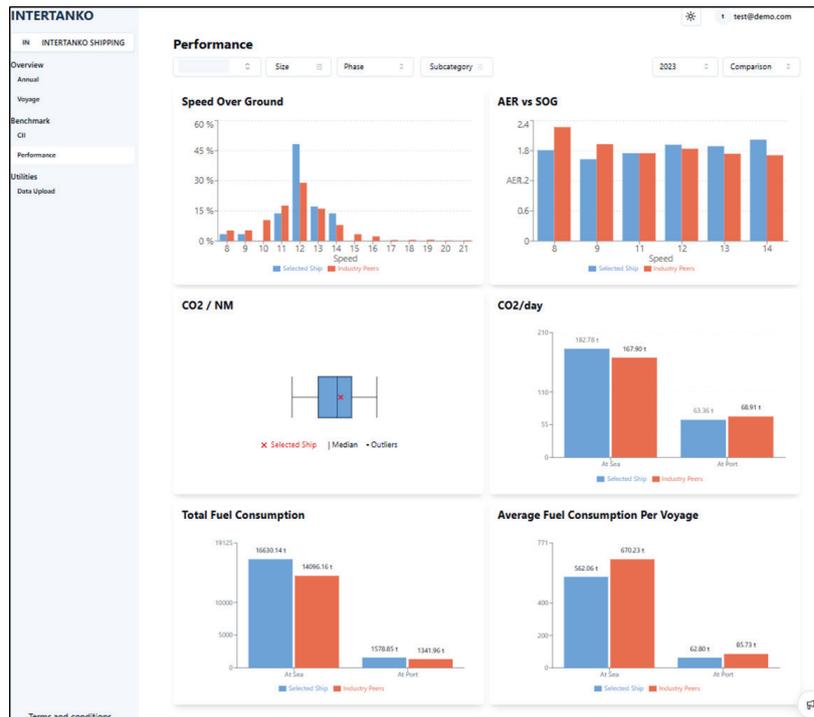


Figure 13 Benchmark – Performance view

Dashboards – Utilities

This is the dashboard (see Figure 2) where the various valid files can be uploaded into the application (see Figure 14). It is recommended to upload the data at least once per year, using the verified DCS/MRV data from the previous year. The data ingestion process takes approximately 24 hours to complete and make the data visible in the application.

File Upload Information

Currently, three different templates can be uploaded:

- OVD files from DNV in CSV format
- ERP files from ABS in Excel format. The ERP files must contain the following standard tabs: VESSEL, VOYAGE
- INTERTANKO Data input form in Excel format

The files can include ship information at three different levels of granularity:

- **Event-based:** One row of data is recorded for each new event on board (e.g., Departure, Noon at Sea, At Anchorage, Arrival, etc.)
- **Voyage-based:** Voyage-based: Data is aggregated per voyage, where each voyage is defined between events (Departure-Arrival-Departure)
- **Annual data*:** Data for each ship is provided as an annual aggregate

**Note: If the data is provided only in annual aggregates, certain analysis features will not be available for those ships.*

Close

Figure 14 Data Upload – Valid files

Summary

Thank you for using INTERTANKO's GHG Benchmarking Tool. With this resource, you now have access to valuable insights to assess and improve the performance of your vessels and fleets in comparison to anonymised data from other Members. We hope the tool's features will help you make more informed operational and strategic decisions.

Additional Resources

If you need further information or want to explore more about using the application, you can visit the following links:

- Official GHG Benchmarking Tool page: <https://www.INTERTANKO.com/benchmarking-databases>
- Data upload form: <https://www.INTERTANKO.com/benchmarking-databases/bdt/ghg-toolbox>

Support and Contact

If you have any additional questions or need technical assistance, please feel free to contact the INTERTANKO support team:

- Email: ghg@INTERTANKO.com

Our team is ready to assist you with any queries related to using the tool.

Future Updates

Please note that the tool is continuously evolving. Stay updated on new features and improvements through future updates from INTERTANKO.

INTERTANKO London
St Clare House
30-33 Minories
London EC3N 1DD
United Kingdom
Tel: +44 20 7977 7010
Fax: +44 20 7977 7011
london@intertanko.com

INTERTANKO Oslo
PO Box 761 Sentrum
N-0106 Oslo
Norway
Tel: +47 22 12 26 40
oslo@intertanko.com

INTERTANKO Asia
70 Shenton Way
#20-04 Eon Shenton
Singapore 079118
Tel: +65 6333 4007
singapore@intertanko.com

INTERTANKO North America
801 North Quincy Street – Suite 500
Arlington, VA 22203
USA
Tel: +1 703 373 2269
washington@intertanko.com

INTERTANKO Athens
Spaces Bldg, 5th Floor
Ermou 56
Athens 10 563
Greece
Tel: +30 218 219 0430/0431
athens@intertanko.com

www.intertanko.com



INTERTANKO