



Circular: improvement to Netbacks calculations and historical data

Date: 27th September 2024

14th October 2024: minor adjustments to implementation dates for historical data recalculation.

The below details relate to netback calculations and related tools, and are not applicable to the Spark Freight or SparkNWE and SWE benchmarks.

Following market feedback on the most accurate assumptions to track physical cargo netback prices from Northeast Asia and Northwest Europe to global FOB locations, this circular is notification that Spark will introduce the following improvements, alongside the recent changes to update the [discharge volume and hire cost assumptions for \\$/MMBtu calculations](#).

1. Update the fuel cost calculations to account for fuel costs entirely within the Volume Adjustment component
2. Addition of the ability to specify a % of Freight Hire Included/Sunk within the Netbacks tool.
3. Recalculate the historical data for the Netbacks and Routes tools with the modified calculations to enable meaningful historical analysis.

The implementation date for the updated fuel cost calculations will be 30th September 2024.

The implementation date for the introduction of the % of Freight Hire Included option will be 14th October 2024.

The implementation date for the initial historical recalculation will be 21st October 2024 covering data back to release date 2/1/2024. The remaining historical data will be backfilled in stages over the following weeks pending successful testing. Certain routes and netbacks will be prioritised based on customer feedback. Please contact commercial@sparkcommodities.com to request prioritisation of specific historical data.

1. Update the fuel cost calculations

Within Spark Netbacks, Spark assumes the freight laden voyage from FOB location to NEA or NWE DES is on boil-off gas and the final discharge volume leaves a heel of boil-off for the ballast leg plus 1,000 m³. Spark accounts for the difference between the loaded and discharge volume via the Volume Adjustment component:

- Volume Adjustment = $((\text{Discharge Volume}/\text{Load Volume}) - 1) * (\text{DES} - \text{Route Freight Cost})$

The difference between loaded and discharge volume accounts for both the laden fuel from boil-off and the ballast fuel which remained in vessel after discharge. As such the Freight component used in Spark netbacks will include Hire cost, Carbon Costs (if applicable), Port costs, Congestion costs (if applicable), Canal costs (if applicable) but Fuel Costs will be removed.



2. Addition of the ability to specify a % of Freight Hire Included within the Netbacks tool

Spark intends to add a new user input **% of Freight Hire Included** to the Spark Netbacks tool. This is following market feedback that understanding the impact of sunk freight assumptions is a common practice within Netback analysis.

Spark defines this input as follows:

- % of Freight Hire Included: % of Freight Hire Cost to be included within the NWE/NEA Route Freight Rate.

To account for both (1) and (2) above, the Netbacks methodology for the Freight component will be updated to the below:

- NWE/NEA Route Freight Cost: Spark \$/MMBtu Routes forward rates for NWE/NEA Route, which include Hire cost **multiplied by the % of Freight Hire Included**, Carbon Costs (if applicable), Port costs, Congestion costs (if applicable), Canal costs (if applicable) **but not Fuel Costs, which are accounted for within the Volume Adjustment**. For full details see the Routes Methodology on the Spark LNG Freight platform. Spark Routes curves are based on fixture dates for delivery of vessel 15-45 days later, and therefore FOB loading months are assumed to be the month following the fixing month.

3. Recalculate the historical data for the Netbacks and Routes tools

Given the recent updates to the discharge volume and hire cost assumptions for \$/MMBtu calculations, and the planned improvement above, Spark intends to recalculate the historical data for the Netbacks and Routes tools.

The benefits of the historical recalculation include:

- Consistent methodology that better reflects LNG pricing applied to historical time series allowing meaningful historical analysis
- Extension of historical time series further back where possible allowing longer time series than in the existing dataset
- Availability of % of Freight Hire Included analysis across historical dataset.
- Spark to add Euro/MWh conversions of historical datasets not currently available

What will Change?

Historical recalculation only applies to some of Spark's derived calculations in its tools. None of the methodologies have changed for the core underlying assessments (Spark benchmark \$/day Freight assessments and Spark Benchmark \$/MMBtu LNG Cargo data).

The tools data series that will have the new methodology applied to historical data points and extended further back where possible include:

- Spark Routes
- Netbacks (Spark Routes Components)
- Arb Breakevens (Spark Routes Components)
- Netforwards (Spark Routes Components)
- FOB Hub Netbacks (Spark Routes Components)



Methodologies with worked examples for Routes, Netbacks, Arb Breakevens, Notforwards can be found via the 'Methodology' icons on the Spark Platform.

Spark will provide the previous datasets on a case by case basis, and can be requested from commercial@sparkcommodities.com.