

**INDEX DESCRIPTION**

This index is a notional price reference for blue hydrogen in Tokyo, calculated utilising exchange-based natural gas prices and day ahead grid electricity prices, as well as cost assumptions for other inputs into the hydrogen production process.

INDEX DETAILS

| | |
|------------------|--------------------------|
| Start date | 04-May-2022 |
| Commodity | Hydrogen |
| Frequency | Daily |
| CCY / UOM | USD / KG |
| Precision | 2 decimal places |
| Periods | 1,Month |
| Data types | Index |
| Pricing basis | Flat |
| Delivery basis | ExWorks |
| Trading hub | North Asia |
| Timezone | Asia/Singapore |
| Holiday calendar | Holidays_GX_NorthAmerica |

INDEX QUALITY SPECIFICATION

This index reflects the production cost of blue hydrogen, based on Steam Methane Reforming (SMR) production and methyl diethanolamine (MDEA) carbon capture technology.

CRITERIA FOR INCLUSION

Index calculation inputs comprise:

- Japanese natural gas pricing
- Tokyo Day Ahead electricity pricing
- FX rates (EUR/USD and EUR/JPY)

The following are all quarterly updated variables:

- Costs and volume assumptions for nitrogen, ammonia, process water and demineralised water
- Conversion energy, compression power and plant power cost assumptions
- CO2 capture electrical energy and CO2 capture thermal energy assumptions
- Capital recovery, fixed costs, and operating and maintenance cost assumptions

ASSESSMENT TIMES

| TIME | DETAILS |
|------|-----------------|
| 1730 | Singapore Close |

CALCULATION APPROACH

| TRADE DATA APPROACH | Y/N |
|--|-----|
| Priority to reported and concluded transactions | N |
| Sole-sourced data from trading principals accepted | N |
| Inter-affiliate data accepted as valid | N |

See flowchart on next page.

LOCATION**FACTSHEET INFORMATION**

| | |
|----------------------|-------------|
| Factsheet version | 1 |
| Factsheet valid from | 04-May-2022 |
| Factsheet valid to | (ongoing) |
| Factsheet review at | 2024-01-12 |



GX0010509: BLUE HYDROGEN JAPAN

