

## **LNG Assessment Methodology**

RIM LNG Daily assessment follows as below.

(Assessment Window)

From 17 hours Tokyo time of the previous business day and to 17 hours Tokyo time of the designated assessment day.

(Assessment Method)

RIM assesses market prices by taking dealt deals reported and bids/offers indicated during the above time window and other factors such as supply/demand condition and prioritizing the most updated deals and bids/offers.

### **1. Northeast Asia (DES)**

(Cargoes to be assessed)

Prices are based on values of cargoes to be discharged in Japan, South Korea, Taiwan, and China for the designated delivery period.

(Delivery period to be assessed)

Three half months or 30-45 days, 46-60 days, and 61-75 days ahead of the current business day.

(Volume)

RIM assesses the price of a cargo containing around 60,000 tons in the conventional 135,000-cubic meters LNG tanker. RIM also takes prices of cargoes loaded into the relatively large Q-Flex and Q-Max, and relatively small vessels into account.

(RIM North Asia Index)

RIM announces a monthly cumulative average price of the above three delivery periods, so called "RIM North Asia Index". For instance, RIM announces the average from 1<sup>st</sup> to 20th on 20th of the month.

### **2. Middle East (FOB)**

(Cargoes to be assessed)

Prices are based on values of cargoes to be loaded in Abu Dhabi, Qatar, Oman, and Yemen for the designated loading period.

(Loading and volume)

The same as for DES Northeast Asia.

### 3. DES Europe (DES) on June 16 and beyond

(Cargoes to be assessed)

Prices are based on values of cargoes to be delivered to Britain, France, Belgium, Spain and Portugal for the designated delivery window. RIM also considers values of cargoes to be delivered at ports other than the above countries in Europe.

(Fixed and Market-linked price assessment)

RIM assesses DES Europe prices based on fixed price discussion as well as the premium/discount levels to the British NBP (National Balancing Point) futures. In the case of the latter, RIM assesses the fixed price by adjusting a premium or discount from the previous business day's NBP.

(Loading period and volume)

The same as for DES Northeast Asia.

### 4. Freight Market

(Freight to be assessed)

RIM assesses spot freight rates for Middle East-Northeast Asia, Atlantic-Northeast Asia, and Middle East-Europe on conventional size 135,000-cubic meters LNG tanker. RIM also considers freight rates of Q-Flex, Q-Max, and relatively small vessels.

RIM sets voyage days as follows.

- (a) 30 days for a Middle East-Northeast Asia route
- (b) 54 days for an Atlantic-Northeast Asia route
- (c) 22 days for a Middle East-Europe route

RIM sets the loading as well discharge ports as follows.

- (a) the Middle East = Abu Dhabi, Qatar, Oman, and Yemen
- (b) Northeast Asia = Japan, South Korea, Taiwan, and China
- (c) Europe = Britain, France, Spain, Belgium, and Portugal
- (d) the Atlantic = Trinidad and Tobago, Nigeria, and Equatorial Guinea

(Factors that include in freight assessment)

RIM considers spot chartering rate, fuel cost, boil off, and port charge at the loading and discharge ports to determine freight rates. In case of a Middle East-Europe route, RIM includes a Suez Canal charge.

### 5. JCC Price (Japan Crude Cocktail Price)

--- RIM forecasts the JCC price using Dubai crude as a base. The import prices of other crude are determined based on their differential to Dubai crude.

--- The JCC price forecast includes freight and insurance.