

July 2023

Japan Spark Spreads FAQ

What is the Platts Japan Tokyo Baseload spark spread?

Spark spreads are typically the difference between the price received by a utility for electricity produced and the cost of the natural gas needed to produce that electricity. Platts calculates the Japan Tokyo Baseload spark spread assessments as the Japanese power futures (Tokyo, Baseload) settlement prices published by EEX minus the Platts JKM LNG derivatives price assessments for the same period, taking into account various costs and efficiency factors in the final value.

How is the spark spread calculated?

Platts uses the following formula:

$$\text{Spark spread (\$/MMBtu, Yen/kWh)} = \frac{\text{Electricity price published by EEX} - (\text{JKM} + \text{Petroleum and Coal tax} + \text{Regasification cost})}{\text{thermal efficiency}}$$

Petroleum and Coal tax was Yen 1,860/mt as of June 1, 2023.

Regasification cost for a typical Japan LNG terminal is considered to be \$0.50/MMBtu.

Thermal efficiency is assumed to be 50%.

Why are spark spreads important?

Spark spread assessments represent the gross margin for power utilities that use natural gas, or regasified LNG, to generate electricity. It is an indicator for the profitability of operating gas-fired power plants.

As a result of the move towards liberalization in the power industry in Japan, more companies are entering the power market and competition is increasing. Cost-conscious power companies and trading houses are analyzing spark spreads to gain better understanding of market fundamentals and likely outcomes.

The trading volume in the power futures market is also growing. Trading of Japanese power futures hit a record high in 2022, with 2023 volumes growing still further in the first half of the year.

Japan's overall power generation was ranked the fifth largest globally in 2021. Japan's power futures market has the potential to grow in terms of scale and sophistication. The market is expected to expand further.

What delivery periods do the Platts Japan Tokyo Baseload spark spread reflect?

Platts Japan Spark Spread assessments represent the gross margin for Japanese power utilities that use regasified LNG to generate electricity, for the JKM pricing month, next three months forward, the next two active quarters following the JKM pricing month, and the next active season following the JKM pricing month.

For example, on June 1, 2023, Platts publishes spark spread price assessments for July, August, September and October, Q4 2023, Q1 2024 and Winter 2023. The spark spread assessments roll when the JKM pricing month rolls, i.e., the monthly spark spread rolls on the 16th day of every month or the nearest subsequent business day, quarterly spark spread rolls on February 16, May 16, August 16, and November 16 or the nearest subsequent business days respectively, seasonal spark spread rolls on February 16 and August 16 or the nearest subsequent business days respectively.

Where are Platts Japan Spark Spread price assessments published?

Platts Tokyo Baseload Spark Spread price assessments are published in Platts LNG Daily, on Platts Dimension Pro, as well as the LNG and PGN alert service lines on page number 0016.

The relevant assessment symbols are:

ATOKA00 LNG JKM Tokyo Baseload Spark Spread Pricing Month \$/MMBtu

ATYOA00 LNG JKM Tokyo Baseload Spark Spread Pricing Month Yen/kWh

ATOKM01 LNG JKM Tokyo Baseload Spark Spread Mo01 \$/MMBtu

ATYOM01 LNG JKM Tokyo Baseload Spark Spread Mo01 Yen/kWh

ATOKM02 LNG JKM Tokyo Baseload Spark Spread Pricing Mo02 \$/MMBtu

ATYOM02 LNG JKM Tokyo Baseload Spark Spread Pricing Mo02 Yen/kWh

ATOKM03 LNG JKM Tokyo Baseload Spark Spread Pricing
Mo03 \$/MMBtu

ATYOM03 LNG JKM Tokyo Baseload Spark Spread Pricing
Mo03 Yen/kWh

ATOKQ01 LNG JKM Tokyo Baseload Spark Spread Pricing Q1
\$/MMBtu

ATYOQ01 LNG JKM Tokyo Baseload Spark Spread Pricing Q1
Yen/kWh

ATOKQ02 LNG JKM Tokyo Baseload Spark Spread Pricing
Q2 \$/MMBtu

ATYOQ02 LNG JKM Tokyo Baseload Spark Spread Pricing
Q2 Yen/kWh

ATOKSSN LNG JKM Tokyo Baseload Spark Spread Pricing
Season \$/MMBtu

ATYOSSN LNG JKM Tokyo Baseload Spark Spread Pricing
Season Yen/kWh

How can I find out more about these price assessments?

You can consult the methodology document:

<https://www.spglobal.com/commodityinsights/en/our-methodology/methodology-specifications/lng/liquefied-natural-gas-lng-assessments-and-netbacks-methodology>

If you would like to provide feedback or seek further information, please contact:

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Will Platts consider launching spark spreads for other Japan power contracts, as well as for other markets?

Platts is evaluating industry need and interest in expanding the spark spread assessments suite for Japan, as well as other regional markets.

Platts welcomes comments feedback and further market information on this.

Platts

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