



ICE FUTURES EUROPE & ICE ENDEX  
**TRADE AT SETTLEMENT**  
NATURAL GAS FUTURES

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# TRADE AT SETTLEMENT

ICE supports the Trade At Settlement (“TAS”) order type for the ICE Endex Dutch TTF Gas Futures and the ICE Futures Europe UK Natural Gas Futures. This document is meant to provide information concerning the TAS order type.

## WHAT IS TAS?

Trade At Settlement or TAS is an order type that allows a trader to enter an order to buy or sell futures contracts during the course of the trading day at a price equal to the yet-to-be determined settlement price for that contract, or at a price up to five ticks (minimum price fluctuations) above or below that price.

TAS buy and sell orders are matched on a first-in, first-out basis. After a TAS trade is matched, each TAS transaction receives a trade price equal to, or up to five ticks above or below, the Exchange’s daily settlement price for the respective futures contract month. The TAS capability supports the front three contracts months of the Dutch TTF Gas futures and UK Natural Gas Futures. The TAS order type provides a simple way to balance a portfolio at the settlement price.

## ARE THERE RESTRICTIONS ON WHO IS ELIGIBLE TO EXECUTE TAS TRADES?

Clients with access to the Dutch TTF Gas futures or UK Natural Gas Futures markets will automatically have access to the TAS order type for the related market.

## WHAT IS THE POLICY REGARDING TAS CLEARING LIMITS?

TAS orders and trades share the existing clearing limits for the related futures product

## WHERE CAN I FIND THE TAS PRODUCTS IN WEBICE?

In WebICE the TAS products will automatically appear in portfolios which contain the front month’s contract of the related futures contract. Users can also create a new portfolio containing the Dutch TTF Gas TAS product, the UK Natural Gas TAS product or add it to an existing portfolio in WebICE.

## WHEN CAN TAS ORDERS BE ENTERED?

Dutch TTF Gas TAS buy and sell orders may be entered from the start of the pre-open period for the Dutch TTF Gas futures market at 07:45 CET/CEST until the start of the futures contract settlement window at approximately 17:00 hours CET/CEST.

UK Natural Gas Futures TAS buy and sell orders may be entered from the start of the pre-open period for the UK Natural Gas Futures market at 06:45 GMT/BST until the start of the settlement period at approximately 16:00 hours GMT/BST.

TAS orders may not be entered after the start of the futures contract settlement window and resting orders will be cancelled.

## WHAT DO TAS ORDERS REPRESENT?

The number in the BID and OFFER column of WebICE represent the price by which the Dutch TTF Gas Futures contract and the UK Natural Gas Futures contract will be adjusted above (+) or below (-) the yet-to-be determined settlement price. TAS 0 (zero) indicates that the respective contract will be priced at the settlement price.

Table 1 below shows the value of the TAS price ticks for the ICE Endex Dutch TTF Gas Futures and the ICE Futures Europe UK Natural Gas Futures.

TAS price ticks	Dutch TTF Gas Value (euro per MWh)	UK Natural Gas Value (pence/therm)
-5	-0.025	-0.05
-4	-0.020	-0.04
-3	-0.015	-0.03
-2	-0.010	-0.02
-1	-0.005	-0.01
0	0.000	0.00
1	0.005	0.01
2	0.010	0.02
3	0.015	0.03
4	0.020	0.04
5	0.025	0.05

Table 1. TAS price ticks

## HOW ARE TAS ORDER DISPLAYED ON WEBICE?

Figure 1 below shows bids and offers resting in the ICE Endex Dutch TTF Gas Futures and the ICE Futures Europe UK Natural Gas Futures and spread markets on our online trading platform WebICE.

CC	Product	Hub	Strip	+/-	Sell	B Qty	Bid	Offer	O Qty	Buy	Last	Change
TFM	Dutch TTF Gas Base Load TAS	TTF	Jan17	+	Hit	15	0.005	0.010	5	Lift	0.005	0.005
TFM	Dutch TTF Gas Base Load TAS	TTF	Feb17	+	Hit	15	0.000	0.005	10	Lift	0.010	0.010
TFM	Dutch TTF Gas Base Load TAS	TTF	Mar17	+	Hit	15	-0.005	0.000	5	Lift	0.005	0.005
TFM	Dutch TTF Gas Base Load TAS Spr	TTF	Jan17/Feb17	+	Hit	5	0.000	0.010	5	Lift	0.015	0.015
TFM	Dutch TTF Gas Base Load TAS Spr	TTF	Jan17/Mar17	+	Hit	5	0.005	0.010	10	Lift	0.015	0.015
TFM	Dutch TTF Gas Base Load TAS Spr	TTF	Feb17/Mar17	+	Hit						0.025	0.025
M	UK Natural Gas TAS	NBP	Jan17	+	Hit	10	0.030	0.040	5	Lift	-0.010	-0.010
M	UK Natural Gas TAS	NBP	Feb17	+	Hit	5	-0.020	-0.010	5	Lift	0.000	0.000
M	UK Natural Gas TAS	NBP	Mar17	+	Hit	5	-0.010	0.000	5	Lift	0.000	0.000
M	UK Natural Gas TAS Spr	NBP	Jan17/Feb17	+	Hit	15	0.040	0.060	5	Lift	0.040	0.040
M	UK Natural Gas TAS Spr	NBP	Jan17/Mar17	+	Hit	5	0.030	0.050	5	Lift	0.030	0.030
M	UK Natural Gas TAS Spr	NBP	Feb17/Mar17	+	Hit	15	-0.020	0.000	20	Lift	0.000	0.000

Fig 1. TTF and NBP TAS on WebICE.

## WHEN ARE CONFIRMATIONS RECEIVED FOR TAS TRADES?

TAS buy and sell orders are matched on a first-in, first-out basis. TAS trades are confirmed when TAS bids and offers match. A confirmation of a TAS trade indicates that a trade has been executed at the settlement price (0), or at the agreed tick interval above or below the settlement price.

### *EXAMPLE - TTF TAS 0.000 (EURO PER MWH)*

A Dutch TTF TAS Nov16 is Traded at 0.000 (TAS flat). At around 17:15 hours CET/CEST the Nov16 settlement price is set at 16.760 euro/MW. The Nov16 leg of the TAS trade will be priced at 16.760 euro/MW.

### *EXAMPLE - TTF TAS 0.010 (EURO PER MWH)*

A Dutch TTF TAS Nov16 is Traded at 0.010. At around 17:15 hours CET/CEST the Nov16 settlement price is set at 16.760 euro/MW. The Nov16 leg of the TAS trade will be priced at 16.770 euro/MW (16.760 + 0.010).

### *Example - NBP TAS -0.03 (pence/therm)*

A UK Natural Gas TAS Dec16 is traded at -0.03. At around 16:15 hours GMT/BST the Dec16 settlement price is set at 30.130 pence/therm. The Dec16 leg of the TAS trade will be priced at 30.100 pence/therm (30.130 - 0.03).

## WHICH CONTRACT MONTHS ARE ELIGIBLE FOR TAS TRADING?

TAS is available for the front three contract months of the ICE Endex Dutch TTF Gas Futures and the ICE Futures Europe UK Natural Gas Futures.

## WHAT SPREAD PAIRS ARE ELIGIBLE FOR TAS TRADING?

TAS (time) spread trading is enabled for front three contract months; the front month vs. the second month, the front month vs. the third month, and the second month vs. the third month.

## AT WHAT PRICES CAN TAS SPREADS BE TRADED?

TAS (time) spread trades are executed at the spread differential between the daily settlement prices for the respective futures contract months (TAS 0), or up to five ticks above and below that spread differential.

## WHAT IS THE SPREAD CONVENTION FOR TAS SPREADS?

Buying the TAS spread means buying the front month and selling the back month.

### *EXAMPLE TTF TAS*

Buying the Dutch TTF Gas Futures TAS Spread - Nov16/Dec16 means buying Nov16 and selling Dec16 Dutch TTF Gas Futures.

#### *EXAMPLE NBP TAS*

Selling the UK Natural Gas TAS Spread - Nov16/Jan17 means selling Nov16 and buying Jan17 UK Natural Gas TAS.

### **HOW ARE TAS SPREAD LEGS PRICED?**

Like TAS outright trades, the prices of TAS spread legs are set after the settlement prices for the respective contracts have been determined at end of the settlement window.

For TAS spreads done at a price of zero (“at the settlement difference”), each leg of the TAS is priced at the settlement price of the respective futures contract in the spread.

For TAS Spreads done at one up to five ticks above or below the settlement price, the TAS spread legs prices are set as follows:

- Front month - the price is always set at the settlement price for the respective contract;
- Back month - the price is set at the settlement price for the respective contract plus the TAS spread trade price (which can be a positive number or a negative number)

#### *EXAMPLE - TAS 0*

A TTF TAS Spread - Nov16/Dec16 is traded at 0.000 (TAS flat). At around 17:15 hours CET/CEST the Nov16 settlement price is set at 16.760 euro/MW and the Dec16 contract settles at 17.000 euro/MW.

- The Nov16 leg (front month) will be priced at 16.760 euro/MW.
- The Dec16 leg (back month) will be priced at 17.000 euro/MW (17.000 + 0.000).

#### *EXAMPLE - TTF TAS 0.005*

A TAS Spread - Nov16/Dec16 is traded at 0.005. At around 17:15 hours CET/CEST the Nov16 settlement price is set at 16.760 euro/MW and the Dec16 contract settles at 17.000 euro/MW.

- The Nov16 leg (front month) will be priced at 16.760 euro/MW.
- The Dec16 leg (back month) will be priced at 17.005 euro/MW (17.000 + 0.005).

#### *EXAMPLE - NBP TAS -0.02*

A TAS Spread - Dec16/Jan17 is traded at -0.02. At around 16:15 hours GMT/BST the Dec16 settlement price is set at 46.900 pence/therm and the Jan17 contract settles at 47.910 pence/therm.

- The Dec16 leg (front month) will be priced at 46.900 pence/therm.  
The Jan17 leg (back month) will be priced at 47.890 pence/therm (47.910- 0.02).