

Specification Update

CEGH SPOT INDEX (CEGHIX®)

The CEGHIX® is a price index based on exchange deals or orders of CEGH Gas Exchange of Vienna Stock Exchange. It is used as industry benchmark index for the CEE region and also as reference price in the trading system GlobalVision Trayport ETS® for the following exchange trading day. Please find below details about its determination and publication.

1. Publication and Data Services

The CEGHIX® will be determined and published after trading phase (i.e. the peak phase according to article 3 of the [Trading Rules of CEGH Within-Day Products](#)) on a daily basis but limited to exchange trading days on the website of CEGH Gas Exchange.

You can find the most recent publications via the following link: <http://www.cegh.at/market-data>

Exchange holidays are published at: <http://www.cegh.at/trading-calendar>

Historic market data can be ordered at: <http://www.cegh.at/data-service>

Please note, that historic data is updated on the following exchange trading day in due time before start of trading. The index is determined daily and calculated separately for each product (i.e. each delivery period) tradable on the respective exchange trading day. Cancelled trades, 'inhouse deals' and the within-day product are not taken into account.

CEGHIX® and other market data of CEGH Gas Exchange of Vienna Stock Exchange are provided by CEGH and by the commercial data product services of Wiener Börse AG. 15 minutes delayed data of the Spot and Derivatives Markets is available via the website of CEGH Gas

Exchange of Vienna Stock Exchange. Please note that this data only serves information purposes and may not be used commercially. You can also order market data in Excel format for download. To order this service please use the [respective form](#).

End-of-Day files via FTP are provided by Vienna Stock Exchange after the trading day. Real time data is available directly via the data feed ADH of Vienna Stock Exchange or indirectly via Bloomberg and Thomson Reuters.

For further information concerning these services please contact:

Central European Gas Hub AG

or

CEE Stock Exchange Group

Market Support & Services

Market Data Services

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2. Determination of CEGHIX®

The CEGHIX® is determined based on below mentioned calculation methods depending on trades or the order book situation within the assessment period. Basically, CEGHIX® is calculated based on volume weighted trades concluded on CEGH Gas Exchange Vienna Stock Exchange. If there were no trades, orders within a certain spread are taken into account to determine CEGHIX®.

2.1. Definition of the assessment period:

Only prices within a certain period of time are taken into account. At the moment the assessment period is the whole exchange trading day. Therefore, all trades and / or valid orders are considered for the determination. The different assessment types applicable depend on the

order book situation and on whether there were trades within the assessment period or not. The different determination methods are described below.

2.2. Calculation methods

2.2.1. Calculation when deals were concluded in the course of the trading day:

If at least one trade was concluded for the respective product in the course of the exchange trading day, the price of this transaction will be defined as CEGHIX® and reference price. If there were multiple trades, the volume weighted average price of all transactions carried out within the assessment period is defined as CEGHIX®. It is ensured that cancelled trades and 'inhouse deals' are not taken into account.

$$\text{CEGHIX} = \frac{\sum_{i=1}^z (\text{Close}_i * \text{Volume}_i)}{\sum_{i=1}^z \text{Volume}_i}$$

CEGHIX ...	CEGH Spot Index	[€/MWh]
Close ...	price of a trade	[€/MWh]
Volume ...	volume of a trade	[MWh]
z ...	number of trades	

2.2.2. Calculation in case of no deals were concluded:

If there were no trades during a trading day, the best and valid bid and ask prices within the assessment period will be used to determine CEGHIX® and the reference price. It is ensured that only those orders will be used which are valid according to *the matching parameters below (please see 2.2.1)*.

$$\text{CEGHIX} = \frac{\sum_{i=1}^z \left(\frac{\text{bid}_i + \text{ask}_i}{2} * t_i \right)}{\sum_{i=1}^z t_i}$$

bid ...	best buy order during the respective time period t	[€/MWh]
ask ...	best sell order during the respective time period t	[€/MWh]
t ...	time period of one buy- / sell constellation rounded in seconds	[sec]
z ...	number of buy- / sell constellations	

2.2.3. Parameters:

Maximum valid spread if $CEGHX_{TD-1} \leq 30$ [€/MWh] = 0.500 [€/MWh]
 Maximum valid spread if $CEGHX_{TD-1} > 30$ [€/MWh] = 1.67 [%]

2.3. Calculation in the case of the absence of reasonable bid-/ask orders:

In case of no trades during a trading day coinciding with the absence of reasonable bid-/ask orders the CEGHIX® is determined in the following manner: Market Support & Services of CEGH gas exchange calls five (5) different trading participants - from different trading companies - and asks them for a fair market price concerning the respective Day-Ahead-Product. Finally after deletion of the best and the worst price the following formula applies.

$$CEGHIX = \frac{1}{z-2} \sum_{i=1}^z x_i$$

CEGHIX	...	CEGH Spot Index	[€/MWh]
x_i	...	Fair price of a trade	[€/MWh]
z	...	number of participants asked for a fair price	

For any questions, please do not hesitate to contact the Market Support & Services Team.

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Kind regards,

your CEGH Market Support & Services Team