



GO MARKET

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HUPX Organized Guarantees of Origin Market

The Hungarian GO Market

2022.04.11. —————



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GO (Guarantees of Origin)

- ▶ Tradeable energy certificate in Europe
- ▶ Claim to the environmental benefits associated with renewable power, gas and high efficiency cogeneration

As a **full member of AIB** the Hungarian **MEKH** (Hungarian Energy and Public Utility Regulatory Authority - HEA) **joined EECS** in February 2022.

Trading through the AIB Hub possible since March 2022.

Why AIB?

- + Standardized cross-border GO trading
- + Faster GO issue and transfer
- + PR in green markets
- + Higher liquidity with international market participants

Access of GOs in Hungary

- + Via GO account or via import/export from/to other AIB domain
- + CMO.Grexel registry system
- + Monthly production data
- + Increasing share of renewables



Phase I: Single Seller model

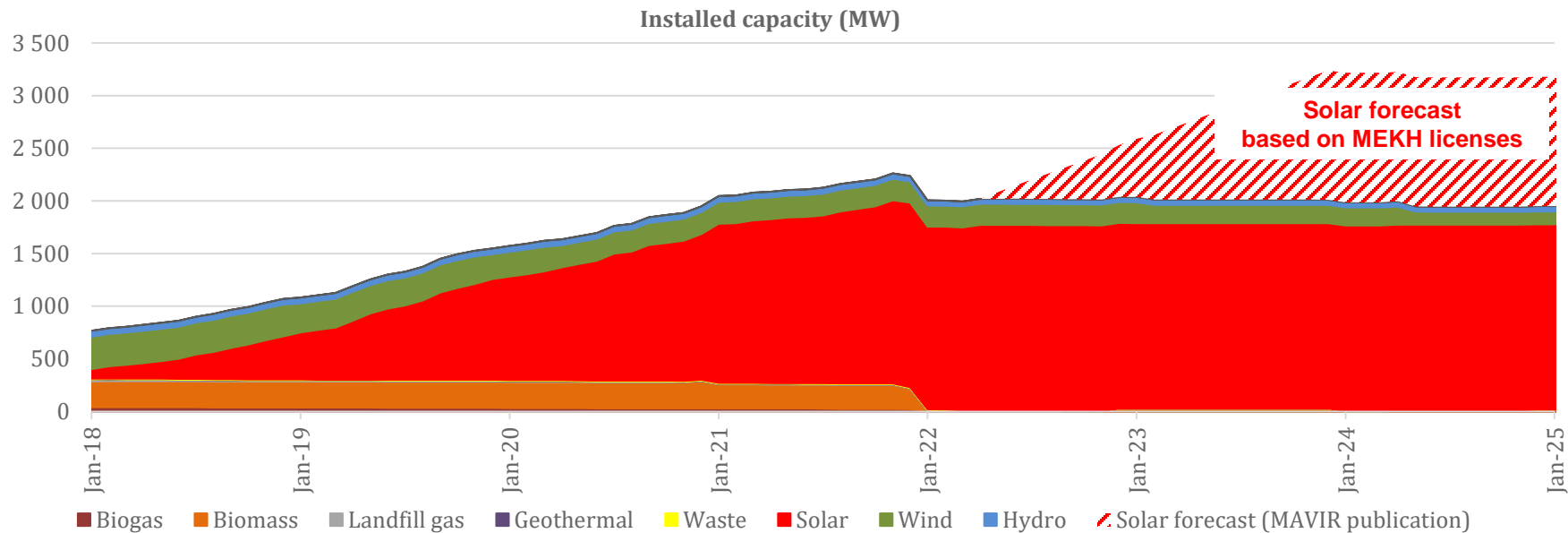
Primary Feed-in-Tariff GO auction

The HUPX GO market will start operating with the single seller model. The Hungarian TSO (MAVIR), as the nominated buyer of Hungarian FiT production will be the sole seller of the related guarantees of origins via quarterly auctions, while buyer side is open to energy traders, end-users and other market participants.

Summary of Product List and Specification

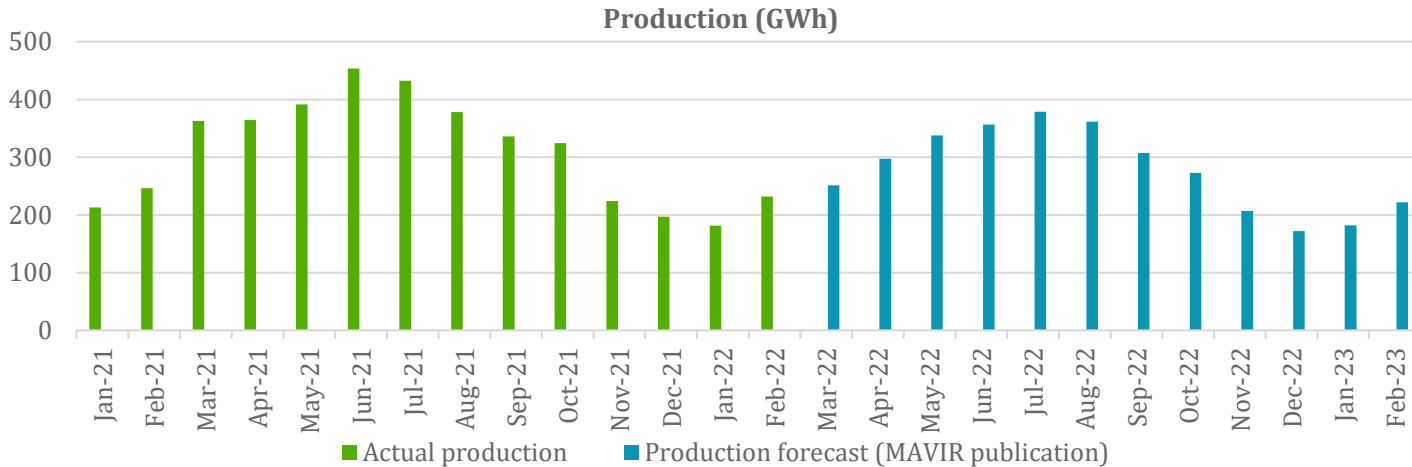
- ▶ **Available technologies:** Biogas, Biomass, Geothermal, Hydro, Landfill gas, Solar, Waste, Wind
- ▶ **Order attributes:** Technology, year and month of production
- ▶ **Pricing mechanism:** Pay-as-bid auction, with highest winning bids receiving newer plants
- ▶ **Seller side:** Hungarian TSO – MAVIR
- ▶ **Clearing and settlement:** Via HUPX technical GO account and HUPX bank account
- ▶ **Guarantee system:** Guaranteed delivery and payment via collaterals for buyers and sellers
- ▶ **Auction frequency:** Quarterly auctions with a possibility to move to monthly





Share of different technologies based on installed capacity and licenses

- ▶ Moderate wind and hydro production besides other technologies
- ▶ Significant and increasing solar production potential
- ▶ Majority of the power plants commissioned in the last 4 years



Estimated market size based on 2021 results

- ▶ FiT = Feed-in-Tariff (KÁT), fix price subsidized production in Hungary besides the recently introduced premium based scheme (METÁR)
- ▶ 3.9 TWh FiT production, out of which
 - ▶ 2.6 TWh came from wind and solar
- ▶ 600-1200 GWh offered for sale every quarterly auction

Auction

Buttons: Add Order, Edit Order, Cancel Order

Auction Detail

Auction Day: 4/11/2022 | Auction Status: Validated

Search

Product	Bidding Period	State
Hydro Jan-22	01/01/2022 - 01/31/2022	Active
Solar Jan-22	01/01/2022 - 01/31/2022	Active
Hydro Feb-22	02/01/2022 - 02/28/2022	Active
Solar Feb-22	02/01/2022 - 02/28/2022	Active
Hydro Mar-22	03/01/2022 - 03/31/2022	Active

Web based trading system

- ▶ Easy order management
- ▶ Exportable reports
- ▶ Secure authentication
- ▶ Interfaces towards GO registry and the Settlement Bank
- ▶ Market Operation support

Join member testing in April!

HUPX Guarantees of Origin Reporting Date 08/04/2022

Public Market Result Report Generation Time 08/04/2022 12:03

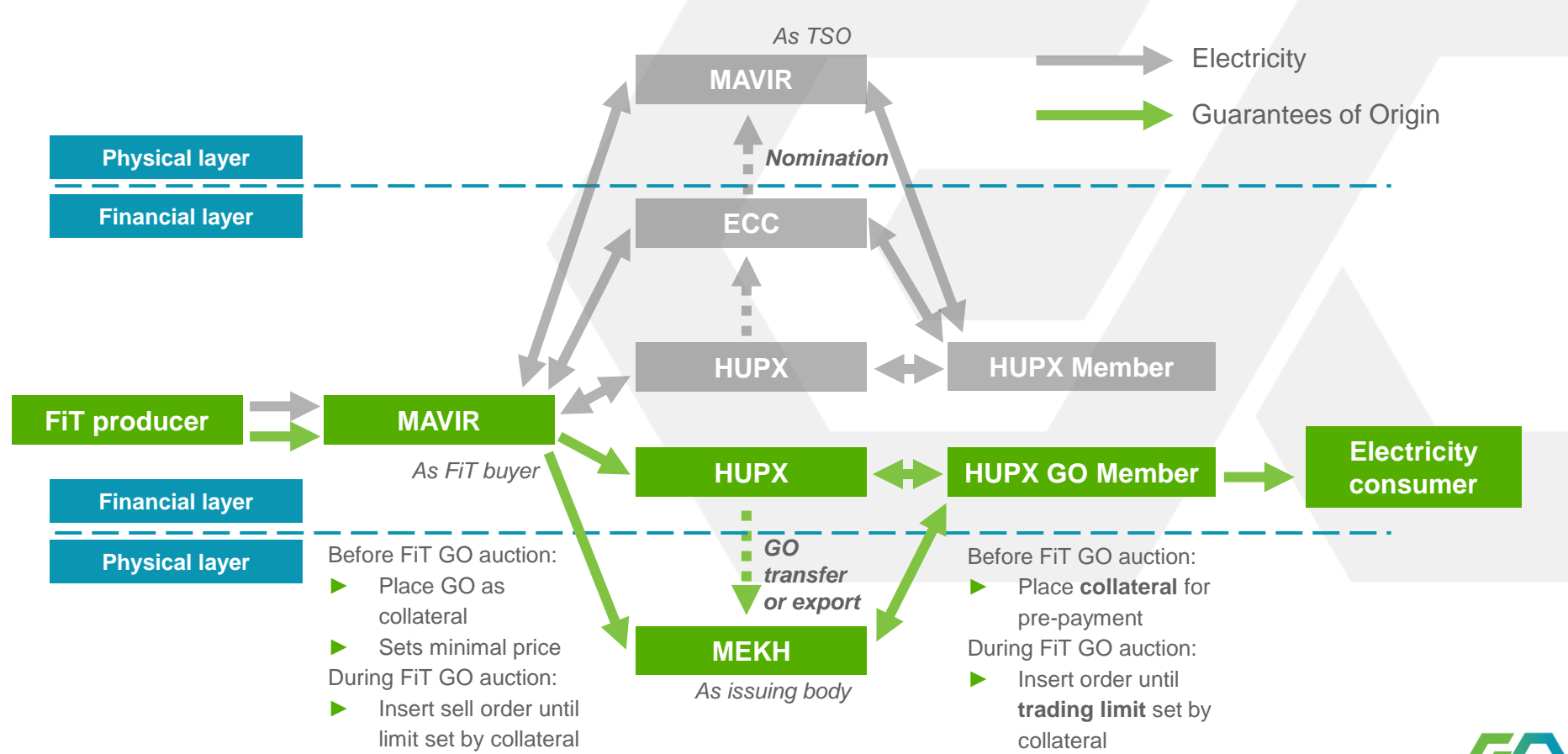
Auction Date	Contract	Technology	GOs Auction Quantity	GOs Sold Quantity	Volume weighted average price (EUR/GO)	Minimum price from Bids (EUR/GO)	Maximum price from Bids (EUR/GO)	Value (EUR)	Number of auction participants	Number of auction participants with winning bids
08/04/2022	Solar Feb-22	Solar	156	74	0.34	0.32	0.35	25.02	6	6
	Solar Jan-22	Solar	182	182	0.27	0.19	0.35	49.93	11	11
	Solar Mar-22	Solar	196	196	0.28	0.19	0.35	54.02	11	11

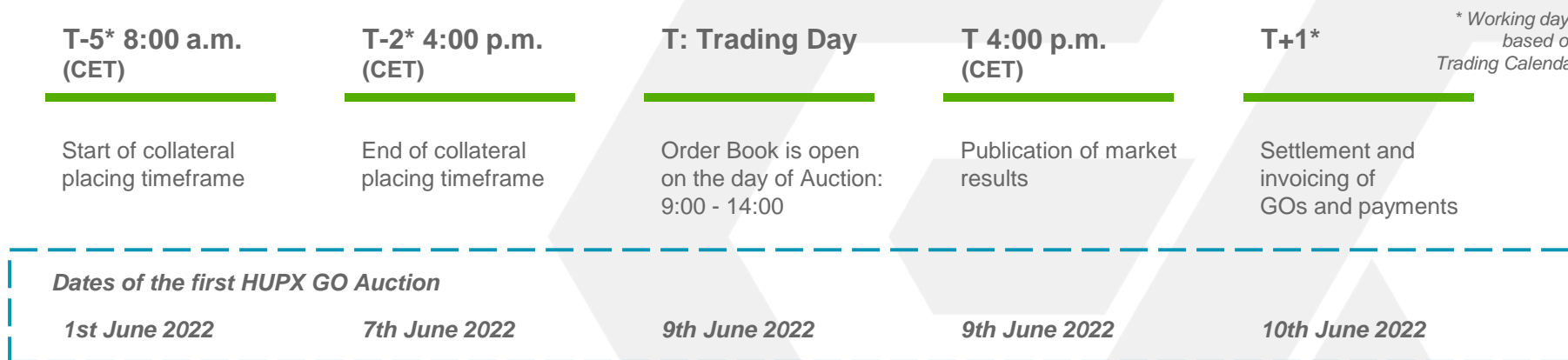
Security Code *

Field required

Login







Principles of timing

- ▶ **Several days for collateral placing** to allow international transactions (e.g. SEPA and other foreign exchange currency transactions)
- ▶ **One day for Auction**, where Order can be inserted into the Order Book to avoid GO price volatility and concentrate liquidity
- ▶ **Quick Settlement** of GOs via CMO.Grexel and AIB Hub (transfer or export) and EUR payments
- ▶ **Invoicing for buyers** is done during Settlement



Outlook – Phase II: Multiple Seller model

Non-Primary Feed-in-Tariff and Secondary GO auction

HUPX is developing the market design for Phase II, where multiple sellers will be allowed on the market under the same GO membership. HUPX plans to *introduce developments with the go-live of Phase II.*

Summary of Product List and Specification

- ▶ **Available countries:** Hungary *and other AIB countries*
- ▶ **Available technologies:** Biogas, Biomass, Geothermal, Hydro, Landfill gas, Solar, Waste, Wind
- ▶ **Order attributes:** *Preference handling via* technology, year and month of production, *commission date and size of power plant*
- ▶ **Seller side:** *Hungarian and other European power plants and GO traders*
- ▶ **Clearing and settlement:** Via HUPX technical GO account and HUPX bank account
- ▶ **Guarantee system:** Guaranteed delivery via collaterals for buyers and sellers
- ▶ **Auction frequency:** *Monthly auctions*



What can we offer?

Simple admission process

Except for the GO account at MEKH or in another AIB country, there are no other admission requirements. Additionally, HUPX will manage clearing and settlement based on collaterals. HUPX GO Market will be available via the web-based HUPX GO Trading System.

Summary of Fee Schedule

- ▶ **Competitive fees charged quarterly:**
 - ▶ **Entrance fee: 0 EUR**
 - ▶ ~~Membership fee: 250 EUR/quarter~~ **No fees for HUPX GO members admitted before the first HUPX GO auction**
 - ▶ **Transaction fee: 0.03 EUR/MWh**
 - ▶ **Export fee: 0.014 EUR/MWh (5 HUF/MWh) only to foreign AIB registries, pass through to HEA**



For admission

- ▶ **Signature HUPX GO membership agreement:** documents available www.hupx.hu
- ▶ **Proof of GO registry account:** either via MEKH or other AIB member
- ▶ ***No entrance and fixed fees in 2022*** (for companies admitted before the first HUPX GO auction)
- ▶ ***No need for clearing house contract***
- ▶ ***No need for special license in Hungary***

April 2022

21st April 2022

April-May 2022

9th June 2022

H2 2022 – 2023

Declaration submission for member testing

Start of member testing

Admission of HUPX GO Members after the approval of HUPX GO Market Rules

First HUPX GO auction

Further auctions based on Trading Calendar & launch of Phase II

Contact us via

- ▶ Sales: membership@hupx.hu





Thank you for your attention!

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