Market Data Sources for

Data Service Entities

9th May 2022

Version 1.1

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2 Context

The document provides an overview of the SEMOpx market data source systems, interface options, available market data, frequency and available timing.

It is intended to aid parties in identifying whether they wish to obtain direction access to the SEMOpx trading systems or if it would be sufficient for them to use the SEMOpx public website for their market data needs.

More extensive documentation on the market data sources is available in the relevant technical documents which are also referenced.

If parties should require any further assistance with understanding the available SEMOpx market data please contact the helpdesk on info@semopx.com.

3 SEMOpx Auctions

3.1 Auctions - Available Reports

SEMOpx operate one day-ahead and three intraday auctions as part of the suite of ex-ante trading opportunities in the SEM. Further details on these auctions is available from the SEMOpx website markets section

All SEMOpx ex-ante auctions are accessed via the ETS trading system. The system allows parties to submit offers and retrieve reports on auctions via both a GUI interface and API. In addition SEMOpx publish the majority of auction reports on the SEMOpx website. The website reports can be accessed via GUI and API as well once the delivery day is concluded (D+1).

The SEM is founded on the principle of transparency; hence almost all information on the auctions is made available to parties eventually. Limitations are imposed about the real time publication of market data which is often anonymised if issued before D+1. Data made available D+1 generally contains a full record of all transactions and the relevant trading parties.

Generally speaking member specific data e.g. members trades that have been concluded is available to the relevant member directly after the auction has concluded. Information on the aggregate data on the markets e.g. market prices and aggregate volumes is also available directly after the auction results are confirmed. However other

information such as the full set of all bids and offers, or concluded trades for all members is made available but only after the delivery day have been completed i.e. Deliver Day + 1 (D+1).

The table below provides an overview of the data available[1] from the ETS trading system and the SEMOpx website for each auction based on reports or API queries.

Report Name	Contents	Interface	Availability	Format	Sample Files	Reference Documents (Section 3.2)
Market Results	Auction clearing prices and aggregate volumes.	Website	After auction results confirmed + <1 hr	Website manual download	https://www.semopx.com/market-data/market-results/	(1)
RetrieveMarketResultsFor	Aggregate clearing price , aggregate volume and exchange rate	ETS GUI/API	Immediately after auction results confirmed	csv	See references	(4)
EA-001: ETS Market Results	Aggregate clearing price, aggregate volume and exchange rate as well as all members individual trades executed for the auction.	Website GUI/API	D+1	csv	MarketResult_SEM-DA_PWR-MRC-D+1_20220502100000_20220502103535.csv MarketResult_SEM-IDA1_PWR-SEM-GB-D+1_20220502163000_20220502163651.csv MarketResult_SEM-IDA2_PWR-SEM-GB-D_20220503070000_20220503070655.csv MarketResult_SEM-IDA3_PWR-SEM-D_20220503130000_20220503131200.csv	
EA-002:ETS Bid File	All orders submitted during the auction (whether they were executed or not – this is indicated).	Website GUI/API	D+1	csv	BidFile_SEM-DA_PWR-MRC-D+1_20220502100000_20220502103535.csv BidFile_SEM-IDA1_PWR-SEM-GB-D+1_20220502163000_20220502163651.csv BidFile_SEM-IDA2_PWR-SEM-GB-D_20220503070000_20220503070655.csv BidFile_SEM-IDA3_PWR-SEM-D_20220503130000_20220503131200.csv	(2),(5)
EA-004: Bid/Ask Curves	Calculated data points for the bid/ask curves, for the combined Ireland and Northern Ireland jurisdictions	Website GUI/API	D+1	xml	BidAskCurves_SEM-DA_20220504_20220503130743.xml BidAskCurves_SEM-IDA1_20220504_20220503190815.xml BidAskCurves_SEM-IDA2_20220504_20220504093638.xml BidAskCurves_SEM-IDA3_20220509_20220509151622.xml	(2),(5)
EA-006: Exchange Transparency	Listing of active participants that have: - Submitted Orders - Submitted Buy Orders - Submitted Sell Orders	ETS GUI/API, Website GUI/API	D+1	xml	Ireland ExchangeTransparencyData_ROI-DA_20220504_20220503130444.xml ExchangeTransparencyData_ROI-IDA1_20220504_20220503190602.xml ExchangeTransparencyData_ROI-IDA2_20220504_20220504093543.xml ExchangeTransparencyData_ROI-IDA3_20220504_20220504151541.xml Northern Ireland ExchangeTransparencyData_NI-DA_20220504_20220503130444.xml ExchangeTransparencyData_NI-IDA1_20220504_20220503190602.xml ExchangeTransparencyData_NI-IDA2_20220504_20220504093543.xml ExchangeTransparencyData_NI-IDA3_20220504_20220504151541.xml	(2),(5)

Table 1: Available Predefined Reports from SEMOpx Auctions

Samples of the files formats relating to the website GUI/API can be found by downloading the live production files from the SEMOpx website under the Market Data>Static Reports section.

3.2   Auctions – Reference Documents

The relevant reference documents for the above reports are listed below.

(1) SEMOpx Website Market Results (only available in chart or table format for manually download)
(2) SEMOpx Data Publication Guide: provides information on market data available from the SEMOpx website (particular Chapter 5 "Ex-Ante Market Publications".
(3) ETS Trader Client Guide (Chapter 16)
(4) ETS API Technical Specification Package
(5) SEMOpx Website API Specification – is available in Appendix B of the Data Publication Guide

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[1] This list excludes member private reports which are only available to the member themselves based on trading activity or related to the setup and maintenance of their units in the trading systems.

4   SEMOpx Continuous Market

4.1   Continuous - Available Reports

In addition to auctions SEMOpx also operate a continuous trading market. Further details on continuous trading are available from the SEMOpx website markets section

The SEMOpx continuous market is accessed via the M7 trading system. The system allows parties to submit offers and retrieve reports on continuous trading via both a GUI interface (Comtrader) and API. In addition SEMOpx publish the majority of continuous trading reports on the SEMOpx website via GUI and API as well once the delivery day is concluded (D+1).

The SEM is founded on the principle of transparency; hence almost all information on the continuous market is made available to parties eventually. Limitations are imposed about the real time publication of market data which is often anonymised if issued before D+1. Data made available D+1 generally contains a full record of all transactions and the relevant trading parties.

Generally speaking member specific data e.g. members offers or trades that have been concluded is available to the relevant member real time. Information on the anonymised current order book and the anonymised historical concluded trades is also available real time from M7. Other sets of full trading day information are also made available publicly through the SEMOpx website but as a set once the delivery day has been completed i.e. Deliver Day + 1 (D+1).

The table below provides an overview of the data available[2] from the M7 trading system and the SEMOpx website for continuous trading based on reports or API queries.

Report/Query Name	Contents	Interface	Availability	Format	Sample Files	Reference Documents (Section 4.2)
M7 GUI Panels	Almost all panels in M7 can be exported including Market Overview of the order book, high/low/last trade for each trading period.	M7 GUI	Real Time	csv	See references	(4)
PblcOrdrBooksResp (Initial retrieval) **PblcOrdrBooksDeltaRprt** (Subsequent updates)	Initial Retrieval - Anonymised public current order book including order book, high/low/last trade for each trading period (no historical data) Updates – provide where any change in the order book since the initial retrieval.	M7 API	Real Time	xml	See references	(3), (6)
PblcTradeConfRprt	Anonymised concluded trades including price, volume and execution time from up to 7 days old	M7 API	Real Time	xml	See references	(3), (6)
EA-007: Intraday Market Results Trade	Inventory of all unmodified, modified, reversed, cancelled and matched trades on the exchange for the trading	Website GUI/API	D+1	xml	IDC_TradeFile_20220504_20220505105505.xml	(1), (5)
EA-008: Intraday Market Results Order	All active orders, which have been created or modified for each member during the trading day.	Website GUI/API	D+1	xml	IDC_OrderFile_20220504_20220505104755.xml	(1), (5)

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[2] This list excludes member private reports which are only available to the member themselves based on trading activity or related to the setup and maintenance of their units in the trading systems.

EA-009: Intraday Market Results Statistics	Market-wide statistics for the volumes and prices of orders matched within the continuous market. For each trading period: -Total volume of buys and sells -Lowest and Highest prices -Last Traded Price -Timestamp of last traded price -Weighted Average Price	Website GUI/API	D+1	csv	IDC_Statistics_20220504_20220504T213950Z.csv	(1), (5)

Table 2: Available Predefined Reports from SEMOpx Continuous Trading

Samples of the files formats relating to the website GUI/API can be found by downloading the live production files from the SEMOpx website under the Market Data>Static Reports section.

4.2   Continuous – Reference Documents

The relevant reference documents for the above reports are listed below.

(1) SEMOpx Data Publication Guide: provides information on market data available from the SEMOpx website (particular Chapter 5 "Ex-Ante Market Publications"

(2) M7 Client User Guide

(3) M7 API Public Message Interface

(4) M7 Manuals

(5) SEMOpx Website API Specification – is available in Appendix B of the Data Publication Guide

(6) M7 API Package Specification[3]

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[3] In order to obtain a full M7 API package specification, a party must be applying to gain access to the M7 system and must sign a non-disclosure agreement. Please contact info@semopx.com for more information.