



***New XSD format for block
and 15-minute bids/offers***

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Introduction

As of 1 January, GME will manage block bids/offers in its Spot Electricity Market (MPE) and 15-minute granularity bids/offers in its Day-Ahead markets (MI).

The following are the impacts of these changes on the xml files (namely on the XSD schemas) that GME publishes on its FTPS server (<https://download.ipex.it>) and in the download area of its website, divided into two stages:

- Stage 1: introduction of quarter-hourly bids/offers for the MI, XBID, and MSD;
- Stage 2: introduction of quarter-hourly and half-hourly bids/offers also in the MGP.

1. Stage 1

Stage 1 will involve the results and the public bids/offers of the MI-A1, MI-A2, MI-A3, XBID, and MSD markets.

1.1. Results and Preliminary Information

A **Periodo** (Period) field will be added at the bottom of the .xml files of results and preliminary information, contained in the following directories. This field will show values from 1 to 92 for the last Sunday of March, from 1 to 100 for the last Sunday of October, and from 1 to 96 for all other days.

- MB_PAIttriServizi (Other Services)
- MB_PRiservaSecondaria (Secondary Reserve)
- MB_PTtotali (Totals)

- MGP_DomandaOfferta¹ (Demand Supply)

- MI-A1_DomandaOfferta¹ (Demand Supply)
- MI-A1_LimitiTransito (Transit Limits)
- MI-A1_Prezzi (Prices)
- MI-A1_Quantita (Quantities)
- MI-A1_Transiti (Transits)
- MI-A1_VincoliGeneralizzati (Generalised Constraints)
- MI-A1_VincoliRampa (Ramp Constraints)

- MI-A2_DomandaOfferta¹ (Demand Supply)
- MI-A2_LimitiTransito (Transit Limits)
- MI-A2_Prezzi (Prices)
- MI-A2_Quantita (Quantities)
- MI-A2_Transiti (Transits)
- MI-A2_VincoliGeneralizzati (Generalised Constraints)
- MI-A2_VincoliRampa (Ramp Constraints)

- MI-A3_DomandaOfferta¹ (Demand Supply)
- MI-A3_LimitiTransito (Transit Limits)
- MI-A3_Prezzi (Prices)
- MI-A3_Quantita (Quantities)
- MI-A3_Transiti (Transits)
- MI-A3_VincoliGeneralizzati (Generalised Constraints)
- MI-A3_VincoliRampa (Ramp Constraints)

¹ The layout of the file will be different from the past. See para. 1.4.

- MSD_ServiziDispacciamento (Dispatching Services)²

- XBID_EsitiParziali1 (Partial Results1)
- XBID_EsitiParziali2 (Partial Results2)
- XBID_EsitiTotali (Total Results)
- XBID_PrezziOrari (Hourly Prices)

1.2. Example of Change of the .Xsd Format of Results

The following is an example of the change to be made to the files that are present in the MI-A1_Prezzi (Prices) folder, with the addition of the **Periodo** (Period) field at the bottom (highlighted in yellow).

```
<?xml version="1.0" standalone="yes"?>
<NewDataSet>
  <xs:schema id="NewDataSet" xmlns=""
    xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:msdata="urn:schemas-microsoft-com:xml-msdata">
    <xs:element name="NewDataSet" msdata:IsDataSet="true"
      msdata:UseCurrentLocale="true">
      <xs:complexType>
        <xs:choice minOccurs="0" maxOccurs="unbounded">
          <xs:element name="Prezzi">
            <xs:complexType>
              <xs:sequence>
                <xs:element name="Data" type="xs:string" minOccurs="0" />
                <xs:element name="Mercato" type="xs:string" minOccurs="0" />
                <xs:element name="Ora" type="xs:string" minOccurs="0" />
                <xs:element name="PUN" type="xs:string" minOccurs="0" />
                <xs:element name="NAT" type="xs:string" minOccurs="0" />
                <xs:element name="CALA" type="xs:string" minOccurs="0" />
                <xs:element name="CNOR" type="xs:string" minOccurs="0" />
                <xs:element name="CSUD" type="xs:string" minOccurs="0" />
                <xs:element name="NORD" type="xs:string" minOccurs="0" />
                <xs:element name="SARD" type="xs:string" minOccurs="0" />
                <xs:element name="SICI" type="xs:string" minOccurs="0" />
                <xs:element name="SUD" type="xs:string" minOccurs="0" />
                <xs:element name="AUST" type="xs:string" minOccurs="0" />
                <xs:element name="COAC" type="xs:string" minOccurs="0" />
                <xs:element name="COUP" type="xs:string" minOccurs="0" />
                <xs:element name="CORS" type="xs:string" minOccurs="0" />
                <xs:element name="FRAN" type="xs:string" minOccurs="0" />
                <xs:element name="GREC" type="xs:string" minOccurs="0" />
                <xs:element name="SLOV" type="xs:string" minOccurs="0" />
                <xs:element name="SVIZ" type="xs:string" minOccurs="0" />
                <xs:element name="MALT" type="xs:string" minOccurs="0" />
                <xs:element name="MONT" type="xs:string" minOccurs="0" />
                <xs:element name="XGRE" type="xs:string" minOccurs="0" />
                <xs:element name="BSP" type="xs:string" minOccurs="0" />
                <xs:element name="XAUS" type="xs:string" minOccurs="0" />
                <xs:element name="XFRA" type="xs:string" minOccurs="0" />
              </xs:sequence>
            </xs:complexType>
          </xs:element>
        </xs:choice>
      </xs:element>
    </xs:schema>
  </NewDataSet>
```

² The unit of measurement contained in the name of the fields will change from MWh to MW. For instance, the field NORD_AcquistiMWh will change to NORD_AcquistiMW.

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```
<xs:element name="Periodo" type="xs:string" minOccurs="0" />
</xs:sequence>
</xs:complexType>
</xs:element>
</xs:choice>
</xs:complexType>
</xs:element>
</xs:schema>
```

1.3. Public Bids/Offers

New fields will be added to the files of public bids/offers to identify any block bids/offers and the MTU of the bid/offer.

From the files of public bids/offers that are present in the folders

- MI-A1_OffertePubbliche (Public Bids/Offers)
- MI-A2_OffertePubbliche
- MI-A3_OffertePubbliche

the **INTERVAL_NO** field will be **deleted**.

The following fields will be added:

Field	Type	Description
OFFER_TYPE	String	Type of bid/offer: S simple bid/offer, B block bid/offer
BLOCK_ID	String	Identification code of the block (here, all bids/offers belonging to the same block will have the same value)
PERIOD	Integer	Number of the quarter-hourly interval to which the bid/offer refers
GRANULARITY	String	MTU of the bid/offer: PT15 (for quarter-hourly bids/offers) and PT60 (for hourly bids/offers)
MINIMUM_ACCEPTANCE_RATIO	Decimal	Minimum percentage of acceptance of block bids/offers

To the files of public bids/offers that are present in the directory

- MGP_OffertePubbliche (Public Bids/Offers)

the **INTERVAL_NO** field will be **deleted**.

The following fields will be added:

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Field	Type	Description
OFFER_TYPE	String	Type of bid/offer: S simple bid/offer, B block bid/offer
BLOCK_ID	String	Identification code of the block (here, all bids/offers belonging to the same block will have the same value)
PERIOD	Integer	Number of the period related to the MTU of the bid/offer (1-100 for quarter-hourly bids/offers, 1-50 for half-hourly bids/offers, and 1-25 for hourly bids/offers)
GRANULARITY³	String	MTU of the bid/offer: PT15 (for quarter-hourly bids/offers) and PT60 (for hourly bids/offers)
MINIMUM_ACCEPTANCE_RATIO	Decimal	Minimum percentage of acceptance of block bids/offers

To the files of public bids/offers that are present in the directory

- MSD_OffertePubbliche (Public Bids/Offers)

the following fields will be added

Field	Type	Description
PERIOD	Entire	Number of the quarter-hourly interval to which the bid/offer refers
GRANULARITY	String	MTU of the bid/offer: PT15

1.4. Demand/Supply Graph

The files published inside the MGP_DomandaOfferta (Demand Supply), MI-A1_DomandaOfferta (Demand Supply), MI-A2_DomandaOfferta (Demand Supply), and MI-A3_DomandaOfferta (Demand Supply) folders will have a completely new format with respect to the past; the following table gives a description of the new format.

³ As of 1 January, the value will always be PT60 until the introduction of 15- and 30-min bids/offers.

Field	Type	Description
DATA (DATE)	Entire	Flow date of bids/offers
SCOPO (PURPOSE)	String	Side of bids/offers (BID=purchase, OFF=sale)
MTU	Integer	Market Time Unit of bids/offers ⁴
INTERVALLO (INTERVAL)	Integer	Applicable period to which bids/offers refer
ZONA_MERCATO (MARKET ZONE)	String	Market zone resulting from the market
QUANTITA_OFFERTA (OFFERED QUANTITIES)	Decimal	Sum of quantities offered by offered price level
QUANTITA_ACCETTATA (ACCEPTED QUANTITIES)	Decimal	Sum of quantities accepted by offered price level
PREZZO_OFFERTO (OFFERED PRICE)	Decimal	Offered price
PREZZO_ACCETTATO (ACCEPTED PRICE)	Decimal	ACCEPTED price
TIPO_OFFERTA (TYPE OF BID/OFFER)	String	Type of bid/offer, simple or block bid/offer

2. Stage 2

In Stage 2, also the MGP market will have quarter-hourly results, thereby enabling participants to submit 15-minute, 30-minute, or 60-minute bids/offers.

2.1. Results and Preliminary Information

The **Periodo** (Period) field will be added at the bottom of the .xml files of results and preliminary information, contained in the following directories. The field will show values from 1 to 92 for the last Sunday of March, from 1 to 100 for the last Sunday of October, and from 1 to 96 for all other days.

- MGP_Fabbisogno (Requirements)
- MGP_LimitiTransito (Transit Limits)

⁴ The MTU may take on the following values: 15, 30, and 60.

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- MGP_Liquidita (Liquidity)
- MGP_MarketCoupling
- MGP_Prezzi15 (Prices 15, new file)
- MGP_PrezziConvenzionali (Conventional Prices)
- MGP_Quantita (Quantities)
- MGP_StimeFabbisogno (Estimated Requirements)
- MGP_Transiti (Transits)
- MGP_VincoliGeneralizzati (Generalised Constraints)
- MGP_VincoliRampa (Ramp Constraints)
- MGP_CurvaOfferte15m (Curve of 15-min bids/offers, new file).

The files published in the MGP_Prezzi (Prices) folder will not be changed; as of the date established by the Market Coupling Steering Committee, they will contain the zonal hourly prices, including the PUN Index GME. **This will be the only result that will be published also at 60 minutes.**

To the files published in the MGP_Prezzi15 (Prices15) folder, in addition to the Period field, also the Granularity field will be added (with the value “PT15”).

2.2. Curve of 15-Min Bids/Offers for the MGP

The files published in this folder comply with the Excel export format available on the page:

<https://www.mercatoelettrico.org/it-it/Home/Esiti/Elettricit /MGP/Esiti/DomandaOfferta#IntestazioneGrafico>

Field	Type	Description
DATA (DATE)	Integer	Flow date of bids/offers
SCOPO (PURPOSE)	String	Side of bids/offers (BID=purchase, OFF=sale)
MTU	Integer	Market Time Unit of bids/offers
ORA (HOUR)	Integer	Hourly timeframe of applicable period
INTERVALLO (INTERVAL)	Integer	Applicable period (quarter-hourly) to which bids/offers refer
ZONA_MERCATO (MARKET ZONE)	String	Market zone resulting from the market
QUANTITA_OFFERTA (OFFERED)	Decimal	Sum of quantities offered by

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QUANTITIES)		offered price level
QUANTITA_ACCETTATA (ACCEPTED QUANTITIES)	Decimal	Sum of quantities accepted by offered price level
PREZZO_OFFERTO (OFFERED PRICE)	Decimal	Offered price
PREZZO_ACCETTATO (ACCEPTED PRICE)	Decimal	Price accepted in the market zone
TIPO_OFFERTA (TYPE OF BID/OFFER)	String	Type of bid/offer, simple or block bid/offer

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