

Annual Report · 2020







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Annual Report 2020



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Executive Summary

2020 has been a challenging year due to the COVID-19 pandemic's impact on human lives and markets around the globe, with unprecedented effects on economies around the world.

In Greece, the consequences of COVID-19 pandemic in the wholesale electricity market volume and prices started to emerge in March, as a result of the restrictive measures enforced, in order to reduce the catastrophic pandemic impacts.

According to Eurostat, Natural gas prices were slightly reduced in 2020 compared to 2019, while CO₂ Prices remained at the previous year's levels.

The traded volume of the wholesale electricity market in Greece for 2020 accumulated at 50.4 TWh, which constitutes the minimum yearly traded volume during the last decade with a drop of -5,5% comparing to 2019 volume. The average Market Clearing Price for 2020 was 45.09 €/MWh for baseload hours and 49.63 €/MWh for peakload, declining comparing to 2019 prices, by -29% and -26% respectively. The main driver of this drop is the decline of energy consumption the impact of COVID-19 reflecting pandemic on the electricity demand.

HEnEx, designated as Single Nominated Electricity Market Operator (NEMO) for the Greek electricity market, continued the smooth and robust operation of the Greek electricity market under the Day Ahead Scheduling (DAS).

On 26 March 2020, six months earlier than the originally scheduled go-live, HEnEx commenced its Derivatives Market after the relevant approval by the Hellenic Capital Market Commission.

On 31 October 2020, with delivery day 01 November 2020, the launch of the new Day Ahead and Intraday Markets took place. The commencement of these markets is a cornerstone for the integration of the Greek Market in the European Electricity Markets aligned to the EU Target Model objectives.

On 15 December 2020, the Single Day Ahead Coupling (SDAC) was extended to Greece by coupling the Greek Bidding Zone to the Multiregional Coupling (MRC) via the Greek-Italian border. Since then, Greek Electricity market operates in coupled mode with the European Electricity Markets.

In the framework of the implementation of Regulation on Wholesale Energy Market Integrity and Transparency (REMIT) HEnEx completed its registration process and was approved by ACER as Registered Reporting Mechanism (RRM) for Data Collection in May 2020. Since October 2020, HEnEx offers to Market Participants reporting services for their transactions, including orders & trades) in Organized Market Places (OMPs) or bilateral contracts to ACER.



2. The Company

Company Profile

Participants - Members

International Activities

New Initiatives

Reporting and REMIT Services



Company Profile

The Hellenic Energy Exchange S.A. (HEnEx) is part of EnExGroup and was founded on the 18th June 2018 as a spin-off from the electricity market branch of LAGIE S.A. and currently DAPEEP S.A. Building upon accrued experience gained over more than a decade during which LAGIE S.A. (then HEnEx) was operating continuously consistently and the Day-Ahead Scheduling Energy Transactions System, HEnEx S.A. has been designated by the Greek Regulator (Regulatory Authority for Energy-RAE) as Nominated Electricity Market Operator (NEMO) for the operation of the Day-Ahead and Intraday Electricity Markets.

Following the approval of the Hellenic Capital Market Commission (HCMC) on 16.3.2020 HEnEx S.A is also operating the Energy Financial Market, as Market Operator of the Energy Derivatives Market.

HEnEx is also responsible for organizing and operating Greek gas and environmental markets. Its subsidiary, EnEx Clearing House S.A. (EnExClear) provides clearing and settlement services.

HEnEx is committed to providing high quality, transparent, and nondiscriminatory services to all market participants, working towards the EU's market integration and coupling its markets with neighboring countries. To that end, HEnEx has become a full member of the Price Coupling of Regions (PCR) initiative and is closely and actively following all the relevant EU initiatives.

Shareholders

HEnEx S.A. is a private company governed by Greek law. Its shareholders are:

Public Sector – 49%

DAPEEP (Hellenic RES & GO) 22%

ADMIE (Hellenic Power TSO) 20% DESFA (Hellenic Gas TSO) 7%

Private Sector - 51%

ATHEX Group (Athens Exchange) 21% EBRD (European Bank for Reconstruction and Development) 20% CSE (Cyprus Exchange) 10%

EnExClear S.A., a subsidiary of HEnEx founded on 02.11.2018, is responsible for the clearing and settlement of transactions concluded in the Day-Ahead and Intraday Markets, as well as the clearing and settlement of positions in the Balancing Market.

Participants-Members

The number of Market Participants in DAM & IDM Markets for 2020 amounted to 64 and the number of Members in the Derivatives Market amounted to 21 for 2020.

International Activities

HEnEx, as a member of European associations, is actively involved in various groups and task forces, among which are the following:

• EUROPEX

The business Association of European Energy Exchanges, market operators and delegated operators in Europe.

NEMO COMMITTEE

The NEMO Committee facilitates the cooperation among NEMOs for all common European tasks necessary for the efficient and secure design, implementation and operation of single day-ahead and intraday coupling. The NEMO Committee is formed by the appointed representatives of each NEMO.

• PCR



Price Coupling of Regions (PCR) is the project of European Power Exchanges to develop a single price coupling solution to be used for calculating electricity prices across Europe respecting the capacity of the relevant network elements on a dayahead basis.

• SDAC/SDIC

The aim of Single Day-ahead Coupling (SDAC) is to create a single pan European cross zonal day-ahead electricity market.

Single Intraday Coupling (SIDC) is an initiative between Nominated Electricity Market Operators (NEMOs) and Transmission System Operators (TSOs) which enables continuous cross-border trading across Europe.

New Initiatives

With the successful implementation of the Target Model, the launch of the Derivatives Market and the coupling of the Day Ahead Market with the Italian borders, 2020 was a very productive year for HEnEx. The developments have generated new optimism regarding the exchange's ability to attract liquidity, a strategic priority goal. Despite the Covid-19 pandemic HEnEx has continued to move forward with new projects.

The current circumstances in the energy sector and in the economy as a whole has only strengthened our resolve to continue on implementing new initiatives. HEnEx will soon be widening its provided services with the completion of new initiatives. In the electricity sector, the coupling of the Greek and Bulgarian bidding zones for the Day Ahead Market planned for the 2nd Quarter 2021, the Coupling of Intraday Markets with Italy, planned for the 3rd Quarter 2021 and the XBID, planned for the 4th Quarter 2021. In addition to the new initiatives planned for the electricity sector, a new milestone, the release of the Gas Market Platform, is planned to start at the end of 2021.

Reporting Services

HEnEx fully complies with pre and post trade transparency requirements and conducts multiple reports regularly and upon request. Among its regularly publications are the daily official list for the Energy Derivatives Market, the weekly report for the HEnEx Spot markets and the monthly reports for both spot and derivatives markets. HEnEx works closely with the competent EU Bodies and Regulatory Authorities, coordinating regulatory documentation activities along with data reports as requested.

REMIT Reporting:

According to REMIT Regulation 1227/2011 Art.8, all the Market Participants shall provide the Agency for Cooperation of Energy Regulators (ACER) with a record of their wholesale energy market transactions, including orders to trade. The submission of such records to ACER is performed through a Registered Reporting Mechanism (RRM).

HEnEx, being approved as RRM, provides REMIT Reporting Services to (a) Market Participants who intend to use HEnEx as RRM, (b) Market Participants who intend to use a third party RRM but are trading members of HEnEx and (c) Market Participants reporting their bilateral contracts.

HEnEx is providing a dedicated reporting application accessible through its REMIT Portal enabling Market Participants to fulfil their REMIT Reporting obligations.

MiFID II Position Reporting and MiFIR Transaction Reporting:

• Investment firms which are HEnEx Members can fulfil their transaction



reporting obligations through Athens Stock Exchange SA ("ATHEX"), which is authorized from the Hellenic Capital Market Commission ("HCMC") as an Approved Reporting Mechanism (ARM).

• HEnEx Members that are non-Investment firms can fulfil their reporting obligations through a dedicated service offered by HEnEx (HRS).

• Reports are automatically generated and are submitted automatically to the

National Competent Authority (NCA) in time to meet reporting deadlines.

Position Reporting:

A trading venue on which commodity derivatives, emission allowance and derivatives thereof are being traded are obliged to report Positions on a daily and weekly basis. PRS (Position Reporting System) is a Service part of the Enexgroup Members' Portal. PRS has been developed in order for ENEXGroup to comply with the above reporting regulations.



3. Electricity Markets in Greece

Day-Ahead Market

Intra-Day Market

DAM & IDM Aggregated Overview

Derivatives Market

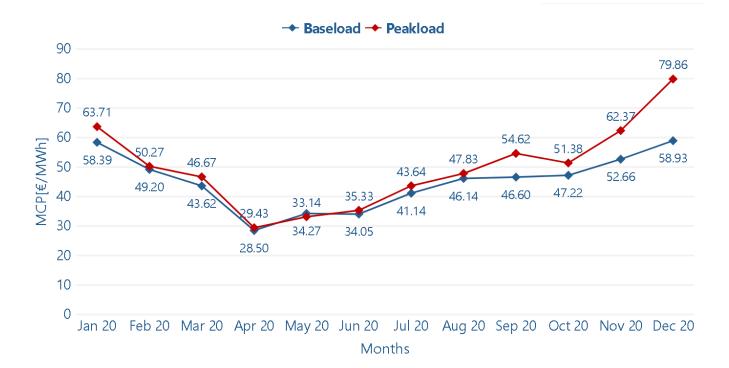


Day-Ahead Market

Monthly Day-Ahead MCP



Monthly Day-Ahead Prices





Monthly Day-Ahead Weighted Average Prices

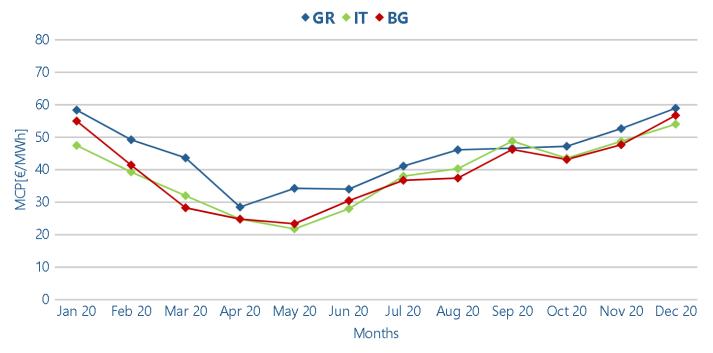


Monthly Day-Ahead Volume and Average Prices



Volume + Peakload + Baseload

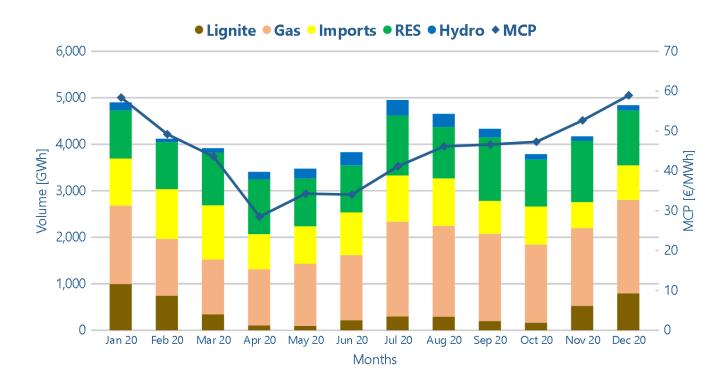




Monthly Day-Ahead Prices on Greece, Italy (PUN) and Bulgaria

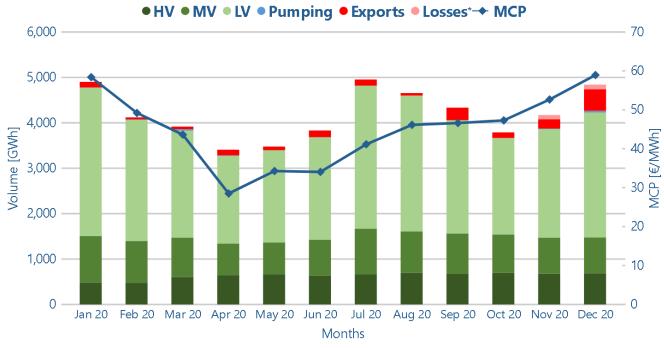
· Data source for MCP of Italy(PUN): <u>http://www.mercatoelettrico.org/En/Download/DatiStorici.aspx</u>

· Data source for MCP of Bulgaria: <u>http://www.ibex.bg/en/market-data/dam/prices-and-volumes/#data-table</u>



Monthly Day-Ahead Sell Side Volume Mix





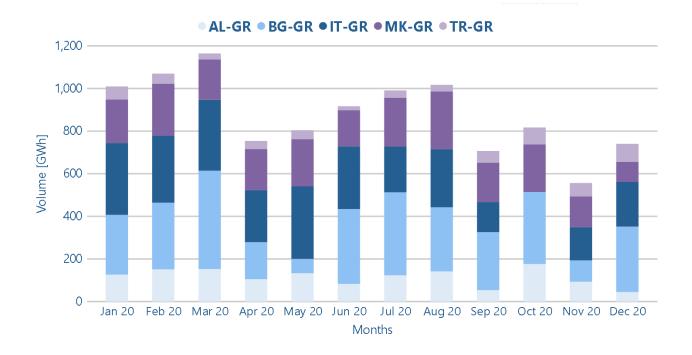
Monthly Day-Ahead Buy Side Volume Mix

Day-Ahead MCP and Volume per Month

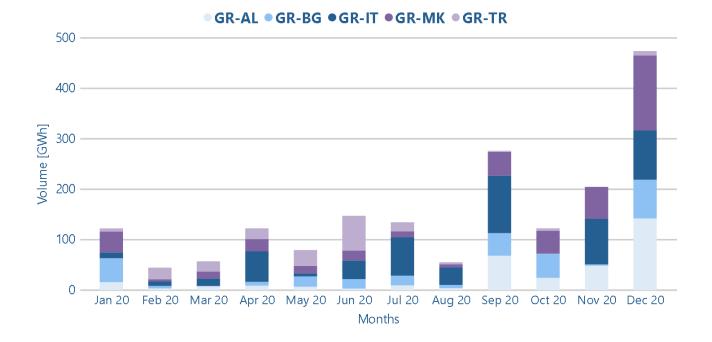
Year	Month	Minimum MCP [€/MWh]	Average MCP [€/MWh]		Maximum MCP [€/MWh]	Peakload MCP [€/MWh]		Volume [Gwh]
2020	January	23.81	58.39		85.11	63.71		4 901
2020	February	0.00	49.20	🔶 -16%	84.02	50.27	🕹 -21%	4,120
2020	March	0.00	43.62	🔶 -11%	130.00	46.67	2 -7%	3,916
2020	April	0.00	28.50	🔶 -35%	80.01	29.43	🔸 -37%	3,407
2020	May	0.00	34.27	120%	79.06	33, 14	13%	3,476
2020	June	1.51	34.05	¥ -1%	70.00	35,33	7%	3,831
2020	July	20.02	41, 14	121%	150.05	43.64	124%	4 953
2020	August	0.00	46.14	12%	112.17	47.83	7 10%	4,655
2020	September	21.60	46.60	7 1%	104.41	54,62	14%	4,334
2020	October	0.00	47.22	7 1%	110.01	51.38	≥ -6%	3,789
2020	November	17.03	52.66	12%	1 10, 14	62.37	121%	4 172
2020	December	-0.01	58.93	12%	140.01	79.86	128%	4 840



Cross Border Volume – Imports per month



Cross Border Volume – Exports per month



Annual Report 2020

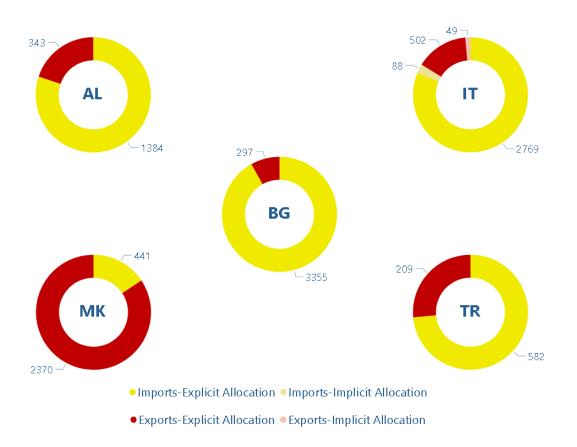


Monthly position of all cross border flows



Imports • Exports

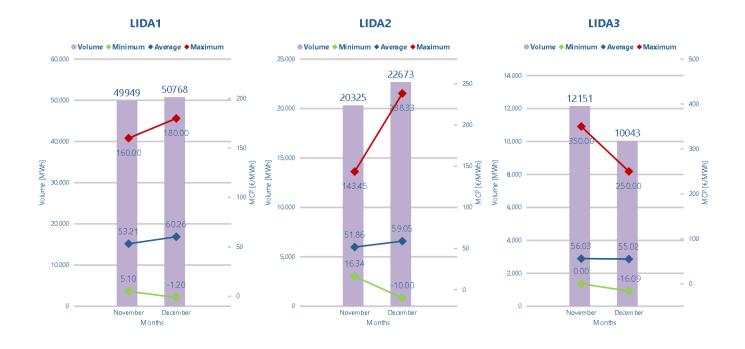
Total Cross Border Volumes (GWh) per Border



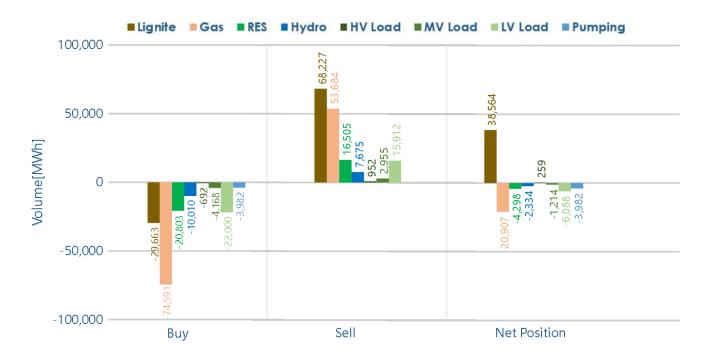


Intra-Day Market

Intraday-Day MCP and Volumes



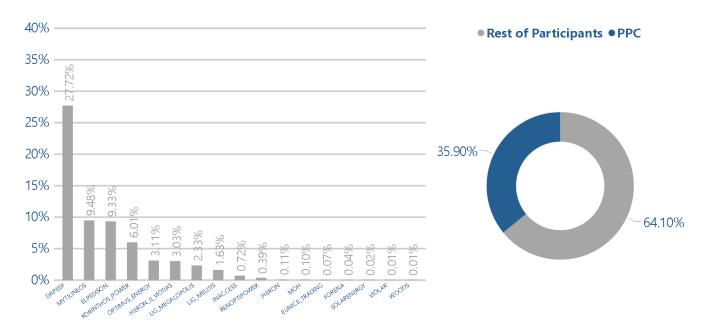
Intraday-Day Volume Mix per side and Net position



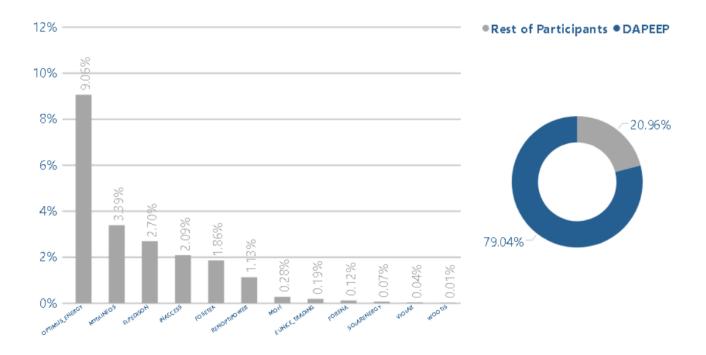


DAM & IDM · Aggregated Overview

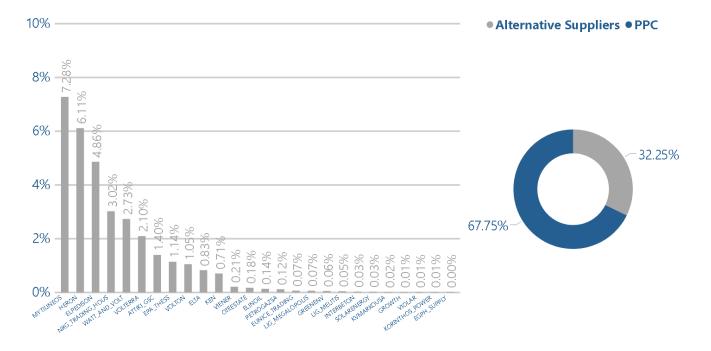
Final Market Schedule Shares for Production Units per Market Participant



Final Market Schedule Shares for RES Production Units per Market Participant

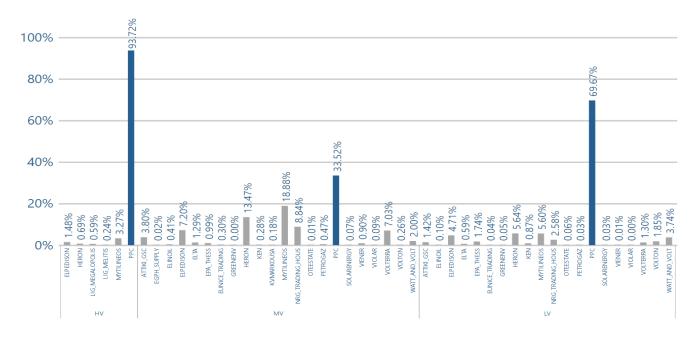






Final Market Schedule Shares for Domestic Load per Market Participant

Final Market Schedule Shares for Domestic Load per Voltage Level and Market Participant

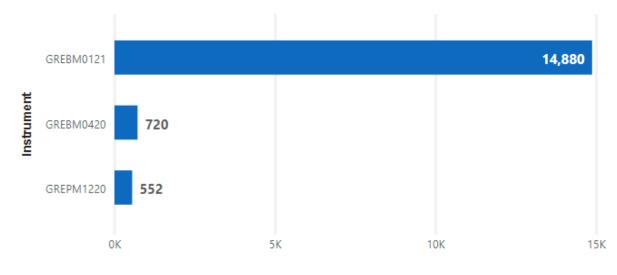




Derivatives Market

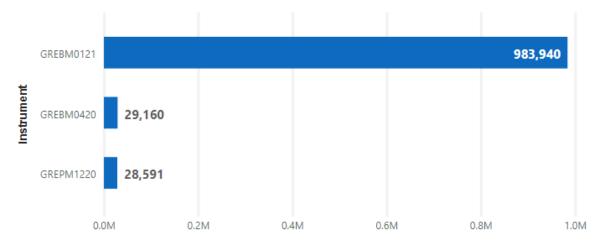
HEnEx launched its Derivatives Market on Monday 23 March 2020. The number of admitted members was 22 by the end of the year and one registered Market Maker.

Volumes remained lower than expected, mainly due to the fact that the market went live at the outbreak of the Covid-19 pandemic and the general turbulence in the fundamentals of energy markets. The best month in terms of turnover was December with 14,880 MWh traded.



Power Traded in MWh per Instrument

Power Traded Value per Instrument





Final settlement prices for 2020 for traded series

Series	Final Settlement Price (€/MWh)	Series	Final Settlement Price (€/MWh)
Base Loa	d	Peal	< Load
GREBM0320	43.65	GREPM0320	45.36
GREBM0420	28.51	GREPM0420	28.88
GREBM0520	34.27	GREPM0520	33.09
GREBM0620	34.03	GREPM0620	35.44
GREBM0720	41.13	GREPM0720	43.40
GREBM0820	46.13	GREPM0820	47.06
GREBM0920	46.62	GREPM0920	53.93
GREBM1020	47.22	GREPM1020	51.03
GREBM1120	52.66	GREPM1120	62.37
GREBM1220	58.93	GREPM1220	79.86



4.Annex

Definitions

ACRONYM	Definition
GR BZ	Greek Bidding Zone
MCP	Market Clearing Price
NTC	Net Transfer Capacity

Data Sources

Monthly Day-Ahead Prices on Greece, Italy and Bulgaria

- Data source for MCP of Italy: <u>http://www.mercatoelettrico.org/En/Download/DatiStorici.aspx</u>
- Data source for MCP of Bulgaria: <u>http://www.ibex.bg/en/market-data/dam/prices-and-volumes/#data-table</u>

Market Details

• From 01/01/2020 to 31/10/2020 the Greek electricity market model was the Day Ahead Scheduling (mandatory pool). From Delivery Day 01/11/2020, the new Greek electricity market model was launched, using the Pan-European Hybrid Electricity Market Integration Algorithm (EUPHEMIA).

· Market Time Units of GR BZ are in CET-hr.

·Intraday Market of GR BZ (from 01/11/2020) consists of three Local IntraDay Auctions (LIDA).

*In this third version, Power Traded in MWh per Instrument & Power Traded Value per Instrument figures in page 20 and Final Market Schedule Shares for Domestic Load per Voltage Level and Market Participant figure in page 19 have been amended.