



JOINT STOCK COMPANY
ELEKTROMREŽA SRBIJE

THE PUBLICATION OF FUNDAMENTAL DATA IN ELECTRICITY MARKET



Market Division
EMS JSC Belgrade
November 2019



АКЦИОНАРСКО ДРУШТВО
ЕЛЕКТРОМРЕЖА СРБИЈЕ



Agenda

- ▶ Changes of the Rules on the publication of Electricity Market Fundamental data:
 - ▶ Year-ahead Forecast Margin;
 - ▶ Total Capacity Nominated;
 - ▶ Total Scheduled Commercial Exchanges;
 - ▶ Congestion Management –Redespatching;
 - ▶ Day-ahead Generation Forecast for Wind and Solar;
 - ▶ Planned and Actual Unavailability of Generation/Production Unit.

The Publication Of Fundamental Data In Electricity Market

- ▶ Energy Agency of the Republic of Serbia has approved the Rules on the Publication of Electricity Market Fundamental Data and they are applicable from on 1st of September 2019
- ▶ Rules on the Publication of Electricity Market Fundamental Data are in line with changes to the guidelines for the implementation of EU Regulation 543/2013 published by ENTSO-E.

Year-ahead Forecast Margin

- ▶ The change relates to the description of the data:
 - ▶ A year-ahead forecast margin (“remaining capacity”) is calculated as the difference between yearly forecast of Reliable Available Capacity and yearly forecast of Total Load.
 - ▶ The Reliable Available Capacity (RAC) is the difference between the net generating capacity (NGC) and the Unavailable Capacity (UC).
 - ▶ The UC consists of Non-Usable Capacity, Maintenance and Overhauls, Outages and System Services Reserve.

Year-ahead Forecast Margin

Year-ahead Forecast Margin ?

Year-ahead Forecast Margin [8.1]

Year



2019



Control area

Bidding zone

Country

Area

Montenegro (ME) ▼

Netherlands (NL) ▼

Norway (NO) ▼

Poland (PL) ▼

Portugal (PT) ▼

Romania (RO) ▼

Russia (RU) ▼

Serbia (RS) ▼

BZN|RS



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Area	Forecast margin
	[MW]
BZN RS	<u>103</u>



Total Capacity Nominated

- ▶ Transmission system operator shall publish for each border and direction:
 - ▶ The value for the **long-term** time horizons
 - ▶ consists of nominations from the following allocations: yearly, quarterly, monthly and weekly.
 - ▶ The value for the **day ahead** time horizon
 - ▶ consists of nominations from the following allocations: yearly, quarterly, monthly, weekly and daily.
 - ▶ The value for the **Intraday** time horizon
 - ▶ consists of nominations from the following allocations: yearly, quarterly, monthly, weekly, daily and intraday.

Total Capacity Nominated

Total Nominated Capacity ?

Total Capacity Nominated [12.1.B]

Day

< 04.11.2019 ⌵ >

Border - Control Area

Border - Bidding Zone

Area

Serbia (RS) ⌵

BZN|RS - BZN|AL

BZN|RS - BZN|BA

BZN|RS - BZN|BG

BZN|RS - BZN|HR

BZN|RS - BZN|HU

BZN|RS - BZN|ME

BZN|RS - BZN|MK

BZN|RS - BZN|RO

Slovakia (SK) ⌵

Slovenia (SI) ⌵

⌵ 🌐 📊 [Show fullscreen](#) [Export Data](#) ⌵

CET (UTC+1) / CEST (UTC+2) ⌵

Time	BZN RS > BZN MK				BZN MK > B		
	Long term [MW]	Daily [MW]	Intraday [MW]	Total (legacy) [MW]	Long term [MW]	Daily [MW]	It
00:00 - 01:00	n/e	n/e	n/e	936	n/e	n/e	
01:00 - 02:00	n/e	n/e	n/e	947	n/e	n/e	
02:00 - 03:00	n/e	n/e	n/e	949	n/e	n/e	
03:00 - 04:00	n/e	n/e	n/e	937	n/e	n/e	
04:00 - 05:00	n/e	n/e	n/e	950	n/e	n/e	
05:00 - 06:00	n/e	n/e	n/e	881	n/e	n/e	
06:00 - 07:00	n/e	n/e	n/e	895	n/e	n/e	
07:00 - 08:00	n/e	n/e	n/e	922	n/e	n/e	
08:00 - 09:00	n/e	n/e	n/e	954	n/e	n/e	
09:00 - 10:00	n/e	n/e	n/e	987	n/e	n/e	



Total Scheduled Commercial Exchanges

- ▶ Transmission system operator shall publish for each border and direction:
 - ▶ The value for the **day ahead** time horizon
 - ▶ consists of commercial exchanges in aggregated form from the following allocations: yearly, monthly, quarterly, weekly and daily.
 - ▶ The value for the **intraday** time horizon
 - ▶ consists of commercial exchanges in aggregated form from the following allocations: yearly, monthly, and quarterly, weekly, daily and intraday.

Total Scheduled Commercial Exchanges

Scheduled Commercial Exchanges ?

Total Commercial Schedules [12.1.F]
Day-ahead Commercial Schedules [12.1.F]

Day

Border - Control Area

Border - Bidding Zone

Border - Country

Area

 Serbia (RS) ▼

 BZN|RS - BZN|AL

 BZN|RS - BZN|BA

 BZN|RS - BZN|BG

 BZN|RS - BZN|HR

 BZN|RS - BZN|HU

 BZN|RS - BZN|ME

 BZN|RS - BZN|MK

 BZN|RS - BZN|RO

 Slovakia (SK) ▼

 Slovenia (SI) ▼

 Spain (ES) ▼

 Sweden (SE) ▼

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Time	BZN HU > BZN RS		BZN RS > BZN HU	
	Day Ahead [MW]	Total [MW]	Day Ahead [MW]	Total [MW]
00:00 - 01:00	943	1083	83	83
01:00 - 02:00	865	1102	102	102
02:00 - 03:00	807	1090	160	160
03:00 - 04:00	777	1101	231	231
04:00 - 05:00	799	1140	187	187
05:00 - 06:00	883	1138	155	155
06:00 - 07:00	801	998	261	261
07:00 - 08:00	801	861	300	300
08:00 - 09:00	865	935	252	252
09:00 - 10:00	779	845	198	198
10:00 - 11:00	811	948	206	206
11:00 - 12:00	841	986	231	231
12:00 - 13:00	817	983	260	260



Congestion Management -Redispatching

- ▶ The following information shall be published:
 - ▶ Action taken (increase or decrease in generation, increase or decrease in consumption);
 - ▶ EIC of element which is the reason for applying redispatching measures;
 - ▶ Location – marking of border;
 - ▶ Name of asset;
 - ▶ Type of asset;
 - ▶ The reason for the action (2 possibilities): “Load flow overload” (current problem), “Voltage level adjustment”;
 - ▶ **Redispatched energy (MWh) resulting from changes of affected generation/load capacity.**
 - ▶ **The control area where energy is going**
 - ▶ **The control area where energy is taken from**
 - ▶ The start and end date (day, hour) of the action;
 - ▶ Comment or additional information, if any.

Congestion Management -Redispatching

Redispatching Internal ?

Redispatching Internal [13.1.A]

Day Range

From < 01.01.2019 >

To < 17.11.2019 >

Control Area

Area

- Netherlands (NL) ▼
- North Macedonia (MK) ▼
- Norway (NO) ▼
- Poland (PL) ▼
- Portugal (PT) ▼
- Romania (RO) ▼
- Russia (RU) ▼
- Serbia (RS) ▼
- CTAIRS
- Slovakia (SK) ▼

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Time Interval	Action	Area	Impact		Reason
			Quantity	Unit Of Measure	
No data found for criteria selected					

Day-ahead Generation Forecast for Wind and Solar

- ▶ Electricity producer shall submit forecast data for generation connected to the transmission system:
 - ▶ **Current forecast:** The information is the last update of the current forecast. The information shall be regularly updated and published during intra-day trading;
 - ▶ **Day ahead forecast until 17.30:** This value is the most recent forecast at 17:30 the day before. The information shall be published no later than 18.00 Brussels time, one day before actual delivery takes place;
 - ▶ **Intraday forecast until 7.50:** This value is the most recent forecast at 7:50 the day of delivery. At least one update to be published at 8.00 Brussels time on the day of actual delivery for intra-day.

Day-ahead Generation Forecast for Wind and Solar

- ▶ Distribution system operator or closed distribution system operator shall submit forecast data for generation connected to the distribution system or closed distribution system:
 - ▶ **Current forecast:** The information is the last update of the current forecast. The information shall be regularly updated and published during intra-day trading;
 - ▶ **Day ahead forecast until 17.30:** This value is the most recent forecast at 17:30 the day before. The information shall be published no later than 18.00 Brussels time, one day before actual delivery takes place;
 - ▶ **Intraday forecast until 7.50:** This value is the most recent forecast at 7:50 the day of delivery. At least one update to be published at 8.00 Brussels time on the day of actual delivery for intra-day.

Day-ahead Generation Forecast for Wind and Solar


Generation Forecasts for Wind and Solar ?

Day-ahead Generation Forecasts for Wind and Solar [14.1.D]

Intraday Generation Forecasts for Wind and Solar [14.1.D]

Current Generation Forecasts for Wind and Solar [14.1.D]

Day and Time Range

< 07.11.2019  >

Control area

Bidding zone

Country

Area

- Netherlands (NL) ▼
- North Macedonia (MK) ▼
- Norway (NO) ▼
- Poland (PL) ▼
- Portugal (PT) ▼
- Romania (RO) ▼
- Russia (RU) ▼
- Serbia (RS) ▼
- BZNIRS
- Slovakia (SK) ▼

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CET (UTC+1) / CEST (UTC+2) ▼

MTU	BZN RS					
	Generation Forecast					
	Wind					
	Onshore			Offshore		
	[MW]			[MW]		
	Day ahead	Intraday	Current	Day ahead	Intraday	Current
00:00 - 01:00	n/e	n/e		n/e	n/e	
01:00 - 02:00	n/e	n/e		n/e	n/e	
02:00 - 03:00	n/e	n/e		n/e	n/e	
03:00 - 04:00	n/e	n/e		n/e	n/e	
04:00 - 05:00	n/e	n/e		n/e	n/e	

- Data related to the forecast and the actual generation from solar and wind energy shall be published once the share of electricity generated from these renewable sources exceeds 5% of the total annual electricity production.

Planned and Actual Unavailability of Generation/Production Unit

- ▶ Actual unavailability of generation unit/production unit
 - ▶ If the actual unavailability have been planned and already reported with the correct available capacity, it's not necessary to deliver again the data.

Planned and Actual Unavailability of Generation/Production Unit

Unavailability of Production and Generation Units ?

Planned Unavailability of Generation Units [15.1.A]

Changes in Actual Availability of Generation Units [15.1.B]

Planned Unavailability of Production Units [15.1.C]

Changes in Actual Availability of Production Units [15.1.D]

Day Range

From

To

Control area

Bidding zone

Area

- Netherlands (NL) ▾
- North Macedonia (MK) ▾
- Norway (NO) ▾
- Poland (PL) ▾
- Portugal (PT) ▾
- Romania (RO) ▾
- Russia (RU) ▾
- Serbia (RS) ▾
- CTAIRS
- Slovakia (SK) ▾
- Slovenia (SI) ▾
- Spain (ES) ▾
- Sweden (SE) ▾
- Switzerland (CH) ▾

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Unit Name

Unit Code

Filter

Status	Nature	Type	Unavailability period	Area	Unit Name	Capacity		
						Installed	Available	
			Start - End			[MW]	[MW]	
			01.01.2019 00:01 - 16.01.2019 13:48 (CET)	CTA RS	TE Kolubara G5	110	0	<input type="button" value="+"/>
			01.01.2019 00:01 - 03.01.2019 14:18 (CET)	CTA RS	TENT A G4	329	0	<input type="button" value="+"/>
			01.01.2019 00:01 - 07.01.2019 12:52 (CET)	CTA RS	TE Morava G1	125	0	<input type="button" value="+"/>
			01.01.2019 00:01 - 01.01.2019 23:58 (CET)	CTA RS	HE Đerdap 1 G2	176	0	<input type="button" value="+"/>
			01.01.2019 23:59 - 31.12.2019 23:59 (CET)	CTA RS	HE Đerdap 1 G2	176	0	<input type="button" value="+"/>
			03.01.2019 23:27 - 05.01.2019 19:10 (CET)	CTA RS	TENT A G6	348	0	<input type="button" value="+"/>



THANK YOU FOR YOUR TIME AND ATTENTION



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