



Nezavisni operator sistema u Bosni i Hercegovini
Независни оператор система у Босни и Херцеговини
Neovisni operator sustava u Bosni i Hercegovini
Independent System Operator in Bosnia and Herzegovina

**ANNUAL REPORT
ON POWER FLOWS IN THE TRANSMISSION SYSTEM
OF BOSNIA AND HERZEGOVINA IN 2015**

Sarajevo, 11th February 2016

This Report presents power flows in the transmission system in BiH in 2015. It includes main review of power flows and specific indicators and their comparison with the previous year.

Electricity balance in the transmission system

Total amount of 18.100 GWh of electricity was available on the transmission network of BiH in 2015. 14.165 GWh was produced in the transmission system and another 63 GWh of electricity is injected from the distribution network. From the neighbouring systems it was received 3.872 GWh of electricity.

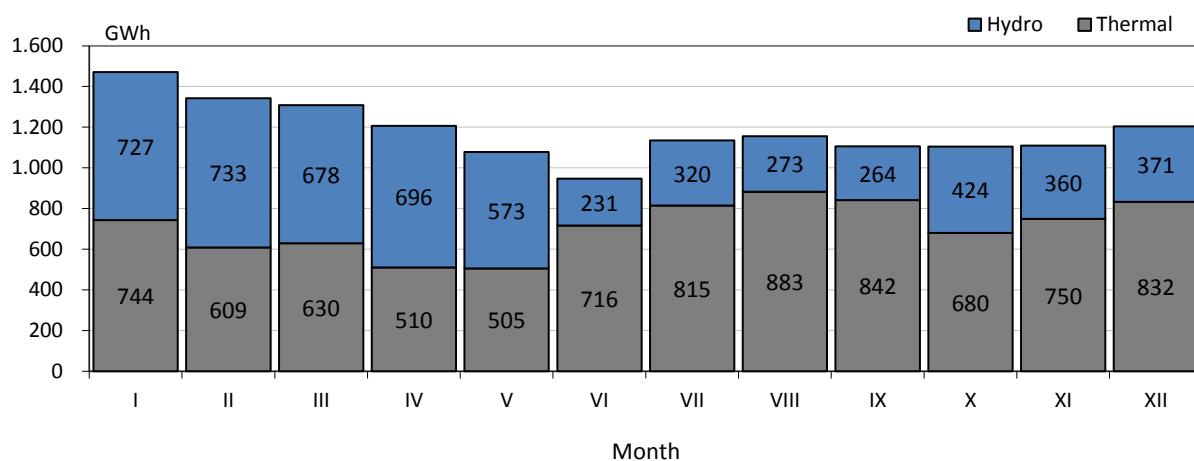
Out of totally available electricity on transmission network, the distribution companies took over 9.490 GWh, customers directly connected to the transmission system took over 2.230 GWh, neighbouring systems were delivered 6 007 GWh, while transmission losses amounted 359 GWh, which makes 1,99% of totally available electricity on transmission network. During 2015, PSHPP Čapljina took over 13.9 GWh.

Electricity consumption in BiH in 2015 rose by 3% compared with the consumption in 2014.

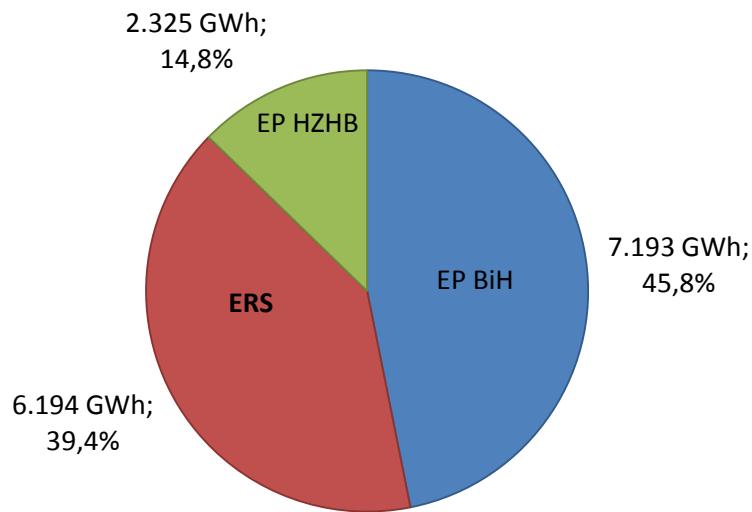
Electricity generation in the transmission system

Out of totally produced 14.165 GWh of electricity in transmission system in 2015, Hydro Power Plants produced 5.650 GWh, i.e. 39,9%, and Thermal Power Plants produced 8.515 GWh, i.e. 60,1%. Hydro Power Plants in 2015 produced 1,7% less electricity in comparison to 2014 and Thermal Power Plants produced 2,4% less electricity in comparison to 2014. It resulted with 2,1% of electricity generation less in the transmission system than in 2014. The following diagrams show the structure of electricity generation through months for 2015 from facilities directly connected to transmission network of BiH as well as the contribution of the generation companies in electricity generation in BiH.

The structure of electricity consumption through the months in 2015



Companies shares in the electricity generation

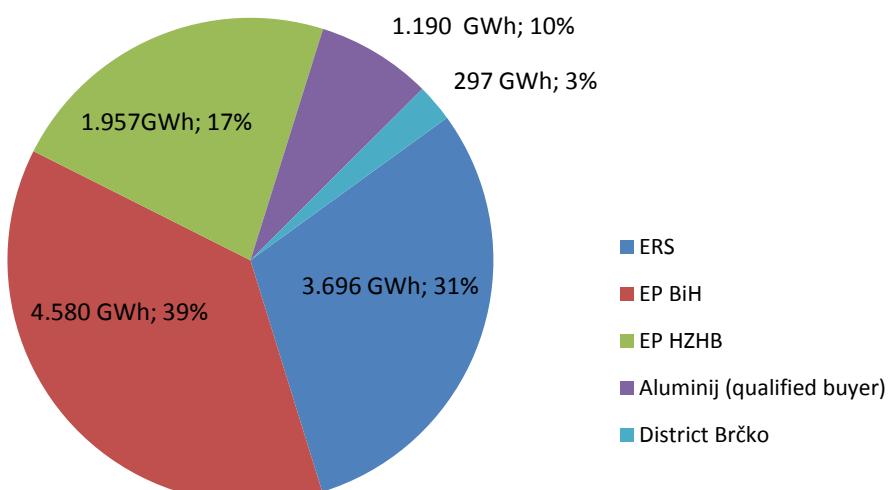


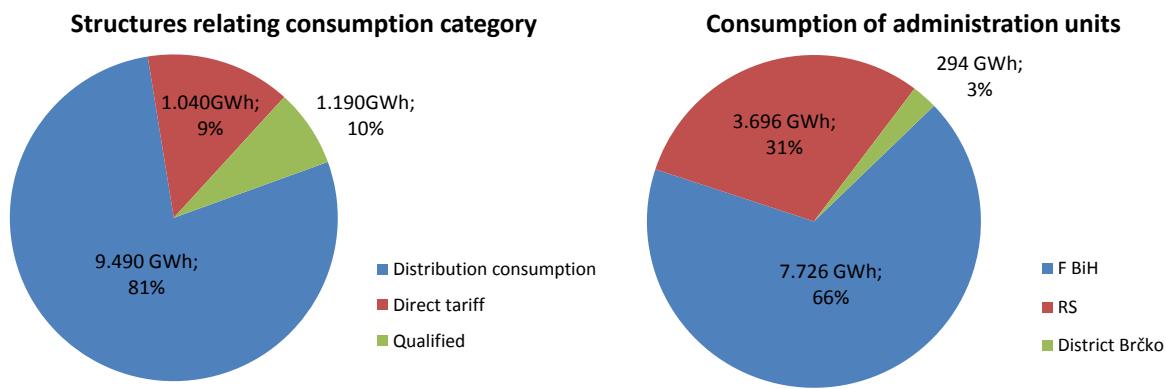
Electricity consumption in the transmission system

Electricity consumption in the transmission system of BiH in 2015 amounted 11.719 GWh and was 3% higher in comparison to 2014. Consumption of PSHHP Čapljina, in pumping regime, amounted 13.9 GWh in 2015. Distribution companies took over 9.490 GWh and customers directly connected to the transmission network took over 2.230 GWh of electricity. Out of that amount, the qualified buyers took over 1.190 GWh of electricity, which made 10,15 % of overall electricity consumption in the transmission network of BiH.

The following diagrams show the consumption of licensed companies as well as the structure of consumption in view of consumption categories and administrative units in BiH.

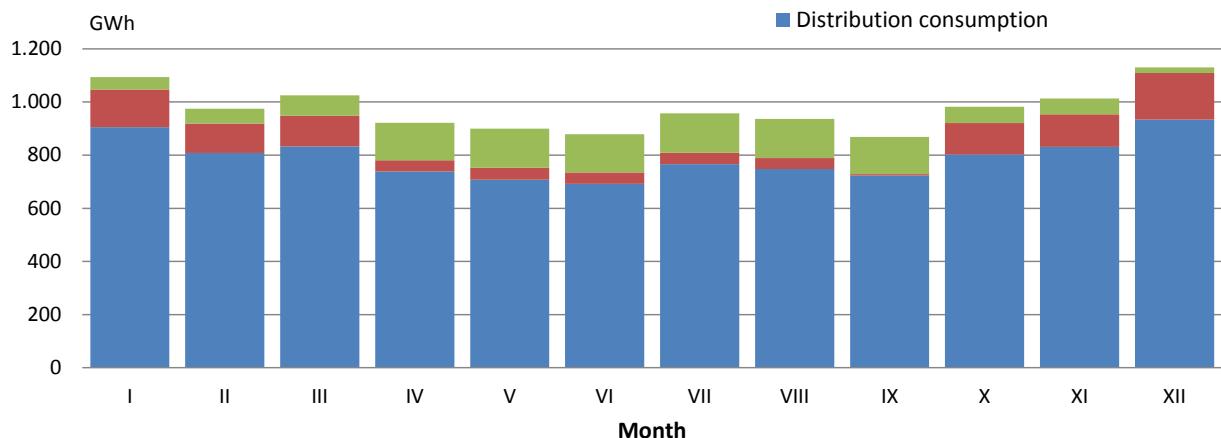
Consumption of electricity in BiH transmission system in 2015





The highest monthly consumption of 1.131 GWh in the transmission system in BiH in 2015 was measured in December 2014. The lowest monthly consumption was in June amounting 879 GWh of electricity. The following diagram shows monthly consumption in the transmission system in BiH.

The structure of electricity consumption in B&H through the months in 2015



Nominated power exchange with the neighbouring systems

According to the nominated exchange programmes, 3.747 GWh of electricity was imported in BiH power system and 5.884 GWh was exported from BiH power system during 2015. Out of that amount 2.439 GWh of electricity was transited over BiH transmission network. The balance amount of 2.137 GWh of exported energy indicates decrease of export by 24% compared with 2014.

Schedule exchange balance in 2015



Crossborder power flows

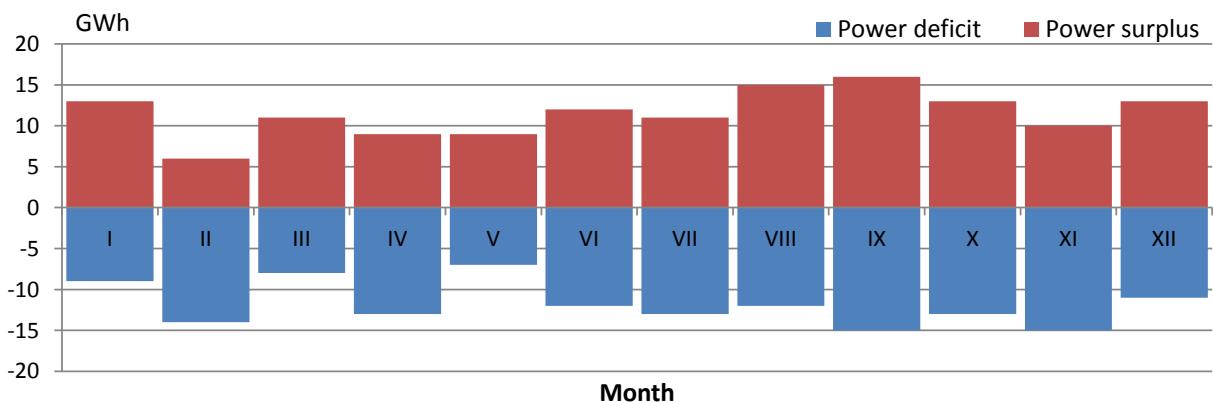
Physical power flows on tie-lines in 2015 provide the balance of BiH Control Area in amount of 2.136 GWh of exported energy. From the neighbouring systems 3.872 GWh was injected in BiH transmission system and other systems were delivered 6.007 GWh of electricity. Power flows on the borders with neighbouring systems were such that in 2015 on the border with Serbia 1.838 GWh was injected in BiH transmission system while on the border with Croatia 2.890 GWh was delivered and on the border with Montenegro 1.084 GWh was delivered.



Deviations from the nominated exchange programmes

Unintentional deviations from the nominated exchange programmes in 2015 were 141 GWh in total for the hours when there was deficit registered i.e. 138 GWh for the hours when energy surplus is registered in BiH Control Area. Maximum hourly electricity deficit in amount of 181 MWh/h was registered in September and electricity surplus of 194 MWh/h in December 2015.

Monthly deviations of ees BiH toward the interconnection



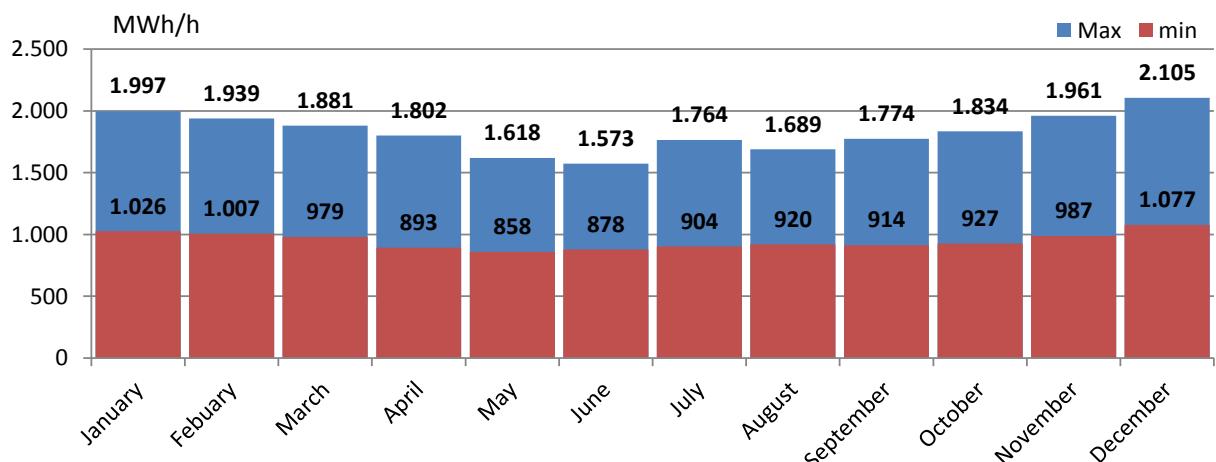
Specific values of hourly and daily consumption

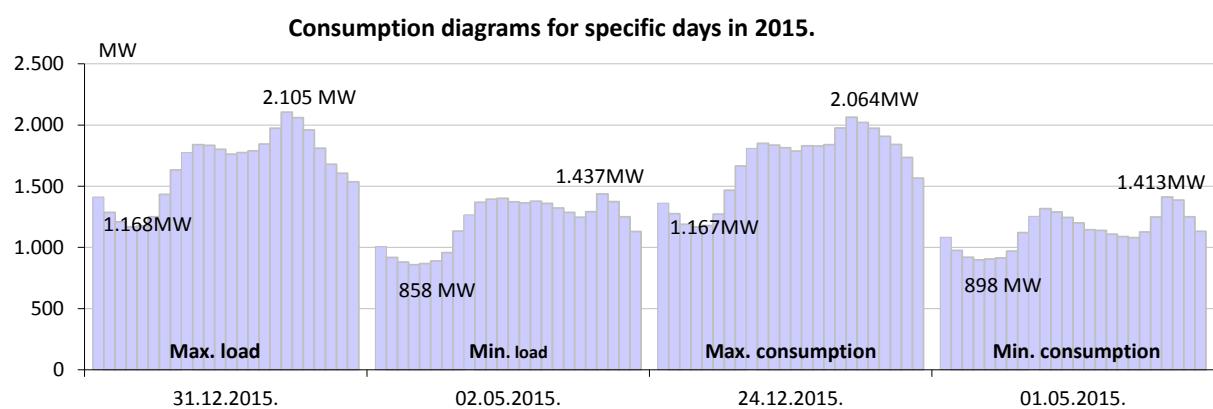
Maximum hourly load in 2015 in amount of 2.105 MWh/h was realised on December 31th in 18th hour. Maximum daily consumption in amount of 40.261 MWh of electricity was realised on December 24th. Minimum hourly load in amount of 858 MWh was registered on May 2nd in 4th hour and minimum daily consumption in amount of 27.211 MWh on May 1st, 2015 (Labour Day).

Specific consumption in 2015

Max. hourly load			Min. hourly load			Max. daily consumption		Min. daily consumption	
MWh	Day	Hour	MWh	Day	Hour	MWh	Day	MWh	Day
2.105	31.12.2015.	18:00	858	02.05.2015.	4:00	40.261	24.12.2015.	27.211	01.05.2015.

Monthly overview of the highest and lowest load in 2015





ELECTRICITY BALANCE FOR THE B&H TRANSMISSION SYSTEM IN 2014

	I GWh	II GWh	III GWh	IV GWh	V GWh	VI GWh	VII GWh	VIII GWh	IX GWh	X GWh	XI GWh	XII GWh	2015 GWh	2015/2014 %
Net generation														
(1) HPP	727,2	733,0	678,2	696,3	572,8	231,3	319,8	272,5	264,5	423,8	359,6	371,3	5.650,3	98,3%
(2) TPP	743,7	608,9	629,6	504,9	50,2	716,0	814,8	882,8	841,6	680,4	749,7	832,5	8,515,0	97,6%
(3) Generation TOTAL (1+2)	1.470,9	1.341,9	1.307,8	1.206,5	1.077,7	947,2	1.134,6	1.155,3	1.106,0	1.104,3	1.109,3	1.203,8	14.165,3	97,9%
(4) received from the distribution system	5,7	6,3	10,1	9,5	3,9	2,8	1,9	2,4	7,4	3,4	2,5	62,9	132,5%	
Physical Inside Flows														
(5) Croatia	121,1	91,8	103,9	70,5	101,7	70,7	62,1	102,1	98,9	151,9	94,0	150,3	1.219,0	62,4%
(6) Serbia	86,0	92,9	102,6	189,4	193,3	220,2	285,2	196,2	114,5	156,8	210,6	255,6	2,103,2	211,1%
(7) Montenegro	24,6	36,3	51,3	115,1	64,3	28,2	53,1	28,9	33,8	23,3	47,8	42,5	549,3	261,2%
(8) Inside flows TOTAL (5-7)	231,7	221,0	257,8	375,0	359,3	319,1	400,4	327,2	247,2	332,1	352,3	448,3	3.871,6	122,5%
(9) AVAILABLE ENERGY (3+4+8)	1.708,3	1.569,2	1.572,5	1.591,6	1.446,5	1.270,2	1.537,8	1.484,5	1.355,7	1.443,8	1.465,0	1.654,6	18.099,8	102,4%
Consumption														
(10) Distribution companies	905,1	808,6	833,3	738,4	707,9	692,0	766,5	747,5	723,2	802,6	831,0	933,6	9.489,8	104,3%
(11) Directly connected customers	189,0	165,8	191,9	183,7	191,9	186,6	190,9	189,1	181,3	179,8	182,6	196,8	2,229,5	97,8%
(12) Consumption TOTAL (10+11)	1.094,1	974,4	1.025,2	922,2	899,8	878,6	957,4	936,6	904,5	982,4	1.013,6	1.130,5	11.719,3	103,0%
Physical Outside Flows														
(13) Croatia	257,6	370,5	371,6	574,1	382,1	265,3	452,2	331,3	276,8	226,6	299,4	301,4	4.108,9	190,7%
(14) Serbia	38,4	22,3	21,0	6,0	22,7	20,0	13,4	18,5	33,8	32,8	16,8	19,3	265,1	43,3%
(15) Montenegro	288,8	166,3	124,7	54,5	115,4	81,2	84,4	166,6	115,9	176,2	100,3	159,0	1.633,3	50,6%
(16) Outside flows TOTAL (13..15)	584,8	559,1	517,3	624,6	520,3	366,5	550,0	516,3	426,5	435,6	416,4	479,8	6.007,3	100,2%
(17) Consumption of Pump	0,0	0,0	0,0	0,0	0,0	0,0	1,3	0,0	0,0	0,0	6,4	6,2	13,9	525.244,4%
(18) REQUIRED ENERGY (12+16+17)	1.678,8	1.533,6	1.542,5	1.556,8	1.420,1	1.245,1	1.420,1	1.508,7	1.453,0	1.331,0	1.417,9	1.436,4	1.616,5	17.740,4
Transmission losses														
(19) Transmission losses (9-8)	29,5	35,7	30,0	34,8	26,3	25,1	29,1	31,5	24,7	25,9	28,6	38,1	359,4	118,0%
(20) In relation to the available energy (19)/(9)	1,73%	2,27%	1,91%	1,82%	1,98%	1,89%	1,89%	1,82%	1,79%	1,79%	1,95%	2,30%	1,99%	
* Including consumption of qualified buyers														

NET GENERATION IN THE TRANSMISSION SYSTEM OF B&H IN 2015

GENERATION UNIT	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	2015	2015/14
	GW h	GW h	GW h	GW h	GW h	GW h	GW h	GW h	GW h	%				
HPP Jablanica	95,2	94,4	85,2	100,5	81,7	31,9	33,1	31,7	34,0	65,1	58,6	42,9	754,3	95,6%
HPP Grabovica	38,7	34,0	31,2	35,6	28,9	11,7	10,9	12,3	25,8	22,9	17,2	280,7	95,3%	
HPP Salakovac	57,0	49,9	45,7	51,3	43,8	12,8	11,7	9,7	45,0	30,3	18,9	386,0	86,1%	
HPP Višegrad	112,0	102,2	115,7	150,8	128,9	52,4	50,1	31,3	31,3	40,7	47,0	51,4	913,9	91,4%
HPP Trebinje 1	48,1	70,5	63,1	50,5	43,5	7,6	30,1	26,2	22,3	8,4	14,1	27,0	411,3	97,6%
HPP Trebinje 2	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
HPP Dubrovnik (G2)	83,7	76,8	79,6	74,0	56,3	6,2	90,7	91,8	82,3	53,4	53,4	83,8	832,0	116,7%
HPP Bočac	35,4	29,8	39,1	38,9	32,9	19,9	10,5	8,6	8,3	18,9	12,1	14,9	269,3	76,5%
HPP Rama	96,8	82,6	70,0	102,5	81,9	41,4	47,1	43,3	45,2	64,8	65,9	66,7	808,3	126,1%
HPP Mostar	29,7	28,2	26,1	28,2	24,7	9,9	9,0	7,9	7,9	26,5	19,2	12,9	230,2	87,3%
HPP Jajce 1	29,8	28,6	33,5	33,8	32,2	20,9	11,6	6,2	6,3	19,1	15,4	15,9	253,4	83,7%
HPP Jajce 2	9,1	9,2	10,6	10,9	10,0	7,2	6,6	4,7	4,3	6,6	5,1	5,9	90,2	88,9%
PS HPP Čapljina	58,2	81,0	46,8	2,8	0,0	8,2	7,5	0,1	0,5	29,5	7,8	10,0	252,5	146,1%
HPP Peć-Mlini	12,4	15,2	15,5	8,6	4,0	1,2	0,1	0,1	0,0	4,5	2,9	1,5	66,1	64,9%
HPP Mostarsko Blato*	20,9	30,6	16,0	7,9	3,9	0,0	0,0	0,0	0,0	15,5	5,0	2,3	102,1	70,5%
HPP TOTAL	727,2	733,0	678,2	696,3	572,8	231,3	319,8	272,5	264,5	423,8	359,6	371,3	5.650,3	98,3%
TPP Tuzla	286,8	256,9	322,8	200,4	157,7	219,4	290,2	348,5	323,5	248,0	320,5	340,6	3.315,5	94,8%
TPP Kakanj	140,3	98,1	135,2	136,4	149,8	182,0	231,0	208,4	197,0	107,2	207,6	1.900,9	90,8%	
TPP Ugljevik	171,9	136,1	169,3	83,7	49,3	158,9	159,6	176,4	164,5	175,8	161,4	145,5	1.752,4	110,1%
TPP Gacko	144,6	117,7	2,3	89,6	148,1	155,6	133,9	149,5	156,5	149,5	160,0	138,8	1.546,3	100,3%
TPP TOTAL	743,7	608,9	629,6	510,2	504,9	716,0	814,8	882,8	841,6	680,4	749,7	832,5	8.515,0	97,6%
GENERATION TOTAL	1.470,9	1.341,9	1.307,8	1.206,5	1.077,7	947,2	1.134,6	1.155,3	1.106,0	1.104,3	1.109,3	1.203,8	14.165,3	97,9%

ELECTRICITY CONSUMPTION IN THE TRANSMISSION SYSTEM

CONSUMPTION	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	2015	2015/2014
	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	%
Elektrokratina	181,3	162,8	164,9	138,3	137,1	128,7	141,4	133,2	136,4	157,0	164,1	181,8	1,827,0	104,4%
Elektrodoboj	52,8	51,5	54,3	45,8	49,4	49,9	54,3	54,7	46,8	56,0	58,4	56,8	630,8	106,4%
Elektrobijeljina	66,0	59,4	62,6	57,2	55,3	50,8	58,2	58,5	54,9	59,6	60,0	67,0	709,3	102,1%
Elektrodistribucija Pale	30,6	26,9	27,6	23,9	21,8	21,4	22,7	23,8	24,2	26,1	27,8	32,3	309,0	103,8%
Elektrohercegovina	20,9	16,6	17,5	15,6	14,8	16,6	16,8	15,3	16,4	17,9	20,8	20,8	206,8	99,2%
RITE ERS (Ugljevik i Gacko)	0,8	1,2	1,9	1,8	1,3	0,7	1,0	0,7	0,6	0,8	0,7	1,6	12,9	98,3%
ERS	352,5	318,5	318,8	284,4	280,5	266,4	294,2	287,6	278,2	315,7	329,0	360,2	3,695,9	103,9%
ED Sarajevo	142,4	124,5	130,8	113,8	104,5	101,4	108,8	105,2	103,6	119,0	126,3	149,4	1,429,6	105,4%
ED Tuzla	89,8	83,4	87,2	82,1	82,9	79,0	81,6	83,5	84,4	95,6	93,8	98,3	1,041,4	102,3%
ED Zenica	93,1	81,7	84,1	78,8	75,1	75,1	80,3	75,6	77,4	82,3	85,6	96,7	985,9	103,3%
ED Mostar	22,3	19,6	19,2	17,1	15,3	16,8	20,4	19,1	16,9	16,1	18,0	21,3	222,1	105,2%
ED Bihać	38,7	34,9	36,9	35,0	34,8	34,7	40,3	40,3	37,8	38,2	37,4	42,2	451,2	104,1%
Direct consumers	36,3	31,9	39,3	37,3	40,0	39,7	38,5	36,8	38,5	38,3	38,3	46,1	449,7	101,5%
EPBH	422,6	376,1	397,4	364,0	352,5	346,7	370,0	360,4	356,0	380,8	399,4	454,0	4,579,9	103,7%
ED Hercegovačko-Neretvanska	52,2	44,9	43,2	37,4	33,4	35,7	45,1	40,7	35,6	36,8	40,3	50,2	495,7	107,2%
ED Zapadnohercegovačka	29,5	25,7	26,5	24,9	21,2	22,0	25,4	23,9	21,8	24,1	24,6	28,4	297,9	105,9%
ED Herceg Bosanska	14,0	12,1	12,4	11,5	11,0	10,5	11,8	12,1	11,1	12,2	11,9	13,8	144,4	101,2%
ED Srednja Bosna	30,2	27,4	28,3	23,5	22,9	25,4	29,3	29,4	28,3	28,7	29,5	32,6	335,5	108,5%
ED Posavska	10,0	8,8	9,2	8,5	8,0	7,7	8,9	9,0	7,8	9,1	8,7	10,5	105,9	103,8%
Direct consumers	104,9	76,9	74,3	3,1	3,4	2,9	3,3	4,3	4,8	87,5	83,9	127,8	577,1	54,1%
EPHZHB	240,8	195,9	193,9	108,8	99,9	104,2	123,7	119,3	109,4	198,4	198,8	263,3	1,956,5	82,7%
Aluminij (qualified buyer)	29,9	40,3	59,5	125,0	130,1	126,6	131,0	130,2	123,4	44,7	43,2	4,3	988,3	136,8%
District Brčko	31,2	28,1	28,6	23,4	19,7	18,2	21,4	21,9	20,9	25,6	26,7	31,6	297,2	103,8%
Consumption the transmission system	1,094,1	974,4	1,025,2	922,2	899,8	878,6	957,4	936,6	904,5	982,4	1,013,6	1,130,5	11,719,3	103,0%
Pumping regime PSHPP Čapljina	0,0	0,0	0,0	0,0	0,0	0,0	1,3	0,0	0,0	0,0	6,4	6,2	13,9	
Takeover from the transmission system	1,094,1	974,4	1,025,2	922,2	899,8	878,6	958,8	936,6	904,5	982,4	1,020,0	1,136,7	11,733,2	103,1%

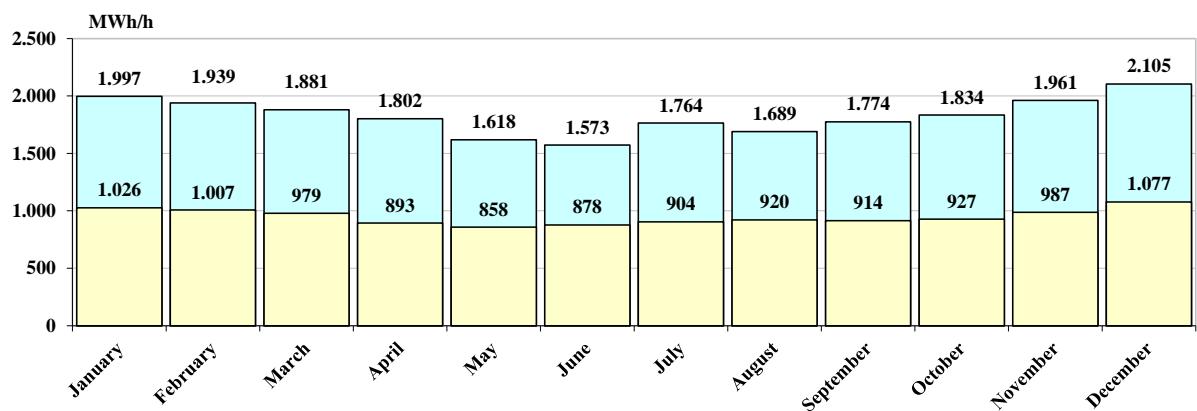
Data on specific hourly and daily consumption in 2015

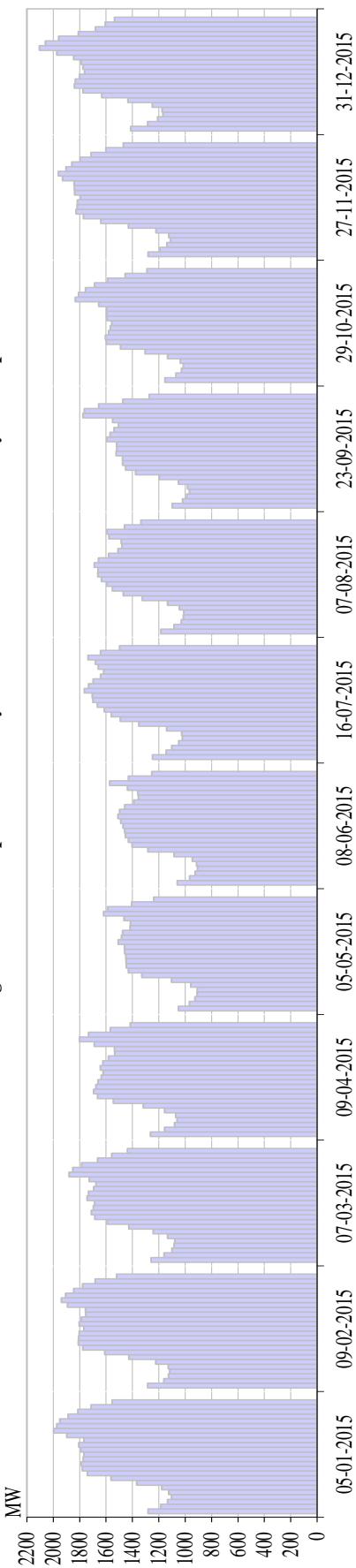
	MAX HOURLY CONSUMPTION			MIN HOURLY CONSUMPTION			MAX DAILY CONSUMPTION		MIN DAILY CONSUMPTION	
	MWh/h	DAY	HOUR	MWh/h	DAY	HOUR	MWh	DAY	MWh	DAY
January	1.997	05.01.2015.	18	1.026	22.01.2015.	4	39.383	01.01.2015.	35.162	18.01.2015.
February	1.939	09.02.2015.	19	1.007	23.02.2015.	4	38.708	09.02.2015.	35.139	22.02.2015.
March	1.881	07.03.2015.	19	979	26.03.2015.	4	37.111	12.03.2015.	31.056	29.03.2015.
April	1.802	09.04.2015.	21	893	27.04.2015.	4	36.775	08.04.2015.	29.634	26.04.2015.
May	1.618	05.05.2015.	21	858	02.05.2015.	4	31.459	20.05.2015.	27.211	01.05.2015.
June	1.573	08.06.2015.	22	878	01.06.2015.	4	31.899	11.06.2015.	29.136	21.06.2015.
July	1.764	16.07.2015.	15	904	05.07.2015.	6	35.485	16.07.2015.	29.973	12.07.2015.
August	1.689	07.08.2015.	15	920	24.08.2015.	4	33.779	14.08.2015.	29.244	23.08.2015.
September	1.774	23.09.2015.	20	914	28.09.2015.	4	33.337	23.09.2015.	29.539	06.09.2015.
October	1.834	29.10.2015.	18	927	05.10.2015.	4	35.051	28.10.2015.	30.250	04.10.2015.
November	1.961	27.11.2015.	18	987	23.11.2015.	4	38.918	27.11.2015.	32.953	22.11.2015.
December	2.105	31.12.2015.	18	1.077	03.12.2015.	4	40.261	24.12.2015.	36.116	06.12.2015.

Specific consumption in 2015

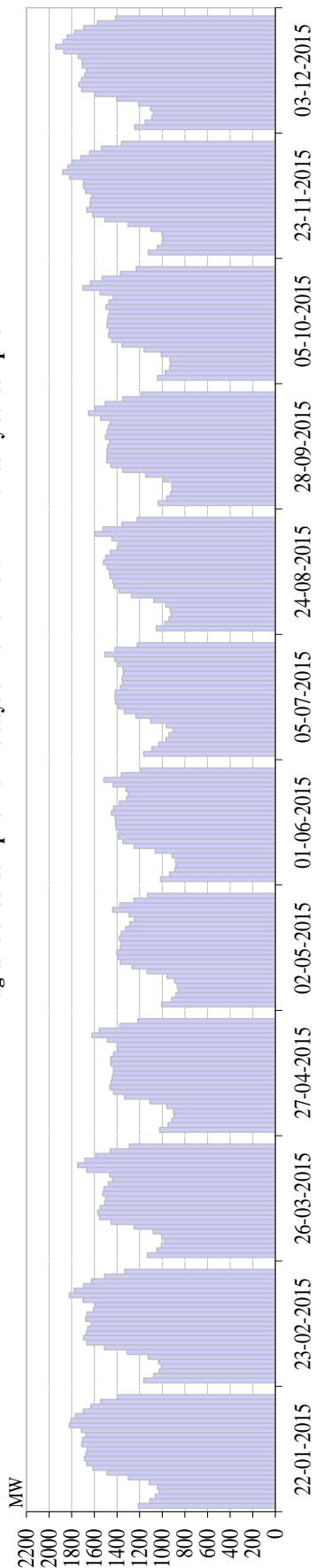
Max. hourly load			Min. hourly load			Max. daily consumption		Min. daily consumption	
MWh	Day	Hour	MWh	Day	Hour	MWh	Day	MWh	Day
2.105	31.12.2015.	18:00	858	02.05.2015.	4:00	40.261	24.12.2015.	27.211	01.05.2015.

Minimum and maximum hourly load through the months in 2015



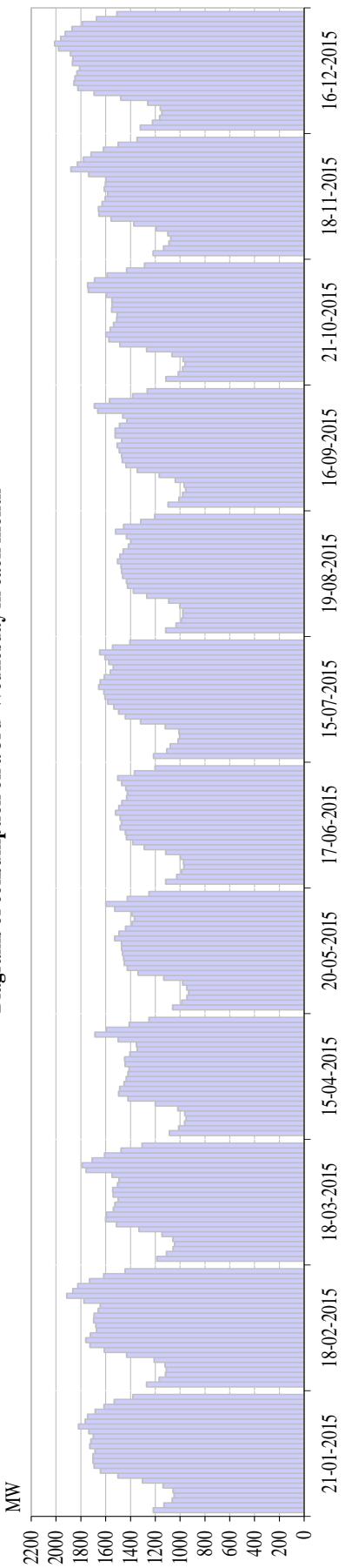
Diagrams of consumption for the days of the months with max hourly consumption**Diagrams of consumption for the days of the months with max hourly consumption**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Σ
January	1281	1.185	1.133	1.103	1.125	1.178	1.366	1.562	1.742	1.781	1.787	1.774	1.767	1.792	1.807	1.767	1.897	1.997	1.974	1.950	1.887	1.814	1.713	1.553	38.936
February	1.284	1.162	1.127	1.118	1.129	1.223	1.427	1.610	1.777	1.809	1.808	1.802	1.768	1.804	1.787	1.754	1.756	1.893	1.939	1.907	1.844	1.778	1.681	1.521	38.708
March	1.160	1.100	1.083	1.079	1.133	1.242	1.427	1.593	1.685	1.712	1.696	1.688	1.743	1.733	1.695	1.677	1.727	1.881	1.852	1.785	1.663	1.556	1.437	36.607	
April	1.263	1.157	1.081	1.061	1.072	1.156	1.318	1.544	1.664	1.694	1.676	1.660	1.636	1.622	1.643	1.625	1.582	1.534	1.536	1.689	1.802	1.733	1.567	1.416	35.731
May	1.051	968	927	910	908	958	1.103	1.328	1.430	1.446	1.447	1.450	1.458	1.460	1.508	1.484	1.474	1.419	1.414	1.464	1.618	1.588	1.406	1.239	31.458
June	1.059	966	924	907	914	945	1.084	1.283	1.402	1.431	1.454	1.458	1.471	1.488	1.510	1.497	1.459	1.390	1.355	1.358	1.438	1.573	1.431	1.253	31.050
July	1.247	1.144	1.102	1.048	1.020	1.025	1.141	1.352	1.491	1.561	1.614	1.666	1.699	1.704	1.764	1.733	1.697	1.641	1.619	1.659	1.681	1.736	1.642	1.498	35.485
August	1.184	1.084	1.029	1.015	1.010	1.043	1.134	1.326	1.469	1.552	1.593	1.634	1.663	1.661	1.689	1.657	1.579	1.509	1.479	1.485	1.577	1.594	1.460	1.335	33.760
September	1.099	1.020	988	968	983	1.050	1.196	1.376	1.451	1.474	1.524	1.518	1.519	1.594	1.570	1.539	1.506	1.550	1.774	1.764	1.656	1.472	1.271	33.337	
October	1.152	1.071	1.029	1.013	1.037	1.133	1.305	1.490	1.597	1.604	1.580	1.567	1.556	1.593	1.655	1.834	1.808	1.755	1.687	1.588	1.455	1.290	34.988		
November	1.281	1.191	1.139	1.113	1.124	1.221	1.430	1.639	1.772	1.827	1.818	1.817	1.794	1.838	1.840	1.842	1.950	1.961	1.904	1.859	1.796	1.714	1.600	1.469	38.918
December	1.412	1.285	1.210	1.168	1.176	1.250	1.433	1.633	1.775	1.839	1.833	1.802	1.762	1.775	1.788	1.844	1.974	2.105	2.060	1.959	1.810	1.680	1.606	1.537	39.716

Diagrams of consumption for the days of the months with min. hourly consumption**Diagrams of consumption for the days of the months with min. hourly consumption**

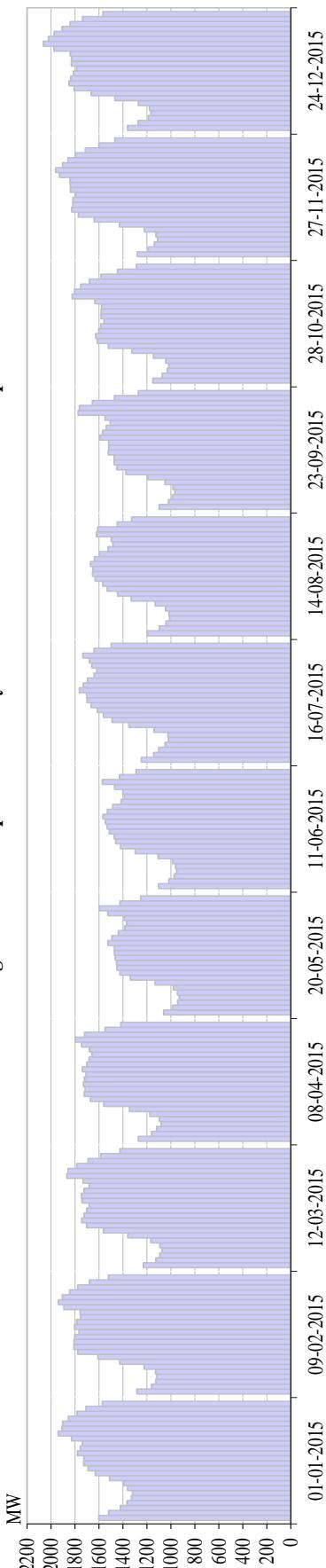
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Σ		
January	22-01-2015	1210	1.109	1.060	1.026	1.044	1.115	1.299	1.487	1.613	1.667	1.687	1.674	1.661	1.711	1.703	1.675	1.714	1.820	1.806	1.768	1.698	1.628	1.546	1.396	36.116
February	23-02-2015	1.163	1.076	1.025	1.007	1.031	1.125	1.310	1.510	1.665	1.693	1.671	1.658	1.627	1.676	1.663	1.607	1.593	1.699	1.821	1.777	1.695	1.624	1.508	1.331	35.555
March	26-03-2015	1.132	1.047	1.007	979	1.003	1.079	1.249	1.451	1.554	1.569	1.547	1.509	1.498	1.524	1.514	1.474	1.441	1.462	1.668	1.747	1.683	1.587	1.460	1.289	33.474
April	27-04-2015	1.023	948	916	893	902	959	1.108	1.333	1.430	1.462	1.451	1.441	1.432	1.430	1.451	1.456	1.429	1.396	1.398	1.484	1.619	1.556	1.375	1.214	31.104
May	02-05-2015	1.006	917	881	858	867	890	958	1.134	1.266	1.369	1.395	1.401	1.372	1.364	1.378	1.360	1.322	1.286	1.246	1.291	1.437	1.375	1.250	1.130	28.753
June	01-06-2015	1.013	934	889	878	882	913	1.061	1.248	1.347	1.387	1.381	1.409	1.410	1.415	1.448	1.429	1.379	1.316	1.300	1.320	1.433	1.516	1.360	1.188	29.854
July	05-07-2015	1.163	1.091	1.031	966	939	904	962	1.101	1.233	1.335	1.388	1.411	1.417	1.413	1.369	1.352	1.354	1.343	1.346	1.395	1.418	1.507	1.415	1.219	30.073
August	24-08-2015	1.051	978	939	920	929	968	1.073	1.270	1.380	1.426	1.437	1.461	1.466	1.487	1.518	1.498	1.457	1.396	1.379	1.443	1.596	1.521	1.355	1.222	31.172
September	28-09-2015	1.036	960	927	914	914	986	1.146	1.349	1.454	1.491	1.487	1.481	1.464	1.501	1.488	1.474	1.461	1.543	1.652	1.595	1.503	1.348	1.183	31.844	
October	05-10-2015	1.041	975	935	927	932	1.009	1.162	1.354	1.445	1.473	1.467	1.488	1.483	1.477	1.464	1.497	1.469	1.432	1.549	1.699	1.634	1.531	1.369	1.230	32.042
November	23-11-2015	1.123	1.042	1.001	987	1.002	1.100	1.301	1.507	1.613	1.666	1.639	1.634	1.622	1.676	1.695	1.696	1.819	1.878	1.834	1.795	1.718	1.641	1.535	1.359	35.884
December	03-12-2015	1.242	1.149	1.091	1.077	1.104	1.208	1.402	1.595	1.712	1.738	1.712	1.685	1.669	1.706	1.710	1.743	1.870	1.941	1.841	1.774	1.694	1.571	1.411	37.518	

Diagrams of consumption on a 3rd Wednesday in each month



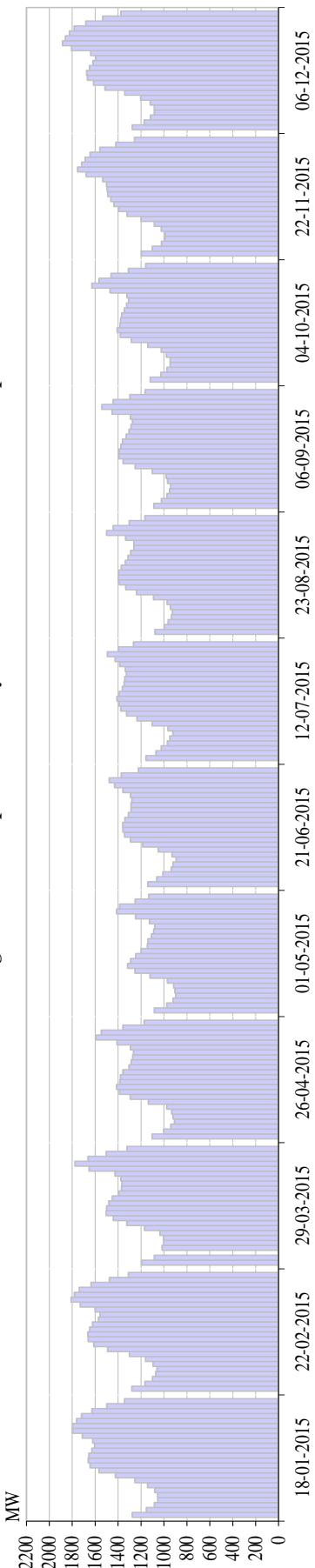
Diagrams of consumption on a 3rd Wednesday in each month

	MWh																								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Σ
January	1215	1130	1064	1048	1056	1137	1302	1500	1642	1693	1702	1701	1685	1728	1719	1700	1734	1818	1765	1745	1684	1612	1530	1380	36293
February	1270	1168	1118	1110	1121	1209	1431	1611	1726	1759	1722	1674	1679	1697	1693	1660	1645	1776	1913	1864	1824	1730	1615	1442	37457
March	1187	1109	1056	1044	1058	1146	1332	1513	1601	1595	1538	1525	1499	1538	1543	1505	1492	1548	1757	1789	1709	1609	1476	1307	34475
April	1087	1011	964	952	961	1018	1201	1420	1495	1487	1451	1434	1421	1412	1442	1446	1404	1346	1351	1498	1487	1409	1250	31743	
May	1061	987	944	931	946	980	1131	1338	1425	1450	1455	1464	1471	1472	1526	1492	1440	1387	1368	1389	1527	1598	1425	1251	31459
June	1115	1028	988	969	973	997	1116	1289	1382	1433	1441	1484	1473	1483	1519	1493	1470	1431	1426	1439	1471	1503	1368	1201	31490
July	1213	1108	1079	1079	1017	1003	1009	1119	1319	1441	1495	1535	1584	1606	1615	1656	1644	1611	1561	1574	1605	1648	1544	1404	33930
August	1117	1032	990	978	978	1003	1091	1267	1376	1424	1433	1461	1470	1476	1505	1484	1458	1416	1397	1432	1519	1455	1317	1205	31285
September	1096	1009	980	955	967	1039	1169	1345	1436	1466	1472	1490	1507	1471	1523	1524	1429	1462	1663	1691	1568	1382	1264	32398	
October	1114	1014	979	960	976	1065	1270	1485	1573	1599	1564	1535	1510	1508	1552	1549	1550	1594	1740	1745	1690	1588	1430	1288	33879
November	1218	1134	1089	1076	1099	1192	1373	1556	1654	1658	1628	1604	1583	1610	1602	1599	1737	1881	1828	1838	1780	1717	1617	1498	3346
December	1321	1223	1164	1148	1159	1260	1477	1692	1824	1855	1848	1830	1810	1868	1864	1884	1979	2012	1963	1926	1871	1789	1675	1509	39952

Diagrams of consumption for the days of the months with max. consumption**Diagrams of consumption for the days of the months with max. consumption**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Σ	
January	01-01-2015	1602	1.519	1.423	1.367	1.330	1.321	1.362	1.397	1.513	1.631	1.692	1.727	1.726	1.779	1.757	1.738	1.830	1.941	1.903	1.855	1.782	1.708	1.572	39.383	
February	09-02-2015	1.284	1.162	1.127	1.118	1.129	1.223	1.427	1.610	1.777	1.809	1.808	1.802	1.768	1.804	1.787	1.754	1.756	1.893	1.939	1.907	1.844	1.778	1.681	1.521	38.708
March	12-03-2015	1.229	1.127	1.094	1.075	1.092	1.168	1.360	1.563	1.703	1.744	1.725	1.704	1.683	1.743	1.745	1.725	1.683	1.733	1.868	1.858	1.784	1.691	1.587	1.425	37.111
April	08-04-2015	1.272	1.159	1.119	1.082	1.096	1.176	1.345	1.559	1.672	1.722	1.716	1.730	1.721	1.709	1.739	1.702	1.682	1.659	1.681	1.746	1.797	1.722	1.550	1.419	36.775
May	20-05-2015	1.061	987	944	931	946	980	1.131	1.338	1.425	1.450	1.455	1.464	1.471	1.472	1.526	1.492	1.440	1.387	1.368	1.389	1.527	1.598	1.425	1.251	31.459
June	11-06-2015	1.103	1.016	972	954	962	986	1.107	1.297	1.421	1.462	1.473	1.513	1.532	1.547	1.568	1.551	1.485	1.416	1.388	1.401	1.470	1.572	1.430	1.291	31.899
July	16-07-2015	1.247	1.144	1.102	1.048	1.020	1.025	1.141	1.352	1.491	1.561	1.614	1.666	1.699	1.704	1.764	1.733	1.697	1.641	1.619	1.659	1.681	1.736	1.642	1.498	35.485
August	14-08-2015	1.198	1.096	1.042	1.011	1.017	1.044	1.132	1.332	1.445	1.531	1.570	1.633	1.653	1.650	1.671	1.638	1.596	1.525	1.484	1.499	1.623	1.611	1.449	1.329	33.779
September	23-09-2015	1.099	1.030	988	968	983	1.050	1.196	1.376	1.451	1.474	1.474	1.518	1.519	1.594	1.570	1.539	1.506	1.550	1.774	1.764	1.656	1.472	1.271	33.337	
October	28-10-2015	1.151	1.074	1.030	1.018	1.043	1.146	1.324	1.523	1.615	1.627	1.602	1.584	1.559	1.583	1.582	1.577	1.634	1.824	1.805	1.753	1.681	1.582	1.446	1.289	35.051
November	27-11-2015	1.281	1.191	1.139	1.113	1.124	1.221	1.430	1.639	1.772	1.827	1.818	1.817	1.794	1.838	1.840	1.842	1.930	1.961	1.904	1.859	1.796	1.714	1.600	1.469	38.918
December	24-12-2015	1.362	1.276	1.189	1.167	1.179	1.271	1.468	1.665	1.809	1.851	1.836	1.814	1.787	1.831	1.829	1.840	1.976	2.065	2.022	1.974	1.908	1.842	1.736	1.566	40.261

Diagrams of consumption for the days of the months with min. consumption



Dijagram potrošnje za dan u mjesecu sa min. potrošnjom

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Σ	
Januar	18-01-2015	1276	1.154	1.085	1.054	1.055	1.081	1.143	1.253	1.424	1.565	1.645	1.660	1.655	1.628	1.605	1.621	1.712	1.797	1.795	1.762	1.720	1.628	1.499	1.344	35.162
Februar	22-02-2015	1.280	1.166	1.101	1.071	1.060	1.095	1.160	1.302	1.491	1.611	1.660	1.664	1.648	1.624	1.572	1.557	1.600	1.729	1.810	1.782	1.738	1.635	1.475	1.309	35.139
Mart	29-03-2015	1.195	1.084	0	0.017	1.002	1.004	1.034	1.169	1.324	1.441	1.504	1.500	1.480	1.450	1.394	1.370	1.367	1.375	1.427	1.653	1.776	1.662	1.504	1.323	31.056
April	26-04-2015	1.104	1.002	940	908	920	933	975	1.135	1.293	1.388	1.413	1.384	1.380	1.358	1.304	1.285	1.273	1.266	1.292	1.410	1.594	1.546	1.358	1.172	29.634
Maj	01-05-2015	1.083	976	920	898	905	915	971	1.122	1.254	1.317	1.290	1.245	1.200	1.144	1.139	1.109	1.089	1.080	1.126	1.248	1.412	1.386	1.251	1.131	27.211
Juni	21-06-2015	1.140	1.063	1.009	937	920	894	930	1.049	1.185	1.291	1.344	1.358	1.360	1.341	1.310	1.287	1.286	1.279	1.293	1.359	1.430	1.477	1.372	1.223	29.136
Juli	12-07-2015	1.156	1.070	1.023	970	949	922	965	1.104	1.235	1.326	1.378	1.392	1.410	1.389	1.363	1.347	1.342	1.327	1.336	1.385	1.426	1.493	1.397	1.266	29.973
August	23-08-2015	1.078	996	962	935	926	944	971	1.091	1.239	1.333	1.390	1.399	1.395	1.373	1.336	1.314	1.291	1.262	1.261	1.335	1.499	1.444	1.303	1.166	29.244
Septembar	06-09-2015	1.088	1.022	974	951	942	968	981	1.102	1.251	1.355	1.394	1.392	1.375	1.361	1.329	1.305	1.286	1.274	1.293	1.451	1.540	1.444	1.297	1.164	29.539
Oktobar	04-10-2015	1.119	1.028	974	945	945	979	1.023	1.141	1.285	1.381	1.407	1.383	1.378	1.369	1.346	1.325	1.308	1.321	1.469	1.628	1.566	1.462	1.310	1.159	30.250
Novembar	22-11-2015	1.196	1.101	1.021	990	989	1.024	1.084	1.200	1.321	1.394	1.436	1.462	1.490	1.495	1.499	1.535	1.678	1.752	1.716	1.687	1.645	1.560	1.421	1.257	32.953
Decembar	06-12-2015	1.277	1.172	1.118	1.085	1.119	1.203	1.341	1.515	1.614	1.667	1.674	1.649	1.619	1.594	1.639	1.806	1.884	1.859	1.824	1.783	1.681	1.533	1.376	36.116	

SCHEDULE EXCHANGE WITH NEIGHBOURING POWER SYSTEMS

NOMINATED EXCHANGE	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	2015
	GWh												
BiH <- HR (HEP-OPS)	120,2	108,2	91,5	68,7	79,1	120,6	111,6	98,1	150,3	133,3	70,5	102,6	1.254,9
BiH <- SR (EMS)	106,8	86,9	87,6	188,9	170,1	234,8	209,9	198,0	159,9	160,3	135,2	123,6	1.862,1
BiH <- CG (EPCG)	15,9	49,5	23,3	72,6	85,1	12,2	46,8	26,4	22,8	13,4	103,9	157,9	629,8
(1) Import BiH	242,9	244,7	202,5	330,3	334,4	367,7	368,3	322,4	333,1	307,0	309,6	384,1	3.746,8
BiH -> HR (HEP-OPS)	181,5	234,9	223,1	377,6	325,6	261,6	341,3	254,1	259,9	170,9	145,9	175,9	2.952,3
BiH -> SR (EMS)	204,6	217,5	133,2	114,7	76,7	40,9	66,6	62,7	125,1	74,4	88,7	72,6	1.277,6
BiH -> CG (EPCG)	206,3	137,2	103,3	98,5	92,0	112,7	111,2	192,6	126,5	164,5	143,7	165,9	1.654,3
(2) Export BiH	592,4	589,5	459,6	590,8	494,3	415,3	519,1	509,4	511,4	409,8	378,2	414,3	5.884,2
(3) Balance BIH (2) - (1)	349,5	344,9	257,1	260,5	160,0	47,6	150,8	187,0	178,4	102,8	68,6	30,2	2.137,4
Balance HR (HEP-OPS)	61,3	126,7	131,5	308,9	246,5	141,0	229,8	156,0	109,5	37,6	75,4	73,2	1.697,4
Balance SR (EMS)	97,8	130,5	45,6	-74,2	-93,5	-193,9	-143,3	-135,3	-34,8	-85,9	-46,6	-51,0	-584,5
Balance CG (EPCG)	190,4	87,7	80,0	25,9	6,9	100,5	64,4	166,2	103,6	151,1	39,8	8,0	1.024,5
Transit	198,0	199,3	148,7	300,8	229,2	229,4	220,1	187,1	165,1	182,2	169,8	209,6	2.439,2
Unutrašnja trgovina													

PHYSICAL EXCHANGE WITH NEIGHBOURING POWER SYSTEMS

PHYSICAL FLOWS	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	2015
	GWh												
BiH <- HR (HEP-OPS)	121,1	91,8	103,9	70,5	101,7	70,7	62,1	102,1	98,9	151,9	94,0	150,3	1.219,0
BiH <- SR (EMS)	86,0	92,9	102,6	189,4	193,3	220,2	285,2	196,2	114,5	156,8	210,6	255,6	2.103,2
BiH <- CG (EPCG)	24,6	36,3	51,3	115,1	64,3	28,2	53,1	28,9	33,8	23,3	47,8	42,5	549,3
(1) Import BiH	231,7	221,0	257,8	375,0	359,3	319,1	400,4	327,2	247,2	332,1	352,3	448,3	3.871,6
BiH -> HR (HEP-OPS)	257,6	370,5	371,6	574,1	382,1	265,3	452,2	331,3	276,8	226,6	299,4	301,4	4.108,9
BiH -> SR (EMS)	38,4	22,3	21,0	6,0	22,7	20,0	13,4	18,5	33,8	32,8	16,8	19,3	265,1
BiH -> CG (EPCG)	288,8	166,3	124,7	54,5	115,4	81,2	84,4	166,6	115,9	176,2	100,3	159,0	1.633,3
(2) Export BiH	584,8	559,1	517,3	634,6	520,3	366,5	550,0	516,3	426,5	435,6	416,4	479,8	6.007,3
(3) Balance BIH (2) - (1)	353,0	338,1	259,5	259,6	161,0	47,4	149,6	189,1	179,3	103,5	64,1	31,5	2.135,7
Balance HR (HEP-OPS)	136,4	278,6	267,7	503,6	280,4	194,6	390,1	229,2	177,9	74,7	205,4	151,2	2.889,8
Balance SR (EMS)	-47,6	-70,5	-81,5	-183,4	-170,6	-200,2	-271,8	-177,7	-80,7	-124,0	-193,8	-236,2	-1.838,1
Balance CG (EPCG)	264,2	130,0	73,4	-60,6	51,2	53,0	31,3	137,6	82,0	152,8	52,5	116,6	1.084,0

Deviation of BiH power system in 2015

Month	Deviation - Power deficit			Deviation - Power surplus			Deviation - Total		
	Max. hourly	Average	Total	Max. hourly	Average	Total	Max. hourly	Average	Total
	MWh/h	MWh/h	MWh	MWh/h	MWh/h	MWh	MWh/h	MWh/h	MWh
January	-172	-27	-9.079	144	31	12.768	-172	5	3.689
February	-152	-32	-13.733	141	25	5.922	-152	-12	-7.811
March	-152	-20	-7.901	136	30	10.552	-152	4	2.651
April	-116	-29	-12.565	123	31	9.202	123	-5	-3.363
May	-161	-18	-6.921	99	26	9.117	-161	3	2.196
June	-155	-32	-11.649	146	34	12.027	-155	1	379
July	-136	-33	-13.043	141	32	11.115	141	-3	-1.928
August	-165	-33	-11.866	175	39	14.967	175	4	3.101
September	-181	-39	-15.139	183	47	15.734	183	1	596
October	-146	-31	-12.754	165	41	13.355	165	1	601
November	-172	-37	-14.720	160	31	10.090	-172	-6	-4.630
December	-116	-31	-11.205	194	33	12.736	194	2	1.532
2015	-181	-30	-140.574	194	33	137.585	194	0	-2.988