

REPORT
ON POWER FLOWS IN THE TRANSMISSION SYSTEM
IN BOSNIA AND HERZEGOVINA IN 2012

Sarajevo, February 2013

This Report presents power flows in the transmission system in BiH for 2012. It includes the main review of the power flows and specific indicators and their comparison with the previous year.

Electricity balance in the transmission system

Total available electricity in the transmission system in 2012 was 16.752 GWh. In the transmission system there were totally 12.234 GWh of produced electricity while 38 GWh were injected in the transmission system from the distribution system. From the neighbouring systems it was received 4.481 GWh of electricity.

Out of totally available electricity in the transmission system, distribution companies took over 9.246 GWh, 66 GWh was used for pumping, buyers directly connected to the transmission system took over 2.607 GWh, neighbouring systems were delivered 4.525 GWh, while the transmission losses amounted 308 GWh i.e. 1,84% of totally available electricity in the transmission system.

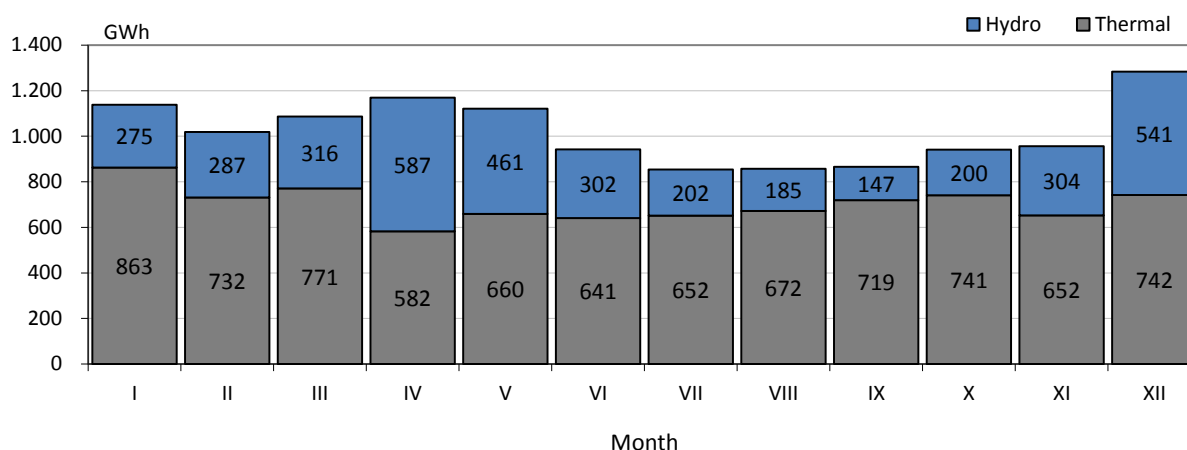
Electricity generation in the transmission system

Out of totally produced 12.234 GWh of electricity in the transmission system in 2012, Hydro Power Plants produced 3.808 GWh, i.e. 31,1% and the Thermal Power Plants produced 8.426 GWh, i.e. 68,9%. In the process PSHPP Čapljina took over 66 GWh from the transmission system and did that in January and February when this power plant had worked mostly in pumping regime.

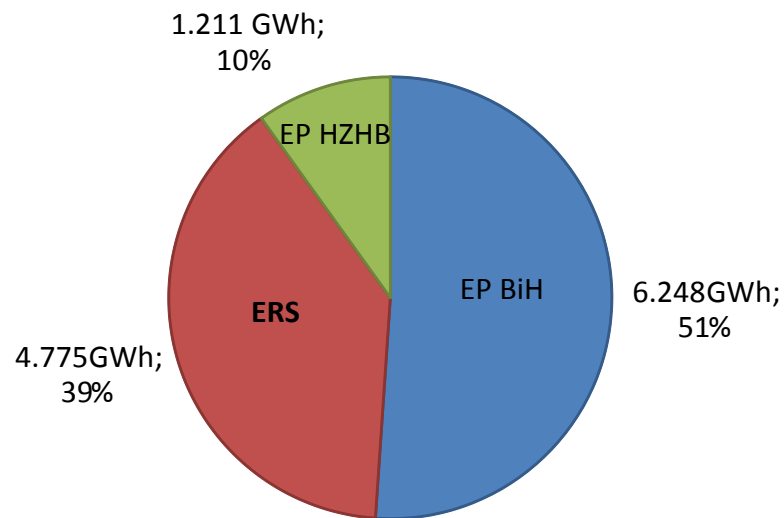
Generally speaking, adverse hydro conditions caused less generation in the Hydro Power Plants in relation to 2011 and specifically to 2010 which, in terms of hydrology, was very convenient year. As a consequence Hydro Power Plants in 2012 produced 88,8% of electricity generated in 2011. The Thermal Power Plants also produced 10,4% less electricity than in 2011 so that the transmission system in BiH had totally 10,7% less produced electricity than in 2011.

The following diagrams show the structure of electricity generation in the transmission system in BiH presented through months for 2012 year as well as the generation companies' contribution in electricity generation in BiH.

The structure of electricity consumption through the months in 2012



Companies' shares in the electricity

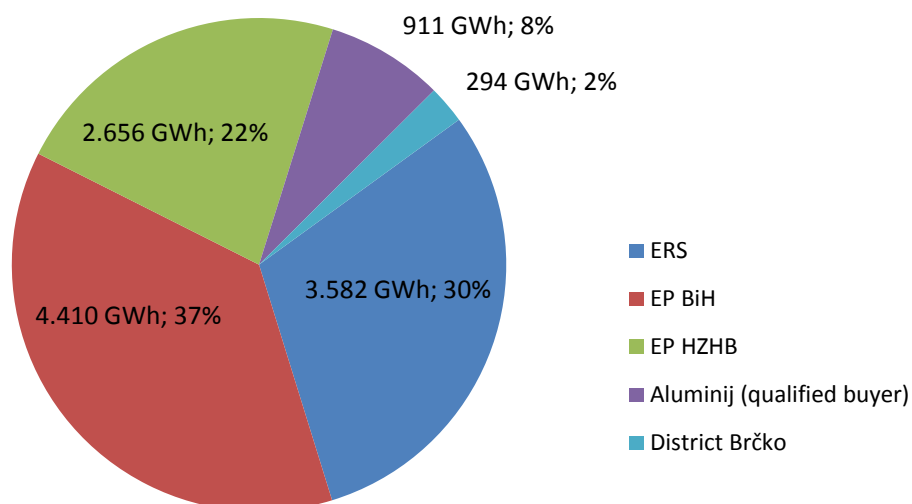


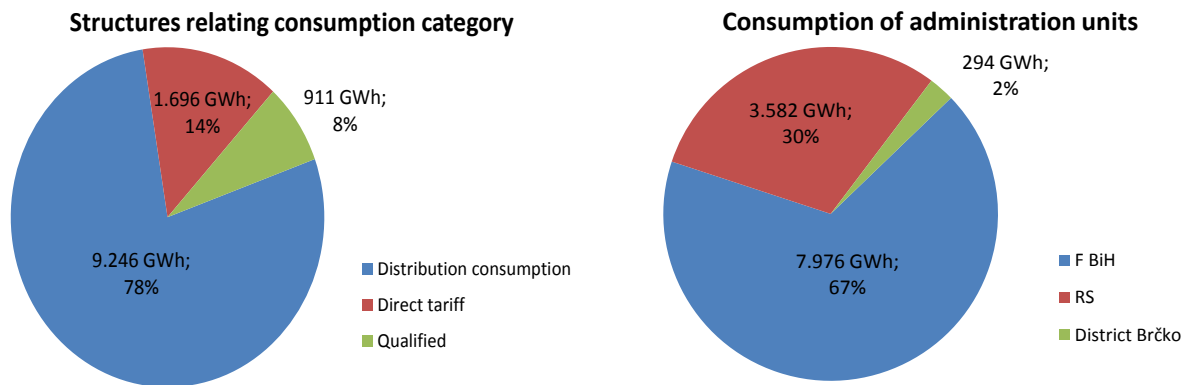
Electricity consumption in the transmission system

Electricity consumption in the transmission system in BiH in 2012 was 11.853 GWh and it is 0,2% smaller in comparison to 2011. Additionally, in 2012 PSHPP Čapljina took over 66 GWh of electricity from the transmission system. Distribution companies took over 9.246 GWh from the transmission system and directly connected buyers took 2.607 GWh of electricity. Out of that amount, Aluminij, as a qualified buyer, took over 911 GWh which made 7,7 % of total electricity consumption in the transmission system in BiH.

The following diagrams show licensed companies' consumption and the structure of consumption regarding the consumption categories and administration units in BiH.

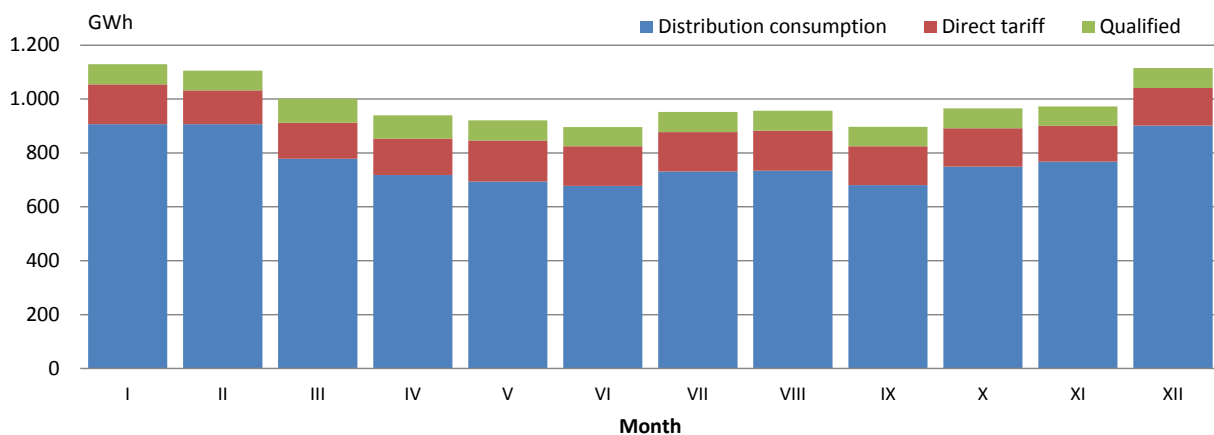
Consumption of electricity in BiH transmission system in 2012





The highest monthly consumption in the transmission system in BiH was in January and it was 1.129 GWh. The smallest monthly consumption was in June and it was 897 GWh. The following diagram shows monthly electricity consumption in the transmission system in BiH.

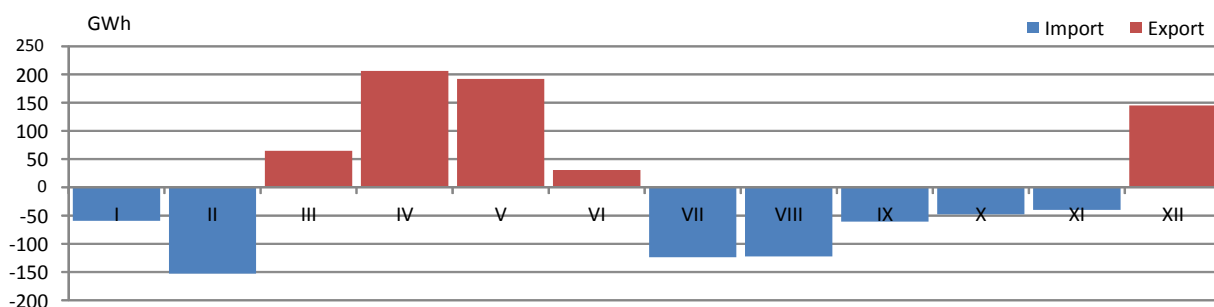
The structure of electricity consumption through the months in 2012



Declared power exchange with the neighbouring systems

According to nominated exchange programmes 3.653 GWh of electricity was imported in BiH power system in 2012, and 3.686 GWh of electricity was exported from the power system of BiH. Out of that amount, in 2012, 2.111 GWh were transmitted over BiH transmission network. Balance out of 33 GWh of exported electricity makes 2,2% in relation to electricity exported in 2011.

Balance of scheduled exchange in BIH in 2012



Crossborder power flows

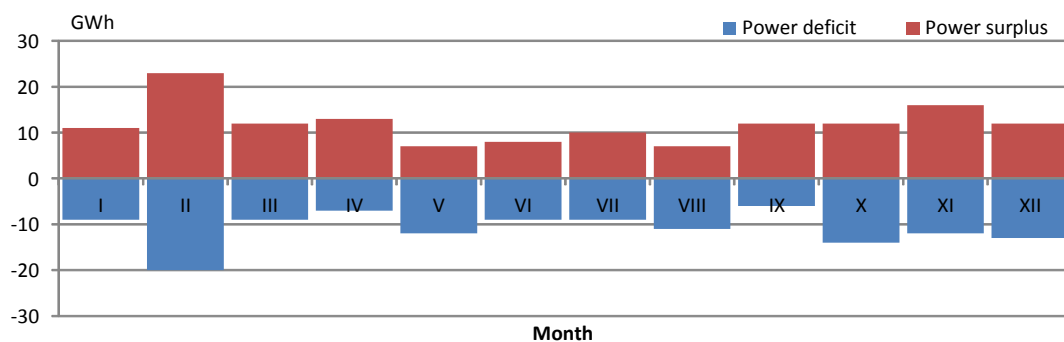
Realized physical power flows over interconnection tie-lines in 2012 provide balance of exchanged power of BiH Control Area in amount of 44 GWh in the direction of export. From the neighbouring power systems 4.481 GWh were imported in BiH system and in other systems 4.525 GWh of electricity were exported. Relating the power flows at the borders with neighbouring systems in 2012, 1.222 GWh were imported at the border with Serbia, 581 GWh were imported at the border with Croatia and 1.846 GWh were exported at the border with Montenegro.



Deviations from the nominated exchanges programmes

Unintentional deviations from the scheduled programmes in 2012 totally amounted to 132 GWh for the hours for which the deficit was registered i.e. total 145 GWh for the hours when there was electricity surplus registered in BiH Control area. Maximum hourly electricity deficit in amount of 325 MWh/h was registered in October and electricity surplus of 266 MWh/h in February 2012.

Monthly deviation of BiH power system



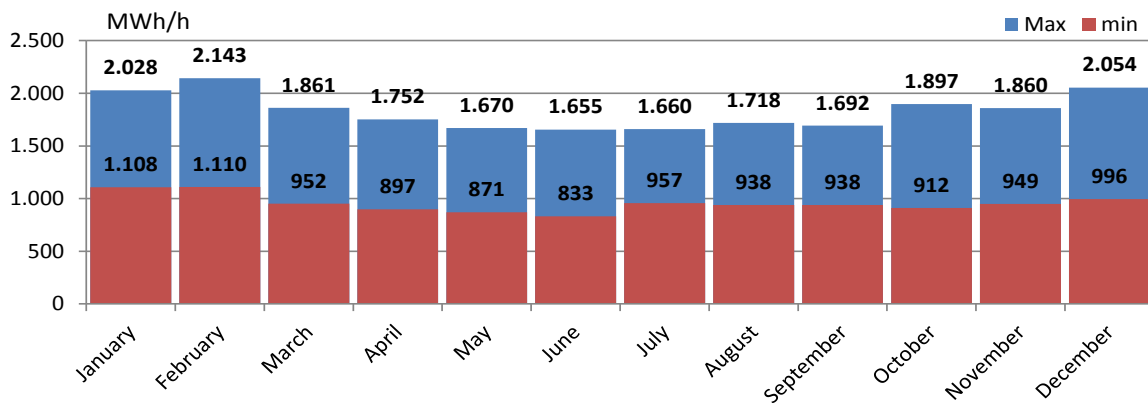
Specific values of hourly and daily consumption

Maximum hourly consumption in 2012 was realized on February 10th, 2012 in amount of 2.143 MWh/h and in the 18th hour and is somewhat smaller in relation to the previous year. Maximum daily consumption was also realized on February 10th in amount of 44.044 MWh of electricity. Minimum hourly consumption is registered on June 3rd, 2012 in the 5th hour in amount of 833 MW and minimum daily consumption in amount of 26.879 MWh of electricity was registered on May 1st, 2012 (Labour Day).

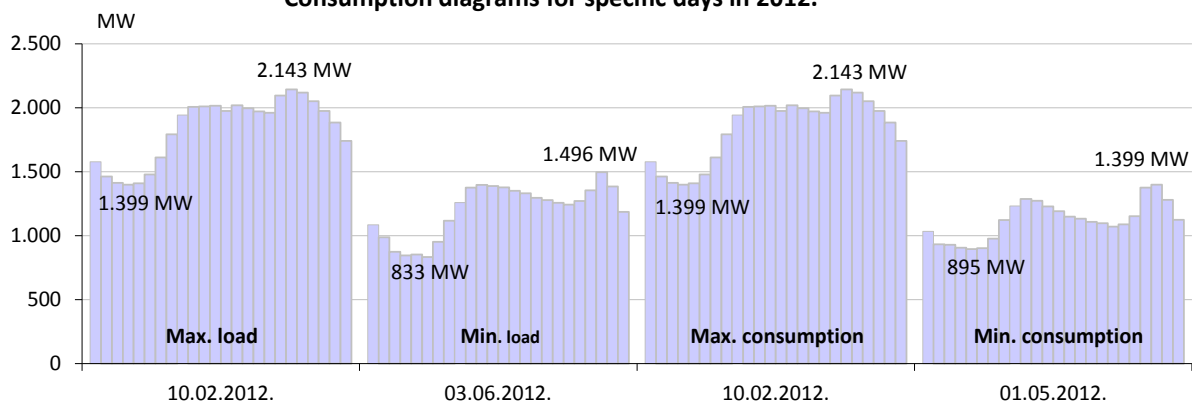
Specific electricity consumption in 2012

Max. hourly consumption			Min. hourly consumption			Max. daily consumption		Min. daily consumption	
MWh	Day	Hour	MWh	Day	Hour	MWh	Day	MWh	Day
2.143	10.02.2012.	18:00	833	03.06.2012.	5:00	44.044	10.02.2012.	26.879	01.05.2012.

Max. i min. hourly consumption through the months in 2012



Consumption diagrams for specific days in 2012.



BALANCE OF ELECTRICITY IN THE TRANSMISSION SYSTEM

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	2012/2011	
	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	%	
Electricity generation in the transmission system														
(1) HPP	274.9	287.5	315.9	586.9	461.2	302.0	202.1	185.2	146.8	200.2	303.9	541.4	3.807,9	88,8%
(2) TPP	863.0	731.8	770.9	582.1	659.6	640.7	651.8	671.6	719.1	740.7	652.5	742.2	8.425,7	89,6%
(3) Generation TOTAL (1+2)	1.137,9	1.019,3	1.086,8	1.169,1	1.120,8	942,7	853,8	856,7	865,8	940,9	956,3	1.283,6	12.233,7	89,3%
(4) Power injection from distribution system	1,0	1,1	4,4	6,6	9,2	3,3	1,1	1,3	0,6	0,6	3,6	4,8	37,6	189,8%
Import from the neighbouring power systems														
(5) from EES Croatia	358,9	366,4	168,8	64,2	54,1	91,3	205,6	307,0	159,5	201,9	302,7	238,5	2.518,8	156,6%
(6) from EES Serbia	170,6	135,1	147,2	137,7	149,4	146,8	154,0	134,9	151,5	143,7	116,1	82,3	1.669,6	77,4%
(7) from EES Montenegro	6,9	23,4	8,6	33,0	44,4	53,3	39,8	9,6	26,4	14,7	7,4	25,0	292,3	72,2%
(8) Import TOTAL (5..7)	536,4	524,9	324,6	234,9	247,9	291,4	399,4	451,4	337,4	360,2	426,3	345,8	4.480,8	107,4%
(9) AVAILABLE ENERGY (3+4+8)	1.675,3	1.545,2	1.415,8	1.410,5	1.377,9	1.237,4	1.254,4	1.309,4	1.203,8	1.301,7	1.386,2	1.634,2	16.752,0	93,7%
Takeover of electricity from the transmission system														
(10) Distribution companies	907,0	906,8	778,8	717,9	694,0	677,6	731,5	734,2	680,6	749,1	767,5	901,4	9.246,4	100,1%
(11) Directly connected consumers*	222,2	198,2	222,5	221,5	227,1	219,0	220,6	222,7	216,6	216,7	205,3	214,2	2.606,5	98,7%
(12) Takeover TOTAL (10+11)	1.129,2	1.105,1	1.001,3	939,4	921,1	896,5	952,1	956,9	897,3	965,8	972,8	1.115,6	11.852,9	99,8%
Export to the neighbouring power systems														
(13) for EES Croatia	115,8	117,9	169,9	290,5	312,1	232,2	163,6	87,3	146,0	120,8	59,2	122,7	1.938,1	55,0%
(14) for EES Serbia	60,9	35,3	45,7	32,6	24,0	13,2	19,3	37,2	19,6	32,8	68,5	59,2	448,1	141,7%
(15) for EES Montenegro	302,4	222,6	175,7	123,8	98,7	75,6	94,8	200,7	116,6	157,3	262,3	308,2	2.138,7	117,4%
(16) Export TOTAL (13..15)	479,1	375,8	391,4	446,9	434,9	320,9	277,7	325,2	282,1	310,9	389,9	490,1	4.525,0	79,9%
(17) Pumping	34,1	31,9	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	66,0	308,2%
(18) REQUIRED POWER (12+16+17)	1.642,4	1.512,7	1.392,7	1.386,3	1.356,0	1.217,5	1.229,8	1.282,1	1.179,4	1.276,7	1.362,8	1.605,7	16.443,9	93,6%
Transmission losses														
(19) Transmission losses (9-18)	32,9	32,5	23,2	24,3	21,9	20,0	24,7	27,4	24,4	25,0	23,5	28,5	308,1	95,1%
(20) In relation to available power (19)/(9)	1,96%	2,10%	1,64%	1,72%	1,59%	1,61%	1,97%	2,09%	2,03%	1,92%	1,69%	1,74%	1,84%	

* Including the consumption of qualified buyers

ELECTRICITY GENERATION IN THE TRANSMISSION SYSTEM

GENERATION	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	2012	2012/11
	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	%
HPP Jablanica	32,4	26,1	32,6	100,6	70,3	49,2	34,1	35,3	33,4	35,9	45,9	56,0	551,9	92,22%
HPP Grabovica	14,0	12,1	14,4	39,6	24,9	17,3	12,2	11,7	12,2	14,4	19,0	22,6	214,5	96,85%
HPP Salakovac	16,4	13,6	20,8	66,1	39,5	20,6	11,3	10,3	10,8	23,0	34,5	40,8	307,7	109,28%
HPP Višegrad	41,7	58,3	107,8	163,9	133,5	77,0	42,6	29,7	15,0	36,0	46,1	106,3	857,8	119,58%
HPP Trebinje 1	22,5	17,1	12,0	5,4	33,6	7,7	20,4	23,8	17,5	5,6	36,9	56,2	258,8	68,40%
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	
HPP Dubrovnik (G2)	49,7	53,4	24,9	26,6	43,3	0,0	0,0	0,0	0,0	0,0	0,0	0,0	197,9	36,53%
HPP Bočac	10,5	9,2	28,7	31,3	36,9	18,8	10,0	8,2	6,9	10,8	11,1	26,3	208,6	119,54%
HPP Rama	30,4	31,6	22,2	37,7	7,6	67,1	45,4	43,7	29,7	32,9	11,1	8,7	368,3	51,73%
HPP Mostar	11,8	9,7	14,9	35,2	23,6	13,7	9,0	8,1	8,2	15,3	21,3	25,0	195,8	107,35%
HPP Jajce 1	11,5	7,8	24,0	28,7	28,8	20,5	11,6	7,1	6,8	9,8	15,7	28,3	200,4	117,79%
HPP Jajce 2	4,8	4,1	8,3	9,5	9,8	7,0	4,8	4,2	4,1	4,5	4,9	8,2	74,3	103,68%
PSHPP Čapljina	28,8	42,5	1,3	25,7	0,3	1,5	0,6	2,9	2,1	9,9	48,1	124,4	288,0	175,78%
HPP Peć-Mlmi	0,4	1,9	3,9	8,6	5,3	1,4	0,1	0,0	0,0	0,8	3,2	13,8	39,6	94,45%
HPP Mostarsko Blato*	0,0	0,0	0,0	8,1	3,8	0,1	0,0	0,0	0,0	1,4	6,2	24,7	44,3	127,63%
HYDRO POWER PLANTS	274,9	287,5	315,9	586,9	461,2	302,0	202,1	185,2	146,8	200,2	303,9	541,4	3.807,9	88,76%
TPP Tuzla	335,0	246,6	239,7	248,1	228,0	160,0	217,9	256,4	208,1	228,3	156,2	183,9	2.708,0	72,43%
TPP Kakanj	184,8	164,4	204,9	96,4	228,2	223,9	251,3	245,3	266,8	172,7	212,9	214,4	2.466,0	111,27%
TPP Ugljevik	187,3	170,8	168,4	90,1	49,0	150,9	182,6	169,9	180,0	167,8	140,0	180,4	1.837,1	100,05%
TPP Gacko	156,0	150,0	157,9	147,5	154,3	106,0	0,0	0,0	64,2	171,8	143,4	163,5	1.414,6	87,67%
THERMAL POWER PLAN	863,0	731,8	770,9	582,1	659,6	640,7	651,8	671,6	719,1	740,7	652,5	742,2	8.425,7	89,59%
GENERATION	1.137,9	1.019,3	1.086,8	1.169,1	1.120,8	942,7	853,8	856,7	865,8	940,9	956,3	1.283,6	12.233,7	89,33%

*Power produced in a testing phase

ELECTRICITY CONSUMPTION IN THE TRANSMISSION SYSTEM

CONSUMPTION	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	2012	2012/2011
	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	%
Elektrokraina	181,2	189,0	156,4	141,5	133,6	129,8	136,0	133,1	125,9	144,7	152,9	183,8	1.807,8	100,7%
Elektrodoboj	56,8	56,8	48,8	45,2	48,9	48,4	51,8	51,6	47,9	51,9	48,4	52,0	608,5	97,8%
Elektrobljeljina	63,1	63,3	54,9	50,4	48,6	48,1	52,3	53,0	47,7	55,1	56,0	61,2	653,8	98,7%
Elektro distribucija Pale	32,6	32,3	27,8	23,5	21,4	20,5	21,7	22,5	22,4	24,8	25,5	29,7	304,8	98,7%
Elektrohercegovina	21,1	19,6	17,6	16,2	14,7	13,8	14,9	15,1	13,7	14,9	15,8	17,4	194,8	97,9%
RiTE ERS (Ugjevik i Gacko)	0,7	0,7	0,9	1,1	1,1	1,3	1,0	1,1	2,0	0,6	1,5	0,5	12,5	87,8%
ERS	355,5	361,7	306,4	277,9	268,3	262,0	277,7	276,3	259,5	292,0	300,2	344,6	3.582,2	99,4%
ED Sarajevo	132,8	130,6	117,2	106,2	102,2	98,8	103,8	103,1	99,5	109,1	115,2	135,8	1.354,3	100,8%
ED Tuzla	95,6	91,5	87,2	83,3	87,6	77,1	85,2	84,9	80,0	86,4	83,7	93,1	1.035,5	103,4%
ED Zenica	85,6	82,7	76,8	71,8	72,1	70,0	73,3	73,8	71,7	77,9	78,3	90,6	924,6	99,3%
ED Mostar	21,0	19,6	16,5	15,1	14,2	15,6	17,9	17,8	14,9	15,9	17,1	20,4	205,9	100,7%
ED Bihac	38,9	40,4	35,1	34,6	33,5	33,7	38,6	39,6	35,0	37,3	34,5	39,6	440,8	97,0%
Direct consumers	34,3	28,5	37,3	41,0	40,4	40,0	38,4	40,9	40,1	36,0	34,9	37,5	449,2	106,8%
EPBiH	408,2	393,2	370,1	352,0	349,9	335,2	357,1	360,0	341,3	362,6	363,8	416,9	4.410,3	101,3%
ED Hercegovacko-Neretvanska	55,9	56,6	40,7	38,8	33,4	36,5	42,7	43,5	35,6	35,7	39,8	55,5	514,7	103,0%
ED Zapadnohercegovacka	32,8	32,5	27,0	26,0	22,6	23,6	25,5	26,6	22,3	24,4	26,1	32,0	321,4	101,1%
ED Herceg Bosanska	15,0	14,6	12,6	12,0	11,5	11,0	11,9	12,2	10,9	11,8	12,3	15,0	150,8	98,9%
ED Srednja Bosna	32,2	32,2	27,0	22,6	21,8	23,5	26,4	27,4	25,8	27,7	27,7	30,6	324,9	95,9%
ED Posavska	10,0	10,5	8,7	9,3	8,1	8,1	8,8	9,2	7,9	8,7	9,4	10,8	109,4	103,9%
Direct consumers	112,8	96,6	95,1	93,0	111,2	105,6	106,7	106,3	102,5	105,6	97,0	101,8	1.234,3	92,9%
EPHZHB	258,8	242,9	211,1	201,7	208,6	208,3	222,1	225,2	204,9	213,9	212,3	245,7	2.655,5	96,8%
Aluminij (qualified buyer)	74,4	72,5	89,2	86,4	74,4	72,0	74,4	74,4	72,0	74,5	72,0	74,4	910,5	103,9%
District Brčko	32,3	34,8	24,5	21,3	19,9	19,0	20,7	21,0	19,5	22,8	24,5	34,0	294,4	97,2%
Consumption the transmission system	1.129,2	1.105,1	1.001,3	939,4	921,1	896,5	952,1	956,9	897,3	965,8	972,8	1.115,6	11.852,9	103,3%
Pumping regime PSHPP Čapljina	34,1	31,9	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	66,0	308,2%
Takeover from the transmission system	1.163,3	1.136,9	1.001,3	939,4	921,1	896,5	952,1	956,9	897,3	965,8	972,8	1.115,6	11.918,9	100,1%

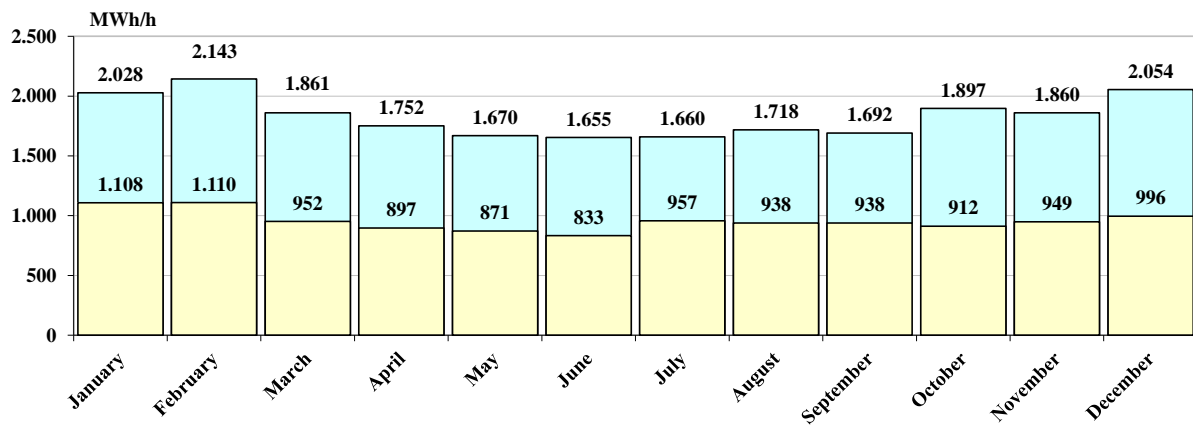
Data on specific hourly and daily consumption in 2012

	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	2.028	17.01.2012.	17	1.108	23.01.2012.	4	40.726	31.01.2012.	36.023	01.01.2012.
February	2.143	10.02.2012.	18	1.110	26.02.2012.	4	44.044	10.02.2012.	36.260	26.02.2012.
March	1.861	07.03.2012.	19	952	26.03.2012.	3	36.733	09.03.2012.	29.710	25.03.2012.
April	1.752	10.04.2012.	20	897	30.04.2012.	3	34.594	14.04.2012.	29.493	29.04.2012.
May	1.670	16.05.2012.	20	871	02.05.2012.	3	33.626	17.05.2012.	29.020	06.05.2012.
June	1.655	21.06.2012.	14	833	03.06.2012.	5	33.771	21.06.2012.	28.788	03.06.2012.
July	1.660	09.07.2012.	14	957	23.07.2012.	4	33.597	20.07.2012.	30.363	22.07.2012.
August	1.718	18.08.2012.	20	938	20.08.2012.	4	34.218	18.08.2012.	29.640	19.08.2012.
September	1.692	26.09.2012.	19	938	03.09.2012.	3	32.303	13.09.2012.	30.047	09.09.2012.
October	1.897	25.10.2012.	19	912	08.10.2012.	3	36.045	30.10.2012.	29.802	07.10.2012.
November	1.860	11.11.2012.	18	949	05.11.2012.	3	35.488	20.11.2012.	32.066	04.11.2012.
December	2.054	13.12.2012.	17	996	02.12.2012.	3	40.789	13.12.2012.	33.785	02.12.2012.

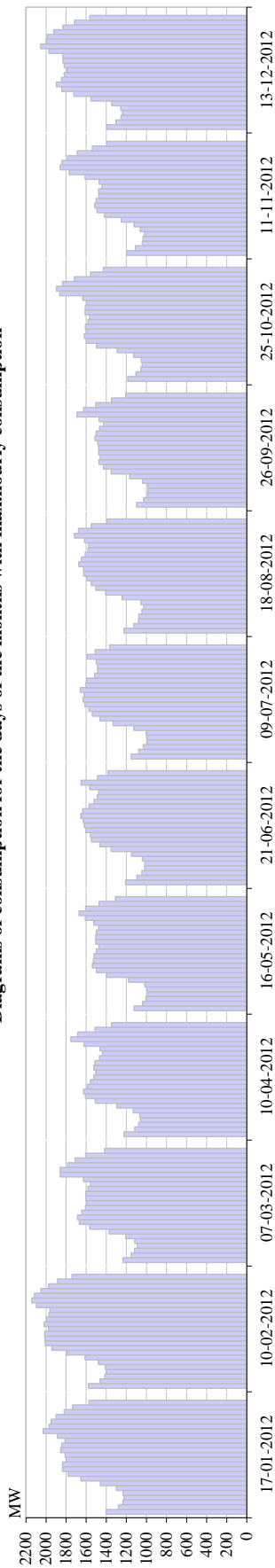
Specific consumption in 2012

Max. hourly load			Min. hourly load			Max. daily consumption		Min. daily consumption	
MWh	Day	Hour	MWh	Day	Hour	MWh	Day	MWh	Day
2.143	10.02.2012.	18:00	833	03.06.2012.	5:00	44.044	10.02.2012.	26.879	01.05.2012.

Minimum and maximum hourly load through the months in 2012

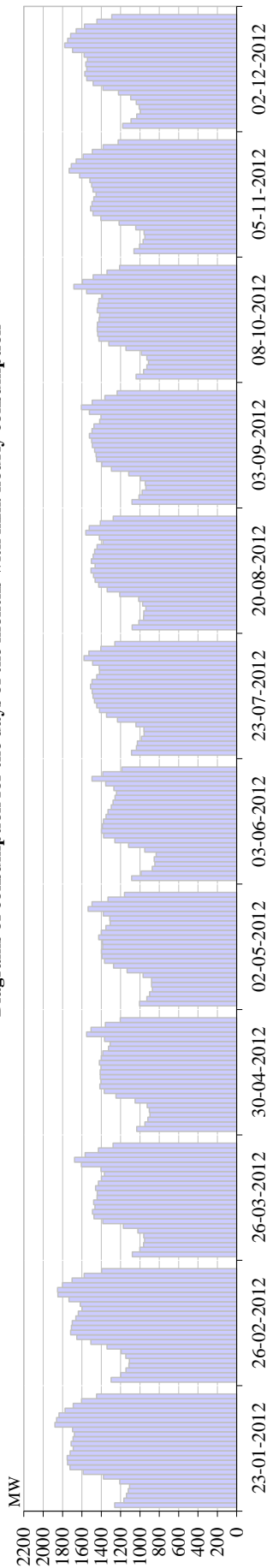


Diagrams of consumption for the days of the months with max.hourly consumption



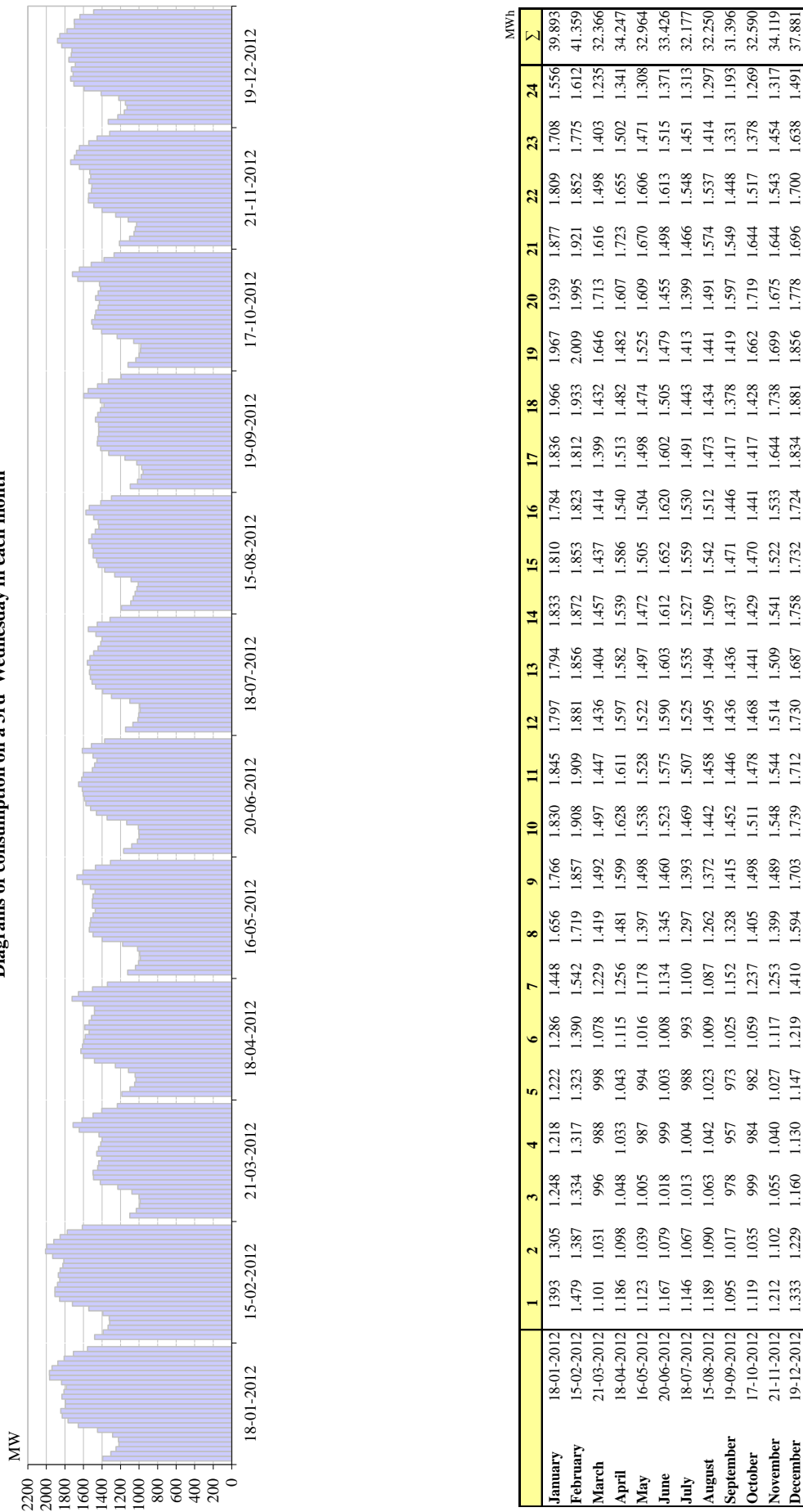
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Σ	
January	17-01-2012	1401	1.278	1.234	1.225	1.235	1.298	1.459	1.653	1.780	1.835	1.836	1.799	1.811	1.854	1.842	1.810	1.887	2.028	1.969	1.950	1.899	1.818	1.736	1.572	40.209
February	10-02-2012	1.577	1.463	1.413	1.399	1.409	1.478	1.611	1.792	1.942	2.007	2.010	2.015	1.975	2.019	1.996	1.971	1.961	2.095	2.143	2.118	2.050	1.975	1.884	1.741	44.044
March	07-03-2012	1.233	1.152	1.118	1.093	1.117	1.205	1.372	1.566	1.686	1.686	1.644	1.607	1.598	1.600	1.604	1.582	1.560	1.627	1.857	1.861	1.783	1.711	1.606	1.416	36.266
April	10-04-2012	1.222	1.117	1.077	1.059	1.067	1.132	1.296	1.510	1.608	1.626	1.587	1.559	1.525	1.505	1.525	1.513	1.468	1.437	1.462	1.622	1.752	1.684	1.511	1.348	34.212
May	16-05-2012	1.123	1.039	1.005	987	994	1.016	1.178	1.397	1.498	1.538	1.528	1.522	1.497	1.472	1.505	1.504	1.498	1.474	1.525	1.609	1.670	1.606	1.471	1.308	32.964
June	21-06-2012	1.207	1.095	1.045	1.018	1.014	1.040	1.148	1.351	1.464	1.546	1.559	1.604	1.618	1.629	1.655	1.634	1.572	1.522	1.490	1.474	1.566	1.651	1.487	1.382	33.771
July	09-07-2012	1.151	1.077	1.031	989	992	1.001	1.126	1.333	1.464	1.539	1.574	1.612	1.632	1.620	1.660	1.605	1.594	1.516	1.486	1.488	1.501	1.593	1.509	1.366	33.459
August	18-08-2012	1.223	1.125	1.079	1.075	1.045	1.027	1.056	1.243	1.407	1.504	1.551	1.591	1.625	1.626	1.673	1.648	1.610	1.580	1.575	1.616	1.718	1.676	1.552	1.393	34.218
September	26-09-2012	1.098	1.028	987	983	986	1.039	1.166	1.351	1.428	1.472	1.461	1.474	1.476	1.484	1.511	1.501	1.468	1.428	1.470	1.692	1.626	1.504	1.348	1.206	32.187
October	25-10-2012	1.186	1.104	1.054	1.042	1.051	1.128	1.291	1.498	1.599	1.620	1.599	1.607	1.582	1.567	1.611	1.608	1.595	1.634	1.864	1.897	1.836	1.717	1.558	1.428	35.676
November	11-11-2012	1.193	1.110	1.040	1.034	1.019	1.062	1.123	1.251	1.417	1.492	1.517	1.502	1.475	1.476	1.444	1.470	1.611	1.769	1.860	1.842	1.785	1.688	1.538	1.394	34.112
December	13-12-2012	1.393	1.304	1.253	1.239	1.256	1.346	1.553	1.723	1.842	1.897	1.846	1.818	1.789	1.818	1.830	1.834	1.973	2.054	1.998	1.988	1.924	1.832	1.715	1.564	40.789

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

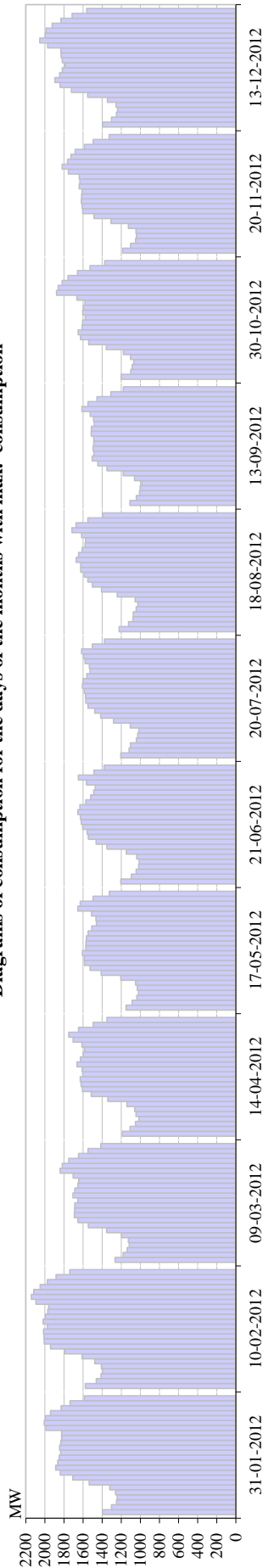


	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Σ	
January	1261	1.166	1.140	1.121	1.108	1.209	1.377	1.587	1.723	1.749	1.752	1.722	1.689	1.712	1.692	1.677	1.697	1.879	1.862	1.837	1.774	1.690	1.604	1.448	1.448	37,476
February	1.298	1.198	1.144	1.115	1.110	1.146	1.194	1.341	1.508	1.653	1.717	1.709	1.700	1.663	1.638	1.599	1.617	1.734	1.849	1.852	1.801	1.701	1.577	1.396	1.396	36,260
March	1.079	1.002	963	952	960	1.021	1.172	1.384	1.475	1.490	1.465	1.479	1.444	1.441	1.459	1.429	1.397	1.368	1.403	1.605	1.676	1.567	1.430	1.278	1.278	31,939
April	1.034	949	918	897	904	925	1.050	1.247	1.369	1.414	1.403	1.410	1.412	1.403	1.419	1.400	1.385	1.326	1.309	1.366	1.552	1.505	1.357	1.204	1.204	30,158
May	1.004	928	900	871	879	879	967	1.132	1.273	1.365	1.392	1.397	1.386	1.387	1.427	1.399	1.353	1.309	1.311	1.380	1.536	1.496	1.330	1.160	1.160	29,461
June	1.085	987	873	846	853	833	951	1.117	1.259	1.375	1.397	1.388	1.378	1.351	1.331	1.296	1.278	1.257	1.243	1.270	1.354	1.496	1.384	1.186	1.186	28,788
July	1.087	1.036	1.027	984	957	959	1.041	1.233	1.346	1.418	1.447	1.471	1.485	1.494	1.510	1.496	1.447	1.418	1.422	1.489	1.578	1.527	1.404	1.259	1.259	31,535
August	1.081	1.012	963	960	938	973	1.013	1.208	1.338	1.427	1.463	1.480	1.505	1.463	1.503	1.483	1.469	1.444	1.383	1.419	1.559	1.524	1.409	1.276	1.276	31,293
September	1.082	1.009	977	938	946	995	1.116	1.295	1.394	1.448	1.454	1.469	1.493	1.499	1.522	1.495	1.476	1.417	1.403	1.522	1.606	1.494	1.362	1.235	1.235	31,647
October	1.040	962	929	912	928	985	1.145	1.322	1.425	1.436	1.442	1.440	1.423	1.416	1.441	1.433	1.425	1.387	1.551	1.683	1.593	1.484	1.341	1.211	1.211	31,354
November	1.062	1.004	967	949	957	1.043	1.216	1.405	1.486	1.511	1.495	1.477	1.453	1.485	1.499	1.517	1.623	1.731	1.710	1.659	1.586	1.493	1.381	1.226	1.226	32,935
December	1.179	1.093	1.034	996	1.008	1.039	1.095	1.223	1.382	1.483	1.550	1.569	1.549	1.559	1.542	1.577	1.696	1.778	1.747	1.717	1.659	1.573	1.445	1.292	1.292	33,785

Diagrams of consumption on a 3rd Wednesday in each month

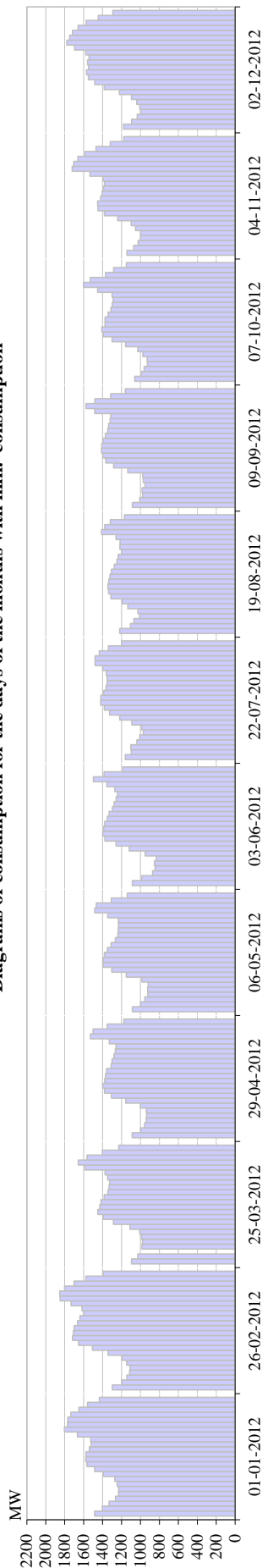


Diagrams of consumption for the days with max. consumption



	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	1397	1.303	1.250	1.244	1.261	1.322	1.537	1.708	1.840	1.887	1.867	1.850	1.837	1.846	1.835	1.825	1.826	1.991	2.007	1.995	1.942	1.830	1.737	1.589	40.726
February	1577	1.463	1.413	1.399	1.409	1.478	1.611	1.792	1.942	2.007	2.010	2.015	1.975	2.019	1.996	1.971	1.961	2.095	2.143	2.118	2.050	1.975	1.884	1.741	44.044
March	1267	1.181	1.139	1.118	1.126	1.199	1.354	1.546	1.654	1.693	1.689	1.688	1.656	1.707	1.687	1.655	1.647	1.705	1.841	1.818	1.751	1.648	1.549	1.415	36.733
April	1191	1.109	1.052	1.016	1.047	1.060	1.143	1.342	1.515	1.607	1.622	1.630	1.605	1.610	1.664	1.629	1.599	1.585	1.614	1.706	1.752	1.649	1.495	1.352	34.594
May	1152	1.087	1.038	1.021	1.032	1.051	1.207	1.412	1.529	1.586	1.589	1.608	1.573	1.570	1.565	1.547	1.510	1.461	1.467	1.513	1.655	1.630	1.497	1.326	33.626
June	1207	1.095	1.045	1.018	1.014	1.040	1.148	1.351	1.464	1.546	1.559	1.604	1.618	1.629	1.655	1.634	1.572	1.522	1.490	1.474	1.566	1.651	1.487	1.382	33.771
July	1207	1.119	1.105	1.044	1.029	1.017	1.107	1.282	1.416	1.479	1.550	1.573	1.574	1.588	1.608	1.601	1.562	1.528	1.536	1.580	1.596	1.616	1.503	1.377	33.597
August	1223	1.125	1.079	1.075	1.045	1.027	1.056	1.243	1.407	1.504	1.551	1.591	1.625	1.626	1.673	1.648	1.610	1.580	1.575	1.616	1.718	1.676	1.552	1.393	34.218
September	1110	1.043	1.009	1.003	987	1.063	1.181	1.352	1.447	1.505	1.487	1.497	1.490	1.489	1.515	1.514	1.484	1.491	1.526	1.614	1.549	1.456	1.311	1.180	32.303
October	1202	1.102	1.087	1.069	1.103	1.178	1.358	1.543	1.628	1.652	1.610	1.606	1.577	1.604	1.597	1.582	1.667	1.878	1.861	1.821	1.758	1.659	1.529	1.374	36.045
November	1186	1.103	1.051	1.041	1.047	1.126	1.309	1.486	1.605	1.612	1.618	1.616	1.612	1.641	1.634	1.641	1.754	1.820	1.764	1.729	1.684	1.586	1.494	1.329	35.488
December	1393	1.304	1.253	1.239	1.256	1.346	1.553	1.723	1.842	1.897	1.846	1.818	1.789	1.818	1.830	1.834	1.973	2.054	1.998	1.988	1.924	1.832	1.715	1.564	40.789

Diagrams of consumption for the days with min. 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	1485	1.402	1.331	1.264	1.231	1.229	1.245	1.271	1.392	1.485	1.566	1.576	1.575	1.540	1.522	1.525	1.666	1.803	1.771	1.767	1.735	1.649	1.558	1.435	36.023
February	1.298	1.198	1.144	1.115	1.110	1.146	1.194	1.341	1.508	1.653	1.717	1.709	1.700	1.663	1.638	1.599	1.617	1.734	1.849	1.852	1.801	1.701	1.577	1.396	36.260
March	1.094	1.028		985	979	989	1.008	1.111	1.285	1.391	1.450	1.429	1.416	1.383	1.344	1.332	1.326	1.348	1.373	1.587	1.656	1.565	1.402	1.229	29.710
April	1.088	998	958	940	934	938	1.000	1.156	1.306	1.379	1.398	1.378	1.369	1.358	1.309	1.299	1.279	1.265	1.259	1.329	1.528	1.501	1.350	1.174	29.493
May	1.086	999	955	922	924	919	985	1.150	1.303	1.394	1.394	1.381	1.349	1.309	1.266	1.239	1.236	1.232	1.234	1.346	1.482	1.467	1.308	1.140	29.020
June	1.085	987	873	846	853	833	951	1.117	1.259	1.375	1.397	1.388	1.378	1.351	1.331	1.296	1.278	1.257	1.243	1.270	1.354	1.496	1.384	1.186	28.788
July	1.160	1.096	1.101	1.038	1.007	970	988	1.091	1.220	1.325	1.381	1.421	1.419	1.388	1.364	1.353	1.353	1.361	1.398	1.479	1.478	1.434	1.338	1.200	30.363
August	1.219	1.106	1.069	1.009	1.027	1.134	1.192	1.312	1.336	1.344	1.335	1.323	1.306	1.276	1.250	1.235	1.199	1.218	1.216	1.258	1.411	1.377	1.319	1.169	29.640
September	1.086	1.008	978	982	953	971	976	1.134	1.284	1.367	1.397	1.411	1.407	1.395	1.370	1.346	1.336	1.320	1.314	1.482	1.574	1.480	1.316	1.160	30.047
October	1.061	990	962	928	930	976	1.029	1.157	1.299	1.392	1.407	1.373	1.374	1.342	1.312	1.298	1.289	1.299	1.452	1.601	1.529	1.369	1.283	1.150	29.802
November	1.142	1.071	1.025	998	999	1.052	1.099	1.241	1.381	1.448	1.452	1.420	1.404	1.389	1.379	1.395	1.534	1.721	1.704	1.661	1.586	1.470	1.318	1.177	32.066
December	1.179	1.093	1.034	996	1.008	1.039	1.095	1.223	1.382	1.483	1.550	1.569	1.549	1.549	1.542	1.577	1.696	1.778	1.747	1.717	1.659	1.573	1.445	1.292	33.785

SCHEDULE EXCHANGE WITH NEIGHBOURING POWER SYSTEMS

NOMINATED EXCHANGE	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	2012
	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh
BiH <- HR (HEP-OPS)	296,8	269,2	182,2	162,1	125,6	123,4	207,5	298,7	199,5	232,8	273,2	269,5	2.640,4
BiH <- SR (EMS)	71,9	107,2	126,2	77,7	70,2	113,1	73,8	59,4	43,7	53,2	37,2	14,7	848,3
BiH <- CG (EPCG)	15,7	14,5	9,2	2,4	27,8	34,9	5,3	2,4	9,0	12,0	23,0	8,5	164,7
(1) Import BiH	384,4	390,9	317,6	242,2	223,6	271,4	286,6	360,5	252,2	298,0	333,3	292,7	3.653,3
BiH -> HR (HEP-OPS)	67,3	47,3	170,0	225,0	279,0	130,3	58,6	38,8	43,7	79,6	50,1	127,2	1.317,0
BiH -> SR (EMS)	40,1	26,6	33,8	47,7	40,8	39,2	20,2	47,6	70,5	60,7	57,1	150,2	634,5
BiH -> CG (EPCG)	217,7	164,4	178,6	175,9	95,8	132,8	84,0	151,6	77,1	110,0	186,2	160,6	1.734,9
(2) Export BiH	325,1	238,3	382,5	448,7	415,6	302,3	162,8	238,1	191,3	250,4	293,3	438,0	3.686,4
(3) Balance BiH (2) - (1)	-59,3	-152,6	64,8	206,5	192,0	30,9	-123,8	-122,4	-60,8	-47,6	-40,0	145,3	33,0
Balance HR (HEP-OPS)	-229,5	-221,9	-12,2	63,0	153,4	6,9	-148,9	-259,8	-155,8	-153,1	-223,1	-142,3	-1.323,4
Balance SR (EMS)	-31,9	-80,6	-92,4	-30,0	-29,4	-73,9	-53,7	-11,7	26,8	7,5	19,9	135,5	-213,8
Balance CG (EPCG)	202,0	149,9	169,4	173,6	68,0	97,9	78,8	149,2	68,1	98,0	163,2	152,1	1.570,3
Transit	256,6	203,2	226,3	169,3	138,0	166,6	124,8	191,4	102,0	176,3	197,9	158,2	2.110,6

PHYSICAL EXCHANGE WITH NEIGHBOURING POWER SYSTEMS

PHYSICAL FLOWS	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	2012
	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh
BiH <- HR (HEP-OPS)	358,9	366,4	168,8	64,2	54,1	91,3	205,6	307,0	159,5	201,9	302,7	238,5	2.518,8
BiH <- SR (EMS)	170,6	135,1	147,2	137,7	149,4	146,8	154,0	134,9	151,5	143,7	116,1	82,3	1.669,6
BiH <- CG (EPCG)	6,9	23,4	8,6	33,0	44,4	53,3	39,8	9,6	26,4	14,7	7,4	25,0	292,3
(1) Import BiH	536,4	524,9	324,6	234,9	247,9	291,4	399,4	451,4	337,4	360,2	426,3	345,8	4.480,8
BiH -> HR (HEP-OPS)	115,8	117,9	169,9	290,5	312,1	232,2	163,6	87,3	146,0	120,8	59,2	122,7	1.938,1
BiH -> SR (EMS)	60,9	35,3	45,7	32,6	24,0	13,2	19,3	37,2	19,6	32,8	68,5	59,2	448,1
BiH -> CG (EPCG)	302,4	222,6	175,7	123,8	98,7	75,6	94,8	200,7	116,6	157,3	262,3	308,2	2.138,7
(2) Export BiH	479,1	375,8	391,4	446,9	434,9	320,9	277,7	325,2	282,1	310,9	389,9	490,1	4.525,0
(3) Balance BiH (2) - (1)	-57,3	-149,0	66,7	212,0	187,0	29,5	-121,8	-126,3	-55,3	-49,3	-36,4	144,3	44,2
Balance HR (HEP-OPS)	-243,1	-248,4	1,1	226,3	258,0	140,9	-42,0	-219,7	-13,5	-81,0	-243,6	-115,8	-580,7
Balance SR (EMS)	-109,7	-99,9	-101,5	-105,1	-125,4	-133,7	-134,8	-97,7	-132,0	-110,9	-47,7	-23,1	-1.221,5
Balance CG (EPCG)	295,5	199,3	167,1	90,8	54,4	22,3	55,0	191,1	90,2	142,7	254,9	283,2	1.846,4

Deviation of BiH power system in 2012

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	-124	-26	-9.111	252	28	11.430	252	3	2.319
February	-283	-60	-20.079	266	64	23.426	-283	5	3.347
March	-120	-28	-9.277	151	29	12.079	151	4	2.802
April	-134	-25	-6.979	111	30	13.207	-134	9	6.228
May	-111	-26	-11.683	131	23	6.930	131	-6	-4.753
June	-96	-22	-9.272	171	25	8.111	171	-2	-1.161
July	-137	-24	-8.504	89	25	10.116	-137	2	1.612
August	-115	-26	-11.277	97	22	7.378	-115	-5	-3.899
September	-131	-24	-6.494	179	27	12.338	179	8	5.844
October	-325	-36	-13.785	148	32	12.075	-325	-2	-1.710
November	-144	-34	-12.150	228	42	15.883	228	5	3.733
December	-150	-32	-13.108	181	34	11.594	181	-2	-1.514
2012	-325	-30	-131.719	266	32	144.567	-325	1	12.848