

**REPORT  
ON POWER FLOWS IN THE TRANSMISSION SYSTEM  
OF BOSNIA AND HERZEGOVINA IN 2016**

Sarajevo, February 2017

This Report presents power flows in the transmission system in BiH in 2016. It includes main review of power flows and specific indicators and their comparison with previous year.

### Electricity balance in the transmission system

Total amount of 19.236 GWh of electricity was available on the transmission network of BiH in 2016. 16.054 GWh was produced in the transmission system and another 98 GWh of electricity is injected from the distribution network. From the neighbouring systems it was received 3.084 GWh of electricity.

Out of totally available electricity on transmission network, the distribution companies took over 9.537 GWh, customers directly connected to the transmission system took over 2.341 GWh, neighbouring systems were delivered 6.841 GWh, while transmission losses amounted 333 GWh, which makes 1,73 % of totally available electricity on transmission network. During 2016, PSHPP Čapljina took over 46.2 GWh and the power plants' own consumption amounted to 137 GWh.

### Electricity generation in the transmission system

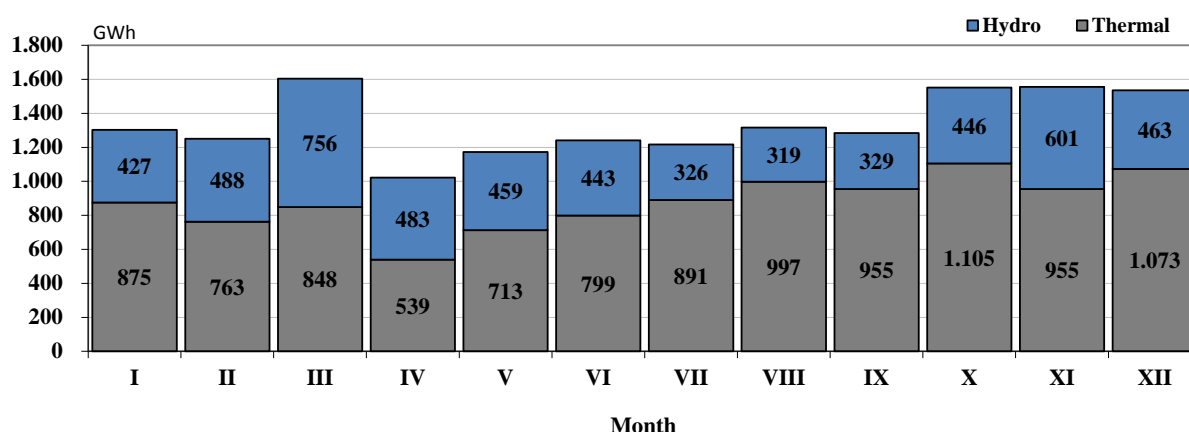
Out of totally produced 16.054 GWh of electricity in transmission system in 2016, Hydro Power Plants produced 5.540 GWh, i.e. 34,5%, and Thermal Power Plants produced 10.514 GWh, i.e. 65,5% of electricity. Hydro Power Plants in 2016 produced 1,94% less electricity. Thermal Power Plants produced 23,5% of the electricity more than it was in 2015.

It resulted with increase of the electricity generation by 13,3% than it was in 2015.

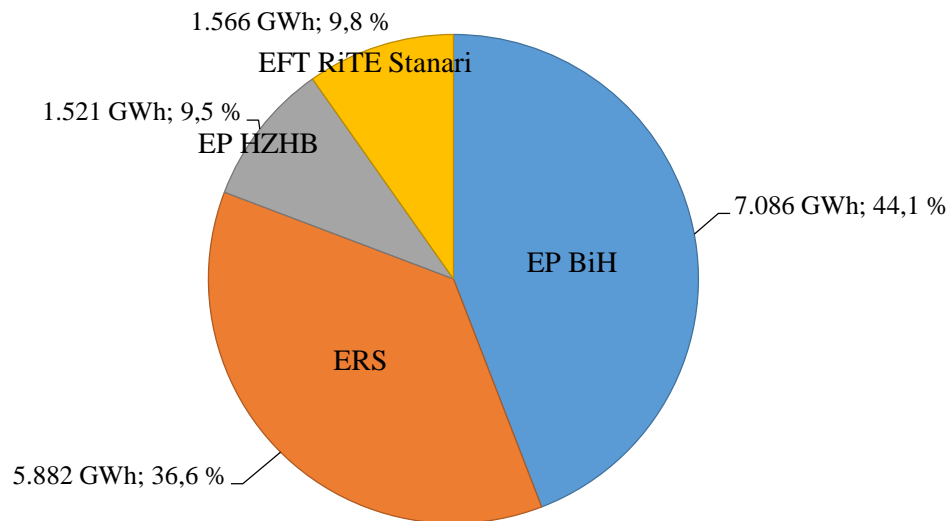
In the course of 2016, TPP Stanari has been synchronised, tested and put into operation.

The following diagrams show the structure of electricity generation throughout the months of 2016 and the contribution that the generation companies have in generation of the electricity in BiH.

**The structure of electricity consumption through the months in 2016.**



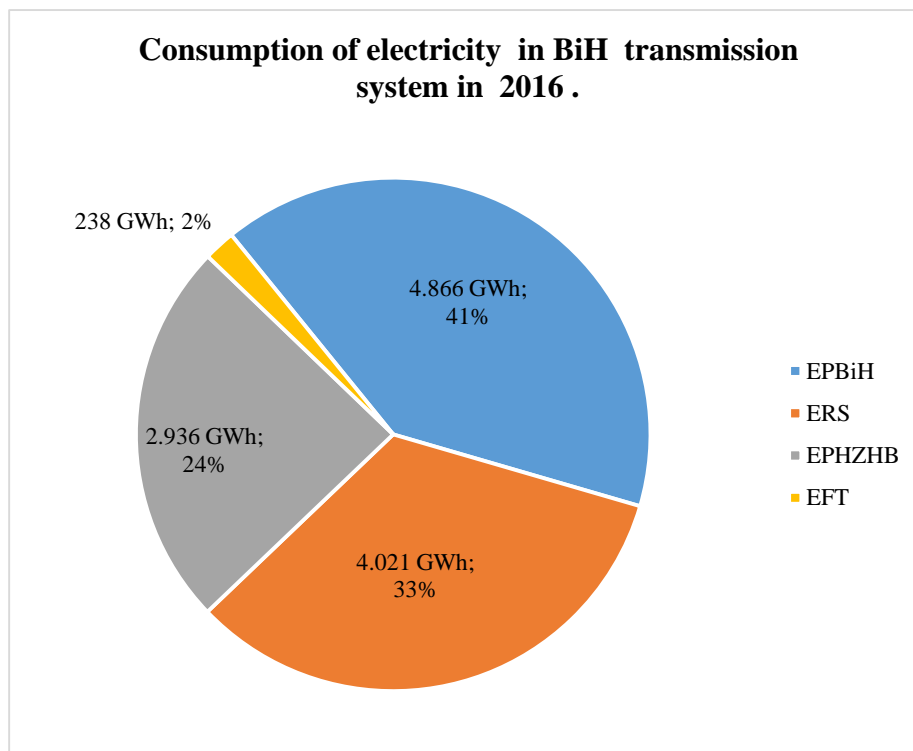
### Companies shares in the electricity generation

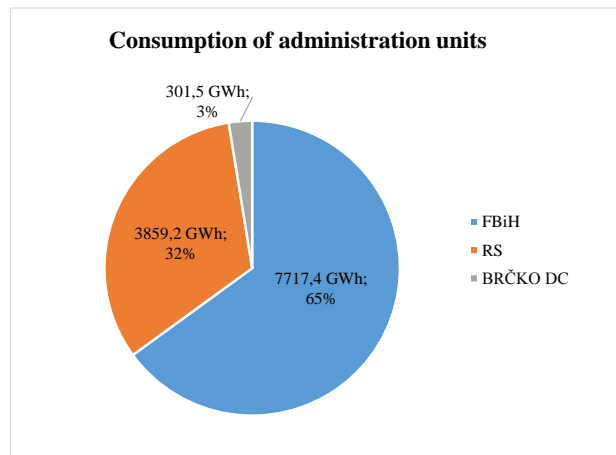
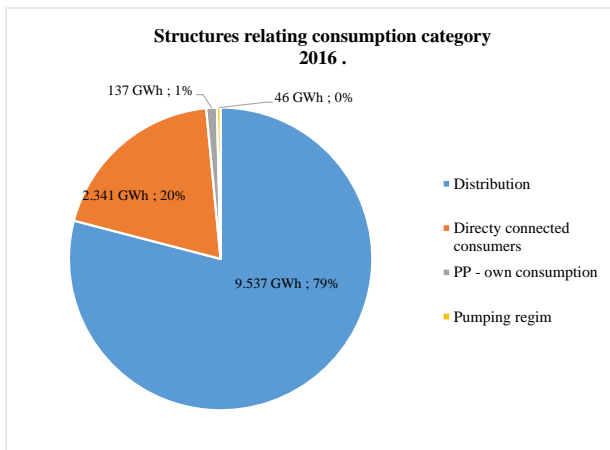


### Electricity consumption in the transmission system

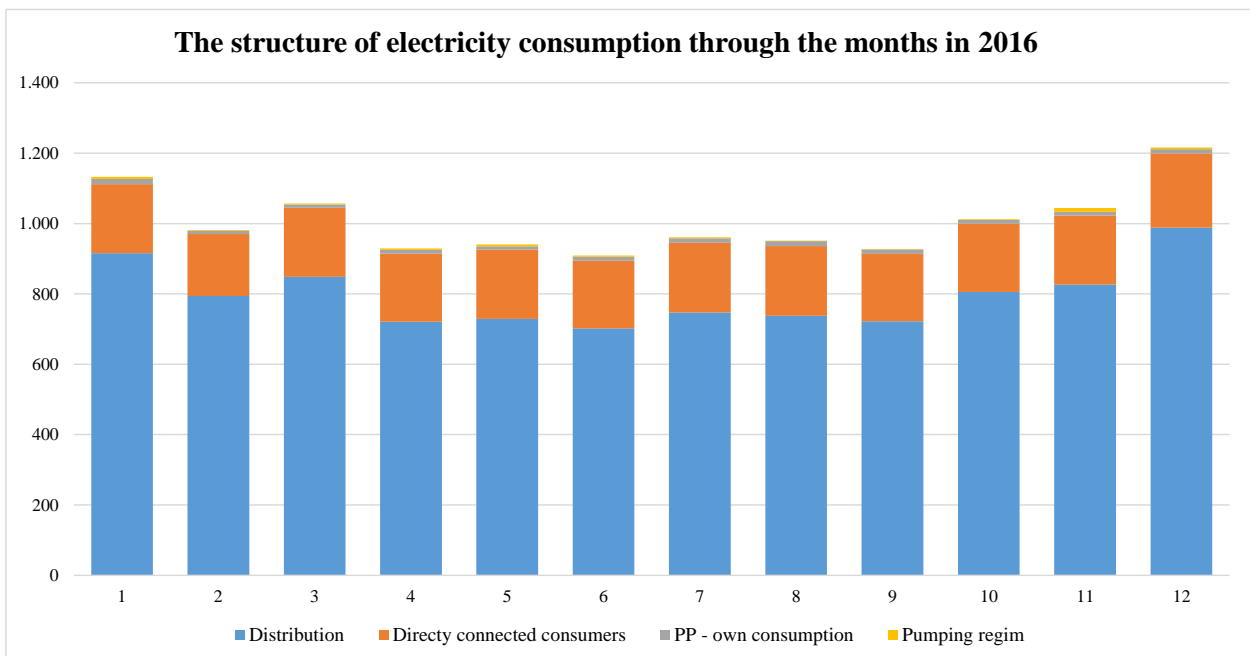
Electricity consumption in the transmission system of BiH in 2016 amounted 12.015 GWh and was 2,8% higher in comparison to 2015. Consumption of PSHHP Čapljina, in pumping regime, amounted 46,2 GWh in 2016. Distribution companies took over 9.537 GWh and customers directly connected to the transmission network took over 2.341 GWh of electricity. The power plants' own consumption in 2016 amounted to 137,2 GWh.

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.





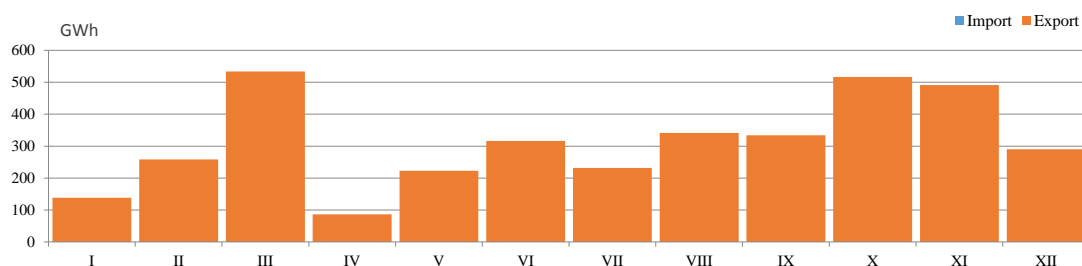
The highest monthly consumption in amount of 1.216 GWh in the transmission system in BiH was measured in December. The lowest monthly consumption was in June amounting to 909 GWh of electricity. The following diagram shows monthly consumption in the transmission system in BiH.



### Nominated power exchange with the neighbouring systems

According to the nominated exchange programmes, in the year of 2016, 4.396 GWh of electricity was imported in BiH power system and 8.158 GWh of electricity was exported from BiH power system during 2016. In 2016, out of that amount 2.871 GWh of electricity was transited over BiH transmission network. The balance amount of 3.763 GWh of exported energy indicates increase of export by 76% compared to 2015. The main reason for this export increase in 2016 is due to activation of TPP Stanari.

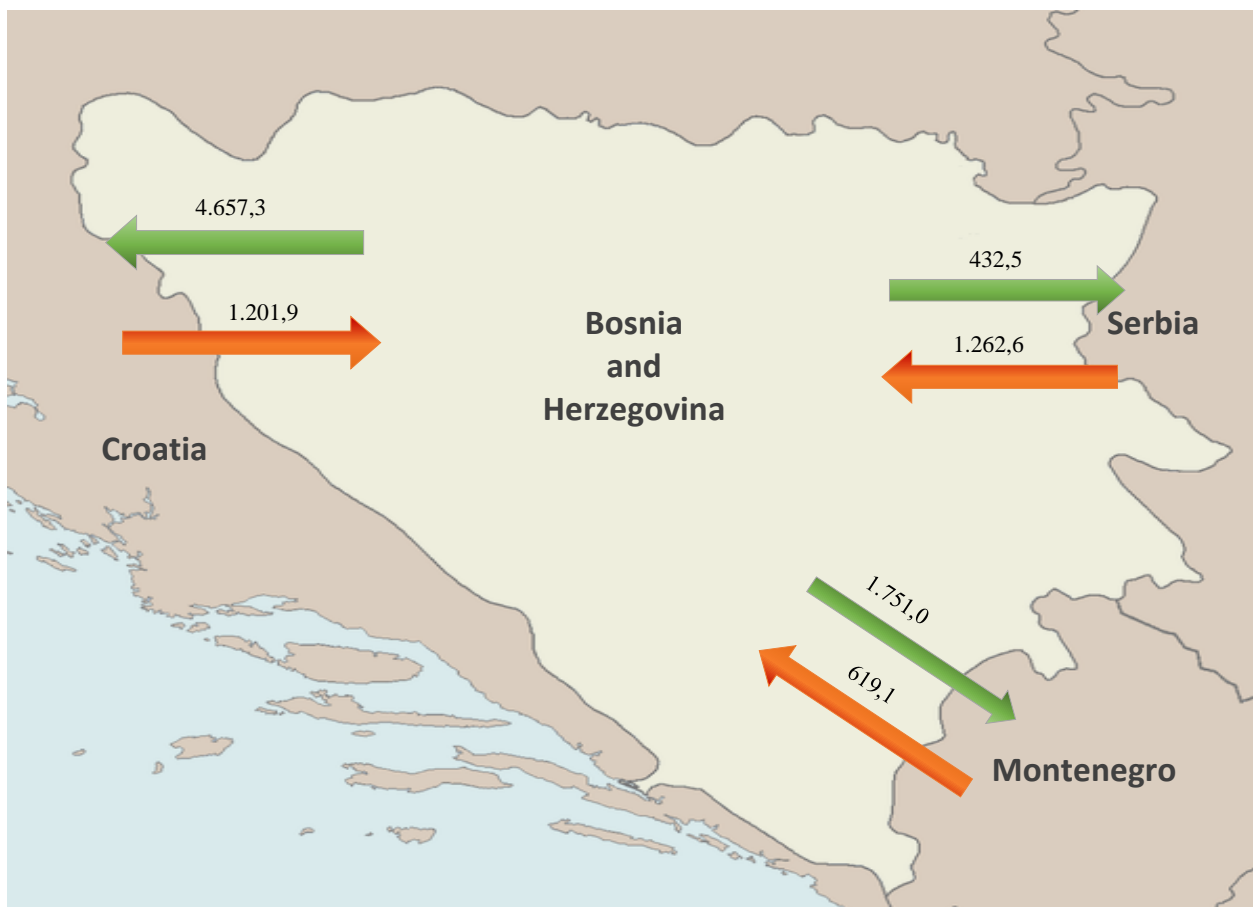
#### Balance of nominated exchange in BIH in 2016



## Crossborder power flows

Actual physical power flows on tie-lines in 2016 resulted with the balance of exchanged electricity of BiH Control Area in amount of 3.757 GWh in an export direction.

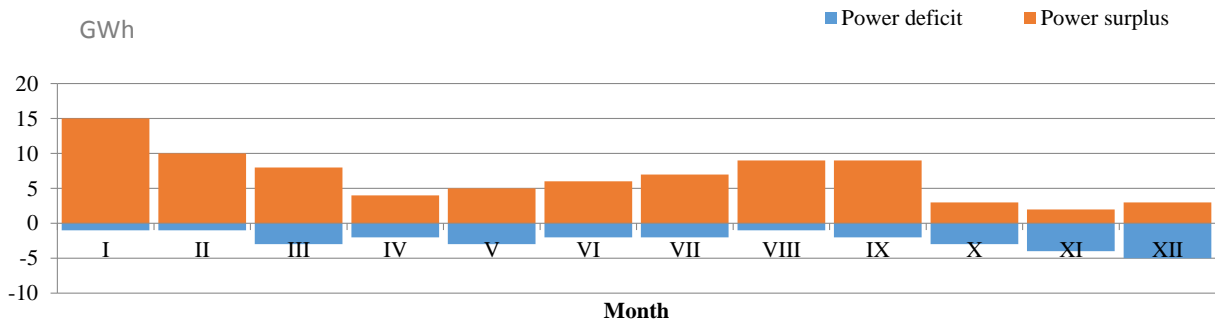
From the neighbouring systems 3.084 GWh was injected in BiH transmission system and other systems were delivered 6.841 GWh of electricity. Power flows on the borders with neighbouring systems were such that in 2016 on the border with Serbia 830 GWh was injected in BiH transmission system while on the border with Croatia 3.455 GWh of electricity was delivered and on the border with Montenegro 1.132 GWh of electricity was delivered.



### Deviations from the nominated exchange programmes

Unintentional deviations from the nominated exchange programmes in 2016 were 28 GWh in total for the hours when there was deficit registered i.e. 80 GWh for the hours when energy surplus is registered in BiH Control Area. Maximum hourly electricity deficit in amount of 313 MWh/h was registered in December and electricity surplus of 239 MWh/h in September 2016.

### Monthly deviations of ees BiH toward the interconnection 2016



Due to the new Market Rules application and new balancing principles in 2016 there was significantly lower amount of deviations of BiH Control area towards the interconnection.

### Specific values of hourly and daily consumption

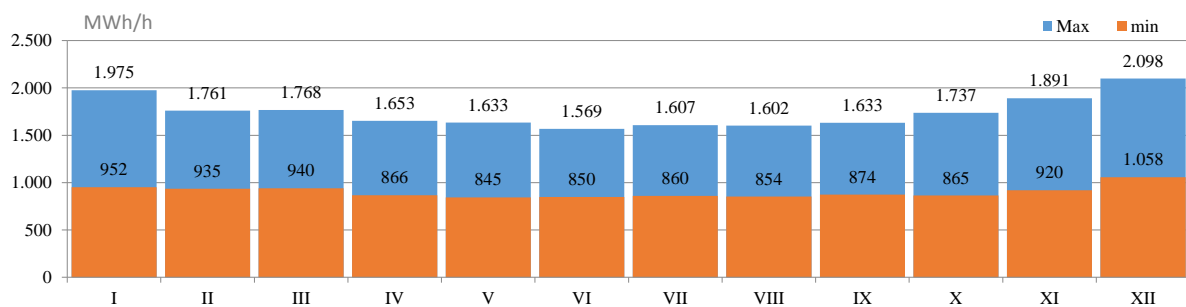
Maximum hourly load in 2016 in amount of 2 098 MWh/h was realised on December 31<sup>th</sup> 2016 in 18<sup>th</sup> hour. Maximum daily consumption in amount of 41 340 MWh of electricity was realised on December 23<sup>rd</sup>. Minimum hourly consumption in amount of 845 MWh was registered on May 23<sup>rd</sup> in 4<sup>th</sup> hour and minimum daily consumption in amount of 27 296 MWh on June 19<sup>th</sup>, 2016.

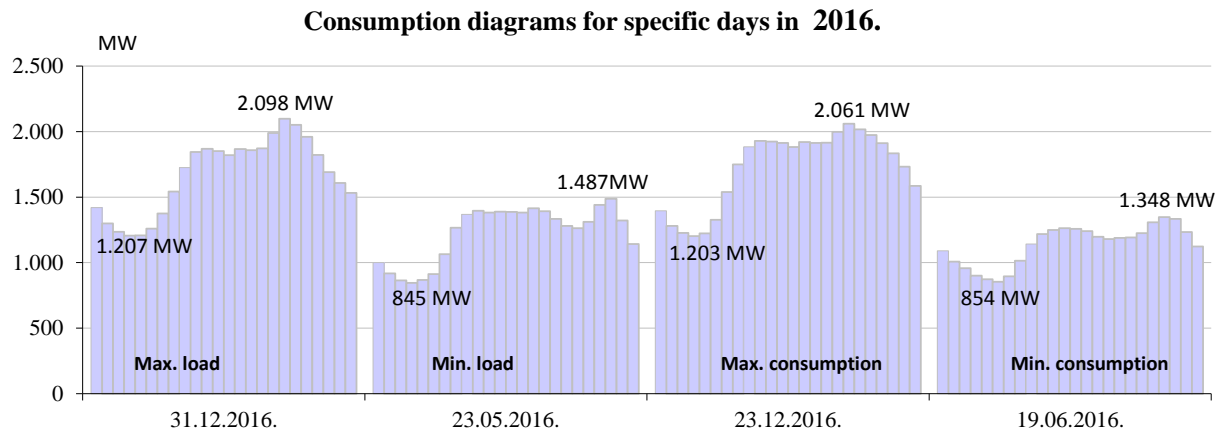
Maximum hourly load of the system including own consumption, the power plants' own consumption and losses amounted to 2 157 MWh/h.

### Specific consumption in 2016.

Max. hourly load			Min. hourly load			Max. daily consumption		Min. daily consumption	
MWh	Day	Hour	MWh	Day	Hour	MWh	Day	MWh	Day
2.098	31.12.2016.	18:00	845	23.05.2016.	4:00	41.340	23.12.2016.	27.296	19.06.2016.

### Max. i min. hourly consumption through the months in 2016





## BALANCE OF ELECTRICITY IN THE TRANSMISSION SYSTEM

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	2016	2016/15
	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	%
<b>Electricity generation in the transmission system</b>														
(1) HPP	427.2	488.4	755.8	482.9	459.1	442.5	326.3	318.8	329.0	446.3	601.1	463.2	5,540.5	98.1%
(2) TPP	875.4	762.6	848.5	538.9	713.1	799.2	890.8	997.5	955.1	1,105.3	954.6	1,072.9	10,513.8	123.5%
(3) Generation TOTAL (1+2)	1,302.5	1,251.0	1,604.3	1,021.7	1,172.2	1,241.7	1,217.1	1,316.2	1,284.2	1,551.6	1,555.7	1,536.2	16,054.3	113.3%
(4) Power injection from distribution system	5.7	12.1	16.9	11.7	16.0	5.8	4.0	4.0	2.0	6.7	10.7	2.1	97.8	155.4%
<b>Import from the neighbouring power systems</b>														
(5) from EES Croatia	149.3	95.3	103.0	147.5	81.5	77.8	128.9	96.2	55.3	58.5	66.0	142.5	1,201.9	98.6%
(6) from EES Serbia	190.9	130.4	47.5	114.5	75.0	105.3	159.5	103.2	112.6	81.1	54.5	88.0	1,262.6	60.0%
(7) from EES Montenegro	30.0	42.8	44.2	52.1	91.6	26.5	26.8	18.5	46.5	79.7	112.3	48.1	619.1	112.7%
(8) Import TOTAL (5-7)	370.2	268.4	194.7	314.1	248.1	209.7	315.3	218.0	214.4	219.3	232.8	278.6	3,083.6	79.6%
(9) AVAILABLE ENERGY (3+4+8)	1,678.5	1,531.5	1,815.9	1,347.6	1,436.3	1,457.2	1,536.4	1,538.2	1,500.6	1,777.6	1,799.2	1,816.9	19,235.7	106.3%
<b>Takeover of electricity from the transmission system</b>														
(10) Distribution companies	915.9	794.2	848.2	720.7	728.6	702.3	747.1	737.4	722.3	805.4	826.6	988.0	9,536.8	100.5%
(11) Directly connected consumers*	196.1	175.7	196.6	194.1	197.4	191.9	197.9	198.8	191.4	194.0	195.9	211.5	2,341.3	105.0%
(12) Own consumption power	15	10	10	11	9	11	13	14	13	11	11	12	137.2	
(13) Takeover TOTAL (10+11+12)	1,127.0	979.7	1,054.4	925.2	935.3	905.2	957.7	949.7	926.7	1,010.3	1,033.1	1,211.1	12,015.4	102.5%
<b>Export to the neighbouring power systems</b>														
(14) for EES Croatia	284.5	362.0	486.6	213.3	350.5	352.7	342.3	292.2	413.5	602.4	589.2	368.2	4,657.3	113.3%
(15) for EES Serbia	27.8	32.8	71.1	24.8	39.4	30.6	21.6	36.8	20.3	34.2	48.4	44.6	432.5	163.1%
(16) for EES Montenegro	201.1	128.6	170.4	157.1	82.8	142.5	184.3	230.7	113.8	98.2	86.1	155.5	1,751.0	107.2%
(17) Export TOTAL (13-15)	513.4	523.4	728.2	395.2	472.8	525.8	548.2	559.7	547.6	734.7	723.7	568.3	6,840.8	113.9%
(18) Pumping	6.0	1.8	2.7	3.8	5.1	3.6	2.9	1.8	0.9	1.8	10.9	4.9	46.2	332.4%
(19) REQUIRED POWER(13+17+18)	1,646.4	1,504.9	1,785.2	1,324.2	1,413.2	1,434.5	1,508.8	1,511.3	1,475.2	1,746.8	1,767.8	1,784.3	18,902.4	106.5%
<b>Transmission losses</b>														
(19) Transmission losses (9-18)	32.1	26.6	30.6	23.4	23.1	22.7	27.6	27.0	25.5	30.8	31.4	32.6	333.3	92.7%
(20) In relation to available power (19)/(9)	1.91%	1.74%	1.69%	1.74%	1.61%	1.56%	1.80%	1.76%	1.70%	1.73%	1.75%	1.79%	1.73%	



## ELECTRICITY GENERATION IN THE TRANSMISSION SYSTEM

GENERATION	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	2016	2016/15
	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	%
HPP Jablanica	51,2	62,5	97,0	66,5	69,1	58,8	36,9	37,0	41,8	70,9	83,2	76,1	751,0	99,6%
HPP Grabovica	20,0	24,5	33,8	23,8	24,1	19,6	12,4	12,7	13,8	25,3	30,7	27,8	268,5	95,7%
HPP Salakovac	28,3	46,6	56,2	33,0	38,1	27,2	13,2	11,1	12,8	30,8	49,6	32,9	380,0	98,4%
HPP Višegrad	68,0	111,8	177,4	116,1	143,1	73,5	43,5	43,0	43,1	64,5	129,1	64,9	1.078,1	118,0%
HPP Trebinje 1	29,2	21,8	48,5	44,3	14,0	51,6	53,2	45,4	37,6	35,6	30,1	39,1	450,4	109,5%
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)	81,4	57,7	83,6	64,6	19,1	75,8	75,1	70,4	68,7	68,5	73,4	66,5	804,8	96,7%
HPP Bočac	19,3	29,2	41,2	26,1	29,7	15,2	13,8	13,2	11,2	15,6	23,7	13,3	251,6	93,4%
HPP Dub	2,3	3,2	4,5	4,0	4,3	3,1	2,3	2,2	1,3	2,7	3,5	2,0	35,4	
HPP Rama	55,2	20,6	59,1	32,9	28,5	59,6	44,2	57,2	69,8	77,9	91,8	90,1	687,3	85,0%
HPP Mostar	18,7	27,2	31,2	20,5	23,9	17,6	10,3	9,2	9,8	18,2	25,7	19,7	232,0	100,8%
HPP Jajce 1	21,3	27,5	36,2	27,4	25,9	17,0	12,0	9,7	11,8	16,7	23,2	15,8	244,4	96,5%
HPP Jajce 2	6,9	8,1	10,2	8,5	8,9	6,2	5,7	4,8	4,4	5,5	8,1	6,0	83,3	92,3%
PSHPP Čapljina	15,3	19,7	41,4	5,3	14,8	7,8	2,1	2,4	2,8	12,5	16,9	4,4	145,3	57,6%
HPP Peć-Mlini	3,2	9,4	13,7	4,8	4,0	3,4	1,0	0,4	0,1	0,0	3,7	1,7	45,4	68,7%
HPP Mostarsko Blato*	6,8	18,4	21,8	5,0	11,5	6,2	0,5	0,0	0,0	1,5	8,3	2,9	83,0	81,4%
<b>HYDRO POWER PLANTS</b>	<b>427,2</b>	<b>488,4</b>	<b>755,8</b>	<b>482,9</b>	<b>459,1</b>	<b>442,5</b>	<b>326,3</b>	<b>318,8</b>	<b>329,0</b>	<b>446,3</b>	<b>601,1</b>	<b>463,2</b>	<b>5.540,5</b>	<b>98,1%</b>
TPP Tuzla	325,3	291,1	334,8	228,7	189,3	206,4	334,9	297,2	264,5	405,9	301,9	354,1	3.534,2	106,6%
TPP Kakanj	195,9	97,9	101,2	90,4	153,2	213,6	235,3	171,1	203,2	257,5	227,8	205,1	2.152,0	113,2%
TPP Ugljevik	166,1	143,5	174,5	158,3	177,2	87,4	0,0	176,3	177,7	164,1	176,5	148,3	1.750,0	99,9%
TPP Gacko	149,4	130,6	81,7	12,0	158,3	144,9	137,6	149,4	114,2	131,3	140,8	161,3	1.511,7	97,8%
TPP Stanari	38,5	99,6	156,4	49,4	35,0	146,8	183,0	203,5	195,5	146,6	107,5	204,2	1.565,9	
<b>THERMAL POWER PLANTS</b>	<b>875,4</b>	<b>762,6</b>	<b>848,5</b>	<b>538,9</b>	<b>713,1</b>	<b>799,2</b>	<b>890,8</b>	<b>997,5</b>	<b>955,1</b>	<b>1.105,3</b>	<b>954,6</b>	<b>1.072,9</b>	<b>10.513,8</b>	<b>123,5%</b>
<b>GENERATION</b>	<b>1.302,5</b>	<b>1.251,0</b>	<b>1.604,3</b>	<b>1.021,7</b>	<b>1.172,2</b>	<b>1.241,7</b>	<b>1.217,1</b>	<b>1.316,2</b>	<b>1.284,2</b>	<b>1.551,6</b>	<b>1.555,7</b>	<b>1.536,2</b>	<b>16.054,3</b>	<b>113,3%</b>

## ELECTRICITY CONSUMPTION IN THE TRANSMISSION SYSTEM

CONSUMPTION	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	2016	2016/15
	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	%
<b>Take over from the transmission system</b>	<b>1.133,0</b>	<b>981,5</b>	<b>1.057,0</b>	<b>929,0</b>	<b>940,4</b>	<b>908,8</b>	<b>960,6</b>	<b>951,6</b>	<b>927,6</b>	<b>1.012,1</b>	<b>1.044,1</b>	<b>1.216,0</b>	<b>12.061,6</b>	<b>102,80%</b>
Distribution	394	346	371	319	322	312	344	339	341	381	383	459	4.309	104,33%
Directly connected consumers	41	37	36	39	38	38	39	36	34	33	39	48	459	
PP - own consumption	9	7	7	6	7	8	9	10	9	8	8	10	99	
<b>EPBiH</b>	<b>444,8</b>	<b>390,0</b>	<b>413,3</b>	<b>364,2</b>	<b>366,5</b>	<b>358,1</b>	<b>393,0</b>	<b>384,9</b>	<b>383,9</b>	<b>421,7</b>	<b>430,6</b>	<b>515,4</b>	<b>4.866,4</b>	
Distribution	387	335	360	303	306	290	290	280	278	311	328	389	3.858	104,74%
Directly connected consumers	8	1	14	13	14	13	13	16	15	13	14	17	151	
PP - own consumption	1	1	2	2	0	1	1	1	1	1	1	1	13	99,66%
<b>ERS</b>	<b>395,5</b>	<b>336,9</b>	<b>375,1</b>	<b>318,4</b>	<b>320,6</b>	<b>304,5</b>	<b>304,2</b>	<b>297,3</b>	<b>293,9</b>	<b>325,4</b>	<b>342,4</b>	<b>406,8</b>	<b>4.021,1</b>	
Distribution	135	113	118	99	100	100	113	118	104	114	116	141	1.370	99,32%
Directly connected consumers	128	120	128	123	127	122	126	128	124	128	124	128	1.506	
PP - own consumption	1	1	0	1	1	1	2	3	3	1	1	1	14	
Pumping regim - PHE Čapljina	6	2	3	4	5	4	3	2	1	2	11	5	46	332,42%
<b>EPHZHB</b>	<b>269,9</b>	<b>235,5</b>	<b>248,6</b>	<b>226,0</b>	<b>232,9</b>	<b>227,2</b>	<b>243,9</b>	<b>250,1</b>	<b>231,3</b>	<b>244,9</b>	<b>251,3</b>	<b>274,4</b>	<b>2.936,0</b>	
Distribution	0	0	0	0	0	0	0	0	0	0	0	0	0	
Directly connected consumers	19	18	19	19	19	18	19	19	19	19	19	19	227	
PP - own consumption	4	1	1	2	1	1	0	0	0	1	1	0	12	
<b>EFT</b>	<b>22,9</b>	<b>19,1</b>	<b>19,9</b>	<b>20,4</b>	<b>20,4</b>	<b>19,0</b>	<b>19,5</b>	<b>19,2</b>	<b>18,5</b>	<b>20,1</b>	<b>19,8</b>	<b>19,3</b>	<b>238,1</b>	

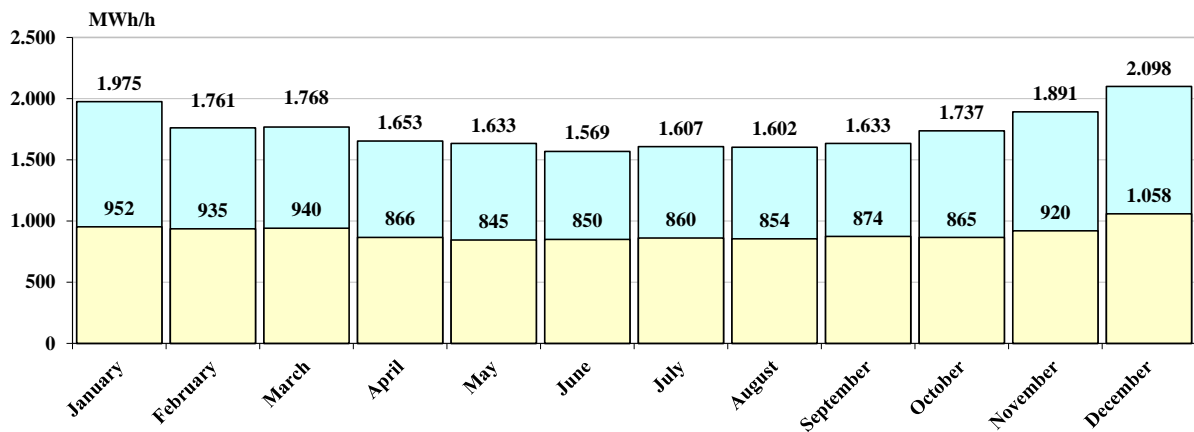
**Data on specific hourly and daily consumption in 2016.**

Month	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	1.975	5.1.2016	18	952	12.1.2016	4	39.068	5.1.2016	32.689	31.1.2016
February	1.761	6.2.2016	19	935	15.2.2016	4	35.493	5.2.2016	31.926	28.2.2016
March	1.768	25.3.2016	20	940	31.3.2016	4	35.274	24.3.2016	30.916	27.3.2016
April	1.653	27.4.2016	21	866	18.4.2016	4	33.136	25.4.2016	28.543	17.4.2016
May	1.633	4.5.2016	21	845	23.5.2016	4	32.536	4.5.2016	27.409	1.5.2016
June	1.569	24.6.2016	15	850	5.6.2016	6	32.039	24.6.2016	27.296	19.6.2016
July	1.607	13.7.2016	15	860	18.7.2016	4	32.431	13.7.2016	27.727	17.7.2016
August	1.602	31.8.2016	21	854	8.8.2016	4	31.685	5.8.2016	27.659	7.8.2016
September	1.633	26.9.2016	20	874	19.9.2016	4	31.189	10.9.2016	28.468	4.9.2016
October	1.737	31.10.2016	18	865	3.10.2016	4	33.572	29.10.2016	29.014	2.10.2016
November	1.891	30.11.2016	18	920	7.11.2016	4	37.130	30.11.2016	31.466	6.11.2016
December	2.098	31.12.2016	18	1.058	5.12.2016	4	41.340	23.12.2016	35.240	4.12.2016
<b>2016</b>	<b>2.098</b>	<b>31.12.2016</b>	<b>18</b>	<b>845</b>	<b>23.5.2016</b>	<b>4</b>	<b>41.340</b>	<b>23.12.2016</b>	<b>27.296</b>	<b>19.6.2016</b>

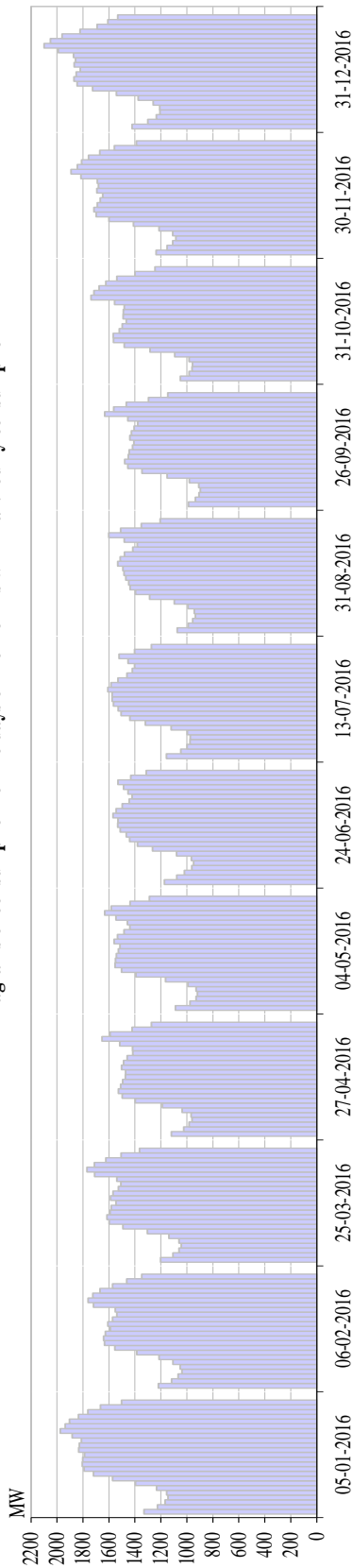
**Specific consumption in 2016.**

Max. hourly load			Min. hourly load			Max. daily consumption		Min. daily consumption	
MWh	Day	Hour	MWh	Day	Hour	MWh	Day	MWh	Day
2.098	31.12.2016.	18:00	845	23.05.2016.	4:00	41.340	23.12.2016.	27.296	19.06.2016.

**Minimum and maximum hourly load through the months in 2016**



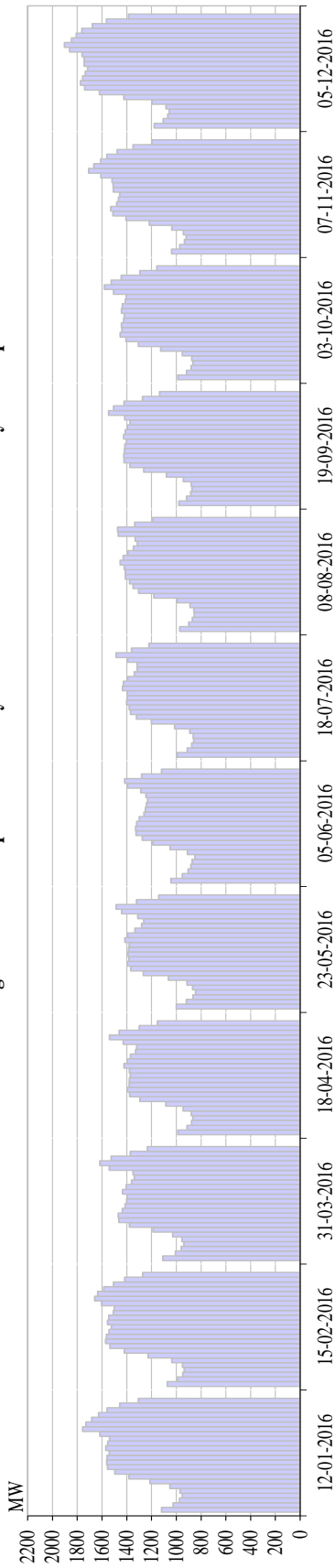
Diagrams of consumption for the days of the months with max.hourly consumption



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
<b>January</b>	1331	1.226	1.167	1.145	1.156	1.234	1.396	1.571	1.718	1.791	1.805	1.802	1.789	1.833	1.828	1.813	1.883	1.975	1.937	1.904	1.835	1.762	1.666	1.502	39.068
<b>February</b>	1.220	1.118	1.066	1.038	1.052	1.107	1.213	1.385	1.555	1.634	1.641	1.627	1.589	1.609	1.572	1.539	1.550	1.719	1.761	1.724	1.668	1.571	1.463	1.347	34.770
<b>March</b>	1.202	1.106	1.061	1.043	1.060	1.138	1.304	1.492	1.598	1.615	1.591	1.582	1.546	1.587	1.569	1.527	1.507	1.539	1.710	1.768	1.712	1.623	1.507	1.365	34.750
<b>April</b>	1.119	1.025	983	960	967	1.036	1.188	1.398	1.498	1.526	1.509	1.494	1.474	1.471	1.503	1.488	1.459	1.416	1.418	1.516	1.653	1.591	1.422	1.274	32.385
<b>May</b>	1.087	975	929	918	928	992	1.164	1.391	1.503	1.553	1.550	1.543	1.526	1.516	1.560	1.533	1.483	1.440	1.458	1.546	1.633	1.582	1.437	1.289	32.536
<b>June</b>	1.172	1.077	1.019	962	947	965	1.080	1.264	1.379	1.440	1.466	1.513	1.532	1.530	1.569	1.545	1.498	1.444	1.421	1.453	1.488	1.530	1.431	1.313	32.039
<b>July</b>	1.156	1.046	999	975	975	996	1.121	1.319	1.438	1.507	1.528	1.565	1.575	1.575	1.607	1.585	1.530	1.461	1.419	1.403	1.453	1.522	1.403	1.273	32.431
<b>August</b>	1.075	990	954	934	943	991	1.096	1.286	1.396	1.436	1.448	1.470	1.484	1.492	1.532	1.514	1.480	1.415	1.382	1.482	1.602	1.510	1.351	1.205	31.467
<b>September</b>	988	935	907	896	907	981	1.152	1.345	1.454	1.478	1.452	1.444	1.418	1.408	1.438	1.427	1.407	1.378	1.455	1.633	1.564	1.466	1.296	1.147	30.975
<b>October</b>	1.050	983	961	956	983	1.092	1.283	1.483	1.564	1.566	1.520	1.498	1.467	1.490	1.490	1.481	1.556	1.737	1.716	1.675	1.624	1.539	1.399	1.244	33.355
<b>November</b>	1.237	1.151	1.109	1.085	1.109	1.215	1.412	1.599	1.699	1.716	1.689	1.667	1.648	1.692	1.681	1.689	1.816	1.891	1.843	1.811	1.757	1.670	1.557	1.388	37.130
<b>December</b>	1.421	1.300	1.235	1.207	1.208	1.259	1.375	1.543	1.725	1.845	1.869	1.852	1.821	1.867	1.858	1.872	1.990	2.098	2.051	1.961	1.822	1.692	1.608	1.531	40.010

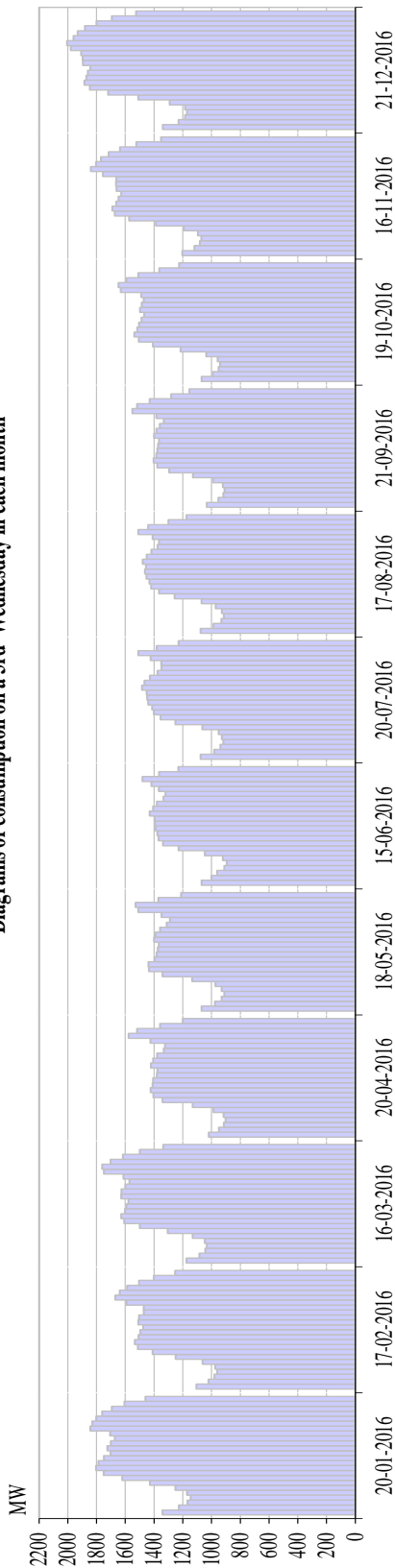
Diagrams of consumption for the days of the months with min. hourly consumption



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	24	Σ
<b>January</b>	1119	1025	974	952	970	1052	1213	1382	1497	1556	1562	1558	1541	1569	1554	1540	1617	1756	1731	1684	1629	1559	1456	1306	33.801
<b>February</b>	1072	990	948	935	950	1036	1228	1421	1536	1570	1564	1543	1523	1556	1544	1508	1499	1604	1659	1634	1586	1508	1416	1272	33.104
<b>March</b>	1110	1007	961	940	956	1030	1189	1378	1463	1468	1436	1414	1402	1398	1434	1404	1361	1339	1350	1351	1316	1287	1234	1152	31.327
<b>April</b>	988	914	878	866	878	945	1086	1293	1378	1395	1381	1379	1372	1379	1422	1398	1371	1329	1320	1428	1539	1462	1300	1152	29.853
<b>May</b>	1001	918	865	845	868	913	1064	1267	1368	1396	1382	1390	1386	1381	1415	1393	1334	1280	1263	1312	1441	1487	1322	1143	29.434
<b>June</b>	1042	951	905	882	872	850	911	1050	1191	1274	1326	1328	1319	1298	1260	1248	1240	1232	1246	1287	1395	1417	1280	1119	27.925
<b>July</b>	995	912	876	860	863	890	1014	1201	1322	1370	1381	1401	1398	1395	1435	1427	1393	1339	1316	1316	1393	1486	1362	1221	29.566
<b>August</b>	973	900	871	854	858	889	995	1181	1305	1350	1377	1412	1412	1421	1453	1430	1390	1345	1315	1331	1469	1473	1335	1192	29.531
<b>September</b>	978	916	885	874	878	944	1080	1262	1375	1422	1424	1419	1415	1404	1426	1412	1396	1374	1416	1546	1507	1422	1273	1135	30.184
<b>October</b>	988	917	880	865	876	952	1126	1305	1406	1454	1440	1443	1426	1420	1444	1436	1411	1405	1506	1580	1525	1445	1294	1157	30.702
<b>November</b>	1038	972	935	920	943	1036	1218	1406	1511	1528	1481	1467	1456	1508	1511	1519	1609	1708	1666	1611	1560	1478	1350	1197	32.628
<b>December</b>	1179	1106	1070	1058	1083	1198	1424	1622	1740	1773	1756	1736	1716	1744	1744	1761	1861	1903	1845	1807	1762	1677	1563	1386	37.514

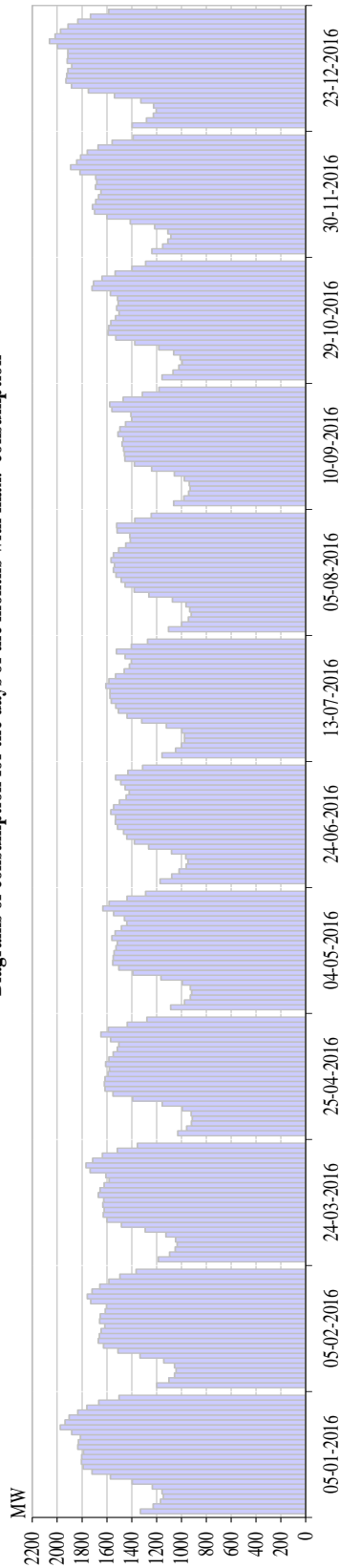
Diagrams of consumption on a 3rd Wednesday in each month



Diagrams of consumption on a 3rd Wednesday in each month

	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	
<b>January</b>	1341	1.227	1.168	1.145	1.170	1.251	1.429	1.621	1.751	1.804	1.787	1.749	1.703	1.725	1.700	1.672	1.706	1.844	1.829	1.803	1.760	1.693	1.606	1.460	37.944	
<b>February</b>	17-02-2016	1.106	1.021	980	961	974	1.062	1.250	1.410	1.513	1.534	1.508	1.476	1.509	1.504	1.472	1.471	1.592	1.669	1.659	1.587	1.504	1.402	1.253	32.894	
<b>March</b>	16-03-2016	1.175	1.084	1.044	1.033	1.046	1.132	1.304	1.499	1.608	1.628	1.602	1.592	1.578	1.629	1.627	1.599	1.572	1.613	1.749	1.761	1.702	1.616	1.499	1.336	35.028
<b>April</b>	20-04-2016	1.020	949	914	902	916	986	1.132	1.341	1.405	1.424	1.409	1.406	1.381	1.378	1.422	1.406	1.379	1.332	1.324	1.425	1.577	1.518	1.358	1.199	30.503
<b>May</b>	18-05-2016	1.070	977	931	910	931	973	1.134	1.341	1.436	1.439	1.396	1.382	1.375	1.367	1.400	1.389	1.357	1.312	1.290	1.348	1.509	1.528	1.369	1.212	30.376
<b>June</b>	15-06-2016	1.070	1.001	960	910	895	921	1.047	1.229	1.337	1.368	1.378	1.389	1.394	1.396	1.430	1.406	1.380	1.334	1.320	1.367	1.418	1.481	1.365	1.231	30.027
<b>July</b>	20-07-2016	1.076	982	939	917	928	951	1.065	1.252	1.355	1.400	1.413	1.441	1.448	1.451	1.484	1.467	1.428	1.375	1.347	1.350	1.423	1.510	1.383	1.230	30.616
<b>August</b>	17-08-2016	1.077	986	932	914	929	971	1.069	1.256	1.364	1.420	1.432	1.452	1.463	1.455	1.478	1.450	1.419	1.376	1.364	1.410	1.509	1.442	1.300	1.175	30.644
<b>September</b>	21-09-2016	1.034	952	917	909	922	990	1.129	1.295	1.377	1.403	1.384	1.377	1.372	1.366	1.399	1.384	1.360	1.332	1.383	1.350	1.519	1.430	1.281	1.154	30.220
<b>October</b>	19-10-2016	1.070	992	951	941	958	1.036	1.216	1.408	1.506	1.537	1.516	1.504	1.488	1.469	1.498	1.486	1.471	1.490	1.632	1.647	1.592	1.509	1.363	1.226	32.503
<b>November</b>	16-11-2016	1.204	1.119	1.081	1.071	1.096	1.193	1.387	1.573	1.673	1.690	1.662	1.647	1.628	1.661	1.664	1.663	1.756	1.840	1.803	1.769	1.716	1.637	1.523	1.351	36.406
<b>December</b>	21-12-2016	1.339	1.229	1.184	1.171	1.184	1.291	1.510	1.719	1.846	1.885	1.871	1.860	1.844	1.894	1.897	1.907	1.979	2.004	1.960	1.931	1.880	1.801	1.694	1.525	40.407

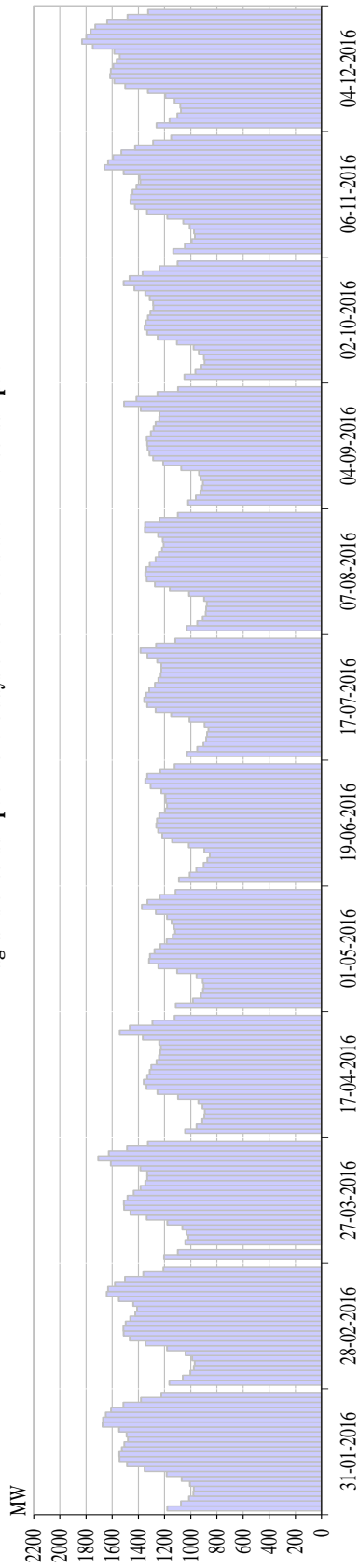
Diagrams of consumption for the days of the months with max. consumption



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
<b>January</b>	1331	1.226	1.167	1.145	1.156	1.234	1.396	1.571	1.718	1.791	1.805	1.802	1.789	1.833	1.828	1.813	1.883	1.975	1.937	1.904	1.835	1.762	1.666	1.502	39.068
<b>February</b>	1.198	1.100	1.056	1.043	1.055	1.142	1.333	1.511	1.626	1.669	1.660	1.647	1.617	1.658	1.653	1.613	1.603	1.730	1.758	1.719	1.656	1.584	1.495	1.365	35.493
<b>March</b>	1.186	1.095	1.050	1.034	1.046	1.125	1.291	1.483	1.599	1.628	1.623	1.631	1.626	1.668	1.655	1.622	1.582	1.608	1.734	1.767	1.714	1.636	1.515	1.354	35.274
<b>April</b>	1.029	958	919	913	921	992	1.155	1.393	1.551	1.615	1.621	1.615	1.591	1.581	1.610	1.584	1.549	1.516	1.505	1.569	1.647	1.589	1.437	1.278	33.136
<b>May</b>	1.087	975	929	918	928	992	1.164	1.391	1.503	1.553	1.550	1.543	1.526	1.516	1.560	1.533	1.483	1.440	1.458	1.546	1.633	1.582	1.437	1.289	32.536
<b>June</b>	1.172	1.077	1.019	962	947	965	1.080	1.264	1.379	1.440	1.466	1.513	1.532	1.530	1.569	1.545	1.498	1.444	1.421	1.453	1.488	1.530	1.431	1.313	32.039
<b>July</b>	1.156	1.046	999	975	975	996	1.121	1.319	1.438	1.507	1.528	1.565	1.575	1.607	1.585	1.530	1.461	1.419	1.403	1.453	1.522	1.403	1.273	32.431	
<b>August</b>	1.104	998	944	922	933	963	1.072	1.262	1.380	1.454	1.485	1.527	1.548	1.538	1.566	1.548	1.506	1.449	1.412	1.415	1.518	1.522	1.376	1.243	31.685
<b>September</b>	1.063	980	942	930	937	978	1.057	1.240	1.379	1.454	1.458	1.466	1.477	1.469	1.511	1.495	1.449	1.400	1.406	1.559	1.576	1.469	1.314	1.181	31.189
<b>October</b>	1.157	1.068	1.020	995	1.009	1.063	1.181	1.376	1.528	1.591	1.585	1.568	1.529	1.502	1.521	1.509	1.515	1.571	1.720	1.706	1.640	1.533	1.398	1.288	33.572
<b>November</b>	1.237	1.151	1.109	1.085	1.109	1.215	1.412	1.599	1.699	1.716	1.689	1.667	1.648	1.692	1.681	1.689	1.816	1.891	1.843	1.811	1.757	1.670	1.557	1.388	37.130
<b>December</b>	1.395	1.281	1.226	1.203	1.224	1.327	1.539	1.749	1.885	1.929	1.923	1.914	1.883	1.920	1.914	1.915	1.998	2.061	2.017	1.973	1.913	1.834	1.732	1.586	41.340

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



Diagrams of consumption for the days of the months 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	1180	1075	1014	981	976	1006	1068	1185	1352	1487	1545	1546	1526	1508	1479	1491	1548	1673	1671	1649	1609	1515	1380	1225	32.689
February	1164	1061	1002	977	970	989	1039	1181	1345	1465	1513	1514	1496	1462	1423	1409	1439	1549	1642	1631	1579	1502	1363	1209	31.926
March	1204	1098	1000	1041	1018	1032	1064	1179	1336	1461	1510	1511	1483	1436	1384	1348	1332	1333	1386	1611	1707	1627	1486	1328	30.916
April	1043	956	912	896	892	911	941	1097	1254	1338	1359	1333	1314	1301	1262	1242	1233	1228	1240	1367	1542	1466	1293	1124	28.543
May	1115	984	923	907	902	909	955	1104	1248	1319	1313	1277	1233	1184	1138	1121	1129	1146	1180	1266	1373	1330	1237	1117	27.409
June	1090	1008	958	901	874	854	895	1015	1143	1218	1249	1263	1258	1240	1197	1181	1189	1192	1225	1307	1348	1333	1233	1123	27.296
July	1030	950	903	882	876	864	894	1010	1149	1268	1333	1356	1342	1318	1273	1247	1230	1225	1224	1256	1331	1384	1265	1117	27.727
August	1031	951	909	886	882	877	898	1013	1159	1273	1336	1347	1340	1314	1269	1244	1220	1208	1214	1250	1351	1349	1239	1099	27.659
September	1020	961	926	914	906	925	937	1072	1210	1288	1315	1330	1333	1336	1305	1284	1268	1240	1239	1382	1510	1416	1255	1097	28.468
October	1048	965	919	894	899	938	979	1105	1253	1332	1352	1344	1327	1308	1286	1288	1313	1347	1430	1513	1467	1368	1238	1100	29.014
November	1134	1045	992	968	975	1008	1057	1179	1335	1428	1461	1458	1445	1416	1385	1390	1513	1660	1632	1593	1530	1426	1288	1150	31.466
December	1261	1162	1103	1074	1080	1123	1194	1328	1500	1585	1616	1611	1592	1566	1543	1584	1748	1831	1797	1765	1730	1638	1484	1326	35.240



## SCHEDULED PROGRAMS WITH NEIGHBOURING TSOs

SCHEDULED FLOWS	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	2016
	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh	GWh
BiH -> HR (HEP-OPS)	205,1	83,8	110,4	236,4	106,1	138,0	197,4	153,9	114,5	54,7	110,6	251,1	1.761,9
BiH-<SR (EMS)	74,3	131,0	50,7	110,6	96,7	158,5	209,2	159,0	204,3	120,3	95,2	116,4	1.526,3
BiH-<CG (EPCG)	135,9	111,6	133,8	39,0	135,4	24,7	59,1	50,3	55,0	87,8	213,3	62,0	1.107,7
<b>(1) Import BiH</b>	<b>415,3</b>	<b>326,4</b>	<b>294,9</b>	<b>386,0</b>	<b>338,2</b>	<b>321,1</b>	<b>465,6</b>	<b>363,3</b>	<b>373,7</b>	<b>262,8</b>	<b>419,1</b>	<b>429,4</b>	<b>4.395,9</b>
BiH -> HR (HEP-OPS)	266,0	389,0	519,3	238,3	347,2	350,9	338,0	365,0	422,5	516,1	600,0	428,2	4.780,6
BiH -> SR (EMS)	143,0	142,7	224,5	127,6	137,7	132,8	108,4	118,9	140,7	166,8	265,9	198,8	1.907,8
BiH -> CG (EPCG)	144,5	53,2	84,9	106,7	76,3	153,6	251,2	220,7	144,5	96,7	44,6	93,1	1.470,1
<b>(2) Export BiH</b>	<b>553,5</b>	<b>585,0</b>	<b>828,8</b>	<b>472,7</b>	<b>561,2</b>	<b>637,3</b>	<b>697,6</b>	<b>704,6</b>	<b>707,7</b>	<b>779,6</b>	<b>910,5</b>	<b>720,0</b>	<b>8.158,4</b>
<b>(3) Balance BiH (2) - (1)</b>	<b>138,2</b>	<b>258,6</b>	<b>533,8</b>	<b>86,7</b>	<b>223,0</b>	<b>316,2</b>	<b>232,0</b>	<b>341,3</b>	<b>333,9</b>	<b>516,8</b>	<b>491,4</b>	<b>290,6</b>	<b>3.762,5</b>
Balance HR (HEP-OPS)	60,9	305,3	408,9	1,9	241,1	213,0	140,6	211,0	308,0	461,4	489,4	177,1	3.018,6
Balance SR (EMS)	68,6	11,7	173,8	17,0	41,0	-25,7	-100,8	-40,2	-63,6	46,5	170,7	82,4	381,5
Balance CG (EPCG)	8,6	-58,4	-48,9	67,8	-59,1	128,9	192,1	170,4	89,5	8,9	-168,7	31,1	362,4
Transit	224,3	219,9	214,8	220,5	240,1	223,9	278,5	228,0	257,7	211,3	311,5	240,7	2.871,3
Domestic trade													

## 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	-59	-10	-1.201	121	24	15.075	121	19	13.874
February	-83	-8	-964	120	18	10.241	120	13	9.277
March	-198	-15	-3.030	92	15	7.909	-198	7	4.878
April	-59	-7	-1.899	61	9	4.003	61	3	2.104
May	-135	-8	-2.968	89	14	5.321	-135	3	2.353
June	-91	-10	-2.132	64	12	6.071	-91	5	3.939
July	-61	-9	-1.520	76	12	6.595	76	7	5.075
August	-29	-5	-819	180	15	8.609	180	10	7.790
September	-36	-8	-1.633	239	18	9.359	239	11	7.726
October	-38	-7	-3.026	45	8	2.582	45	-1	-444
November	-57	-9	-4.341	42	7	1.555	-57	-4	-2.786
December	-313	-12	-4.625	57	8	2.985	-313	-2	-1.641
<b>2016</b>	<b>-313</b>	<b>-9</b>	<b>-28.159</b>	<b>239</b>	<b>14</b>	<b>80.310</b>	<b>-313</b>	<b>6</b>	<b>52.146</b>