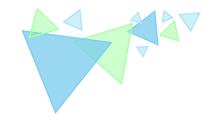
# SEEPEX Annual Report for 2018



# **Table of Contents**

Foundation and activity	3
General part - Identity card of the company	j 4
Bussines activity	5
Role in the Wholesale Market for Electricity	j 5
Management of the Company and Organizational Structure	j 6
Trading procedures	j 7
Production, consumption and installed capacity of electricity in Serbia	j 8
Installed production capacity and production by type	j 8
Membership	j 9
Price and volume trends on the SEEPEX spot market	j 10
SEEPEX share in total consumption in Serbia	j 12
Total trade on SEEPEX (HHI index)	j 12
Balancing energy price in comparison to spot price	j 13
SEEPEX day-ahead key indicators	j 13
Independent auditors report	j 14

### Foundation and activity

The Energy Law has defined the organized market of electricity as an institutionally regulated relationship between the supply and demand of participants on the market of electricity, with predetermined standardized products and physical delivery, within the time frame of one day before and within the day, recognizing the management of the organized market of electricity as one of its energy related activities. Also, Article 179 of the Law prescribes the obligation of J.S.C. Elektromreža Srbije, as the operator of the transmission system, to establish an operator of the organized market of electricity. The Government of the Republic of Serbia, on a session held on February 28, 2014, has adopted the Decision no. 312-1864/2014, which officially accepts the Report on measures introduced in order to establish an organized market of electricity in the Republic of Serbia, and recommends J.S.C. EMS to start the activities towards the establishment of the organized electricity market and the Market operator, with 25% share of EPEX SPOT in the share capital of the newly established company.

The implementation of this business model in Serbia required, among other things, harmonization of other primary and secondary legislation in the field of energy and financial legislation. In that context, Serbian Government has passed the Law on amendments and supplements to the Law on VAT ('Official Gazette of RS', no. 83/2015), which has brought substantial innovations regarding VAT-related obligations in Serbia that directly affect the determination of tax debtor, registering a foreign entity for VAT, VAT exemption for import, etc. Also, the Ministry of Mining and Energy adopted a Regulation on the license for performing energy activities and certification ('Official Gazette of RS', no. 87/2015), which regulates the conditions of issuing and revoking licenses, enabling foreign entities to be registered and obtain a license for conducting energy activity of wholesale of electricity in the Republic Serbia.

Since the function of clearing and the so-called "central contracting party" is practically non-existent in Serbia at

the satisfactory level, the Energy Law defines the possibility of clearing and financial settlement in the organised market being performed abroad, i.e. in a European country. As an important segment of the entire concept, the Energy Law (Article 181, Par. 3), defines that in such a case 'all the payments, collections and transfers on the basis of financial settlement between organised power market participants will be carried out in EUR'. This enabled the implementation of the defined market model and participation of foreign companies on the power market in the Republic of Serbia, which was one of the preconditions for SEEPEX to start operating, i.e. for the start of functioning of the day-ahead market. Pursuant to the above, after months of preparatory activities and obtaining the required approval of all relevant state authorities, SEEPEX was finally registered on July 14, 2015 as a joint stock company where J.S.C. EMS owns 75% of shares, while EPEX SPOT owns 25%. After the completed membership process for the member's participation on SEEPEX, the first transactions on SEEPEX started on February 17 2016.



Shareholder structure in SEEPEX

# General part - Identity of the company

he company is registered in the Register of Companies in the Business Registers Agency of the Republic of Serbia as SEEPEX Akcionarsko društvo Beograd. Its registration number in the single taxpayers register is BD 61538/2015 of July 14, 2015 and BD 72365/2016 of September 12 (The second portion of payment).

Name of the joint stock company SEEPEX akcionarsko društvo Beograd

Short name Name of the joint stock company

Translation of the name of a foreign language SEEPEX societe anonyme Belgrade – French

language

SEEPEX JSC Belgrade - English language

The predominant business activity of the Company Trade of electricity

The duration Unlimited

Legal form Joint stock company, non-public joint stock company

For the commitments of legal transactions towards Shall be liable with all its assets

third parties

Identification number Agency for Business Registers 21121070

Tax Identification Number 109064704

Established 14.07.2015

Company headquarters Beograd, Vojvode Stepe 412

Telephone-Switchboard +381 11 3972-941

Basic capital of the Company

Consists of pecuniary contributions:

Subscribed 240.000.000 RSD

Paid 180.000.000 RSD

(I Payment 12.07.2015 (60.000.000 RSD), II Payment 31.08.2016 (60.000.000 RSD) III Payment 01.09.2017 (60.000.000 RSD))

Number of shares 240.000

Shareholders J.S.C. Elektromreža Srbije Beograd 75%

EPEX SPOT SE Paris 25%

The legal (statutory representatives)

Individual: Managing Director Miloš Mladenović, MSc

Supervisory board: President and two members
Supervisory board: President and two members

Register founding agreements Foundation Agreement of the company on July 8,

2015.

The company performs the activity of the Organized market operation, which is an institutionally regulated relationship between the supply and demand of the participants on the organized electricity market, with pre-determined standardized products of electricity and delivery within the time frame "day ahead" and

"intraday" ("Market"). The company can perform all business activities for which the conditions laid down by the Law and other regulations were met, pursuant to the Decision of the Government of Serbia 05 no. 023-6656/2015-1 of June 18, 2015.



# Role in the Wholesale Market for Electricity

The core business of SEEPEX consists in operating an organized electricity market (power exchange) for the Serbia.

It provides a market place where exchange members send their orders to buy or sell electricity inside Serbian delivery area. The role of SEEPEX consists in matching these orders in a transparent manner, according to the public SEEPEX Market rules. As a result of the order matching, SEEPEX produces trades which are legally binding agreements to purchase or sell a determined quantity of electricity for the cleared price. This price is never higher than the purchase price fixed by the buyer or lower than the sale price offered by the seller. The trades are transferred to the central counterparty, the European Commodity Clearing (ECC), which becomes the counterparty to the buyer and to the seller who do not know each other. ECC takes the obligations of the buyer to pay for the electricity to the seller, and of the seller to deliver the electricity to the buyer. It nominates the exchange of energy to the Transmission System Operator (EMS) and calls for the money pertaining to the trade from

the buyer and hands it over to the seller. This process guarantees:

- fair and orderly execution of the orders of the exchange members,
- secure delivery and payment of the trades,
- anonymous transactions.

As an important information of this process, SEEPEX publish the prices resulting from the trades. Since the trades result from an open and transparent competition between the orders of the exchange members, they reflect the best information available at the time on the market conditions inside Serbia and SEE region. They are the most reliable prices available for the short-term electricity. These prices represent the reference prices for the Serbian wholesale market.



# Management of the Company and Organizational Structure

Management of the Company is organized on the principle of two-tier management. The relevant bodies of the company are: - The General Assembly – in charge of making decision in accordance with the Law on Companies, - Managing Director – the legal representative of the company, Miloš Mladenović, MSc Electrical Engineering - Supervisory board – in charge of making the key business decisions related to activities of the company.

SEEPEX organization also has the following exchange bodies:

- the Organized Market Committee;
- the Market Surveillance Office.

The Organized Market Committee and the Market Surveillance Office are two independent bodies that have been put in place in order to ensure state of the art governance rules.

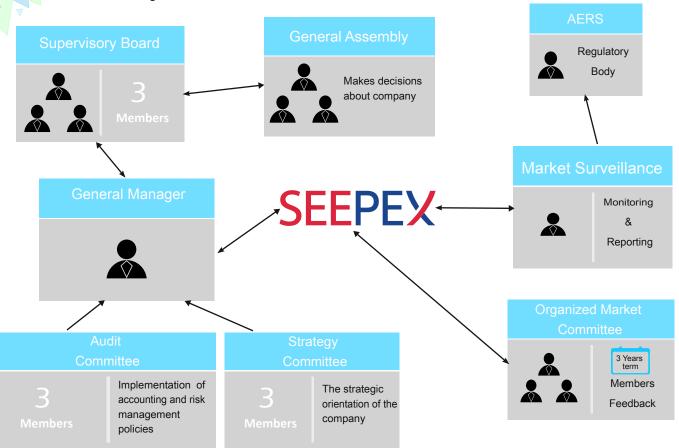
The Organized Market Committee is a body elected from the Exchange Members which decides on the Market Rules and on general decisions related to the

Exchange. The composition of the Organized Market Committee reflects the diversity of economic and corporate profiles among the different categories of Exchange Members: power trading companies, suppliers, transmission system operator, producers and commercial consumers.

Current members of Organized Market Committee are:

- Mr. Ivan Kalafatic, EFT trading
- Mr. Srdjan Resavac, GEN-I
- Mr. Tarik Khalil, INTERENERGO
- Mr. David Zarkovic, ELEKTROPRIVREDA SRBIJE
- Mr. Viktor Varga, MVM
- Mrs. Jadranka Janjanin, ELEKTROMREZA SRBIJE

The Market Surveillance Office monitors as an independent body on a daily basis the SEEPEX market and its Exchange Members. It continuously monitors the SEEPEX markets and checks that members comply with SEEPEX Market Rules. The Market Surveillance acts as a central point of contact that cooperates with the national regulatory authority.



SEEPEX Organizational Structure

# **Trading Procedures**



Trading in electricity on SEEPEX is on the basis of the 24 individual hours, for all 365 days of the year. Trading takes place on all days from Monday till Sunday. Exchange members submit their buy and sell orders using ETS platform from 45 days before to 10:15 in day D-1. Order book gate closure time is 10:15 and results are published on SEEPEX website by 10:30. Trading information is immediately sent to ECC for clearing purposes. Before 14:00 (D-1) ECC submits the schedules to EMS as a firmed schedule.

In the auction process, all bids and offers for a delivery of power at a specific hour of the following day are collected and one price for every hour in the day is calculated. This price is the optimal price for power, taking into account the characteristics of all orders submitted to the exchange for that specific hour. The auction is the

momentum of the spot power market, concentrating liquidity of the market at a specific time of the day and determining reference prices for a particular area.

At the moment SEEPEX offers linear and block products. Linear offer contains up to 256 price / quantity combinations for each individual hour of the next day, where prices must be between 0.0 € / MWh and 3000 € / MWh. The block offer that was introduced on SEEPEX on March 22, 2017 is a bid that connects more hours to the "all or nothing" principle, which means that the offer is accepted for all hours or is completely rejected. In the block it is possible to input different quantities of electricity for each hour of the block, with one price offered for the whole block.



#### Price Thresholds for Second Auction\*:

- Lower Threshold: 0.1 €/MWh

- Upper Threshold: 200 €/MWh

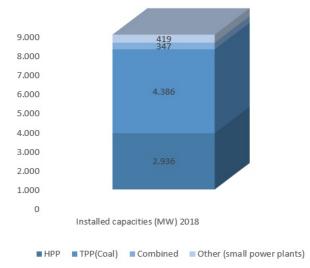


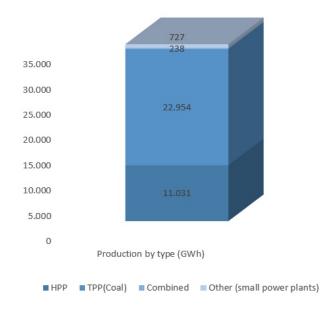
# Production, consumption and installed capacity of electricity in Serbia

### Installed production capacity and production by type

The total net installed production capacity of power plants in Serbia for 2018 is 8088 MW. The structure of the installed production capacities is shown in the table below. The share of thermal power plants (TE) and combined power plants is 54.2%, hydro power plants (HP) that are connected to the transmission system 36.3% and 5.18% represent small power plants connected to the distribution system.

Production Type	Installed capacities(MW)
HPP	2936
TPP(Coal)	4386
Combined	347
Other (small power plants)	419
Total	8088





n 2018, 34.95 TWh was produced, which is 1.4% more compared to the 2017. Coal plants produced 5.3% less, while production in HPP was 16.4% higher. The share of coal power plants production was 65.7%, hydro power plants 31.6%, combined 0.7% and small power plants 2.1%.

Production Type	2017(GWh)	2018(GWh)
HPP	9477	11031
TPP(Coal)	24240	22954
Combined	185	238
Other (small power plants)	538	727
Total	34441	34950

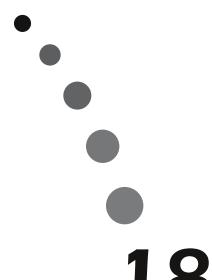
source: AERS

### Membership

SEPEX started its day-ahead market operation with 6 members on 17th of February 2016. A well-chosen and implemented business model and membership strategy have enabled SEEPEX to achieve the continuous growth of new members.. Increasing the number of members leads to higher liquidity, which again gives a good signal to new companies to access SEEPEX. The following figures show the trend of increasing the number of participants.

At the end of 2018, 18 exchange members from 9 countries were active on SEEPEX: 5 Serbian, 4 Slovenian, 2 Denmark as well as one company from Germany, Great Britain, Switzerland, Czech Republic, Bulgaria, Croatia and Bosnia and Herzegovina. The composition of the members on the exchange is given in the following table:

was the number of participants in January 2018



was the number of participants in December 2018

#### **Exchange Members**

1	GEN-I	SI
2	Energy Financing Team AG	СН
3	Interenergo d.o.o	SI
4	JP EPS Beograd	RS
5	Alpiq Energy SE	CZ
6	HEP d.d	HR
7	MVM Partner Serbia d.o.o Beograd	RS
8	Statkraft Markets GmbH	DE
9	EMS A.D. Beograd	RS
10	NIS a.d. Novi Sad	RS
11	Holding Slovenske Elektrane d.o.o.	SI
12	ERS	ВА
13	Petrol d.d. Ljubljana	SI
14	Neas Energy A/S	DK
15	Danske Commodities A/S	DK
16	Energy Supply	BG
17	Freepoint Commodities Europe LLP	GB
18	AB Energo	RS



# Price and volume trends on the SEEPEX spot market

he volume of electricity traded on SEEPEX's dayahead market in 2018 was 2.318.341,7 MWh. In comparison to the 2017 SEEPEX traded volume in 2018 increased for 173,53 %. The average price for year of 2018 was 50,15 €/ MWh, which is 1,8% higher price compared to 2017.

The largest monthly trade volume of 259.995,3 MWh was realized in December, and the daily maximum was realized on November 25, 2018 with 12.367,6 MWh. The smallest volume of monthly trade was in February and amounted 95.978,4 MWh. The highest hourly rate was reached on 22.11.2018. in 18-th hour and amounted to 126,98 €/MWh. The average annual price was 50,15 €/MWh and average peak price was 55,78 €/MWh.

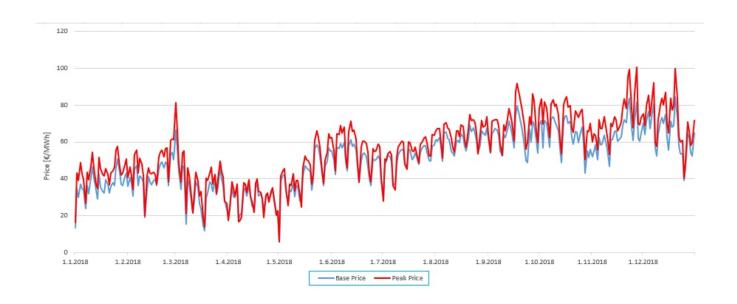
On chart below we can see that SEEPEX price got much higher from June. In the first half of the year average base price was 38,86 €/MWh and in second half base price was 61,34 €/MWh.

**2318.3** GWh was volume traded in 2018

**847.6** GWh was volume traded in 2017

**50.15**€/MWh was average base price in 2018

**55.78**€/MWh was average peak price in 2018





source: HUPX,OPCOM, GE/AT

#### SEEPEX prices compared to neighboring exchanges

Monthly volumes are shown in table 1. There can clearly be seen the trend of volume increase in 2018, when compared to 2017. It can be said that monthly volumes had a very big increase of 200.5 % on the average, when compared to 2017.

Monthly	2017	2018	Change [%]
January	50,3	125,6	149,8
February	26,5	96,0	262,5
March	69,8	137,4	97,0
April	61,0	222,3	264,1
May	107,2	187,4	74,8
June	78,6	229,9	192,4
July	44,0	242,6	450,9
August	57,8	184,6	219,3
September	58,3	186,9	220,3
October	74,0	196,8	165,7
November	75,7	248,9	228,8
December	144,2	260,0	80,3

Table 1 - Comparison of monthly volumes in 2017 and 2018

259.995,3MWh was highest monthly volume in 2018



# SEEPEX share in total consumption in Serbia

The total amount of electricity that was traded on SEEPEX in 2018 was 2.318.341,7 MWh. The share of electricity traded on the organized market in relation to the electricity delivered to all end customers of electricity is 6.9%, while 18.5% is the share of the exchange in relation to the energy delivered to end customers that are supplied in the free market (freely retail market). In the wholesale market, the share of the market is 32.6%, where the wholesale market implies a bilateral market (purchase and sale of electricity between the electricity supplier) and the purchase or sale of electricity on the organized market.

# Total trade on SEEPEX (HHI index)

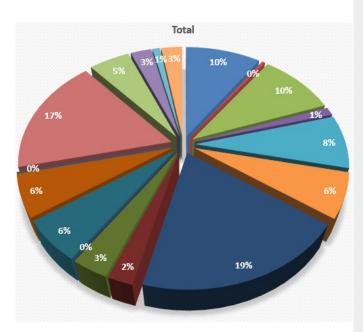


Chart - Percentage of trade by participant HHI = 1080

33,6 TWh

was gross consumption in Serbia in 2018

2318,34<sub>GWh</sub>

was trade on SEEPEX in 2018

6.9%

was SEEPEX share in total consumption in 2018

18.5%

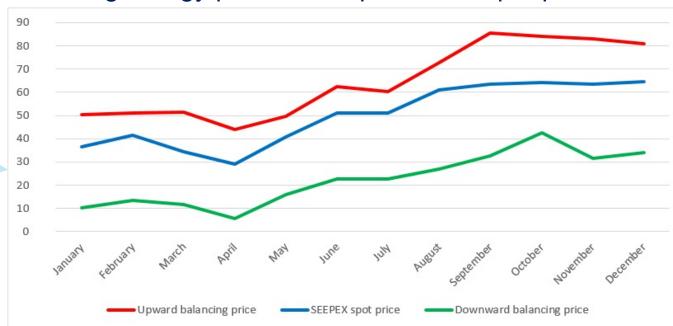
was SEEPEX share in free market in 2018

32.6%

was SEEPEX share in internal bilateral market in 2018



### Balancing energy price in comparison to spot price



### SEEPEX day-ahead key indicators

	2017	2018	Change[%]
Base price MAX(day) €/MWh	151.31	84.64	-44.06
Base price MIN(day) €/MWh	9.89	8.07	-18.4
Peak price MAX(day) €/MWh	181.55	100.6	-144.59
Peak price MIN(day) €/MWh	14.99	5.64	-62.37
Price MAX(hourly) €/MWh	205.68	126.98	-38.26
Base volume MAX(day) MWh	8 270.6	12 367.6	49.54
Base volume MIN(day) MWh	260.2	920.3	253.69
Base volume SUM(year) MWh	847 556.7	2 318 341.7	173.53
Daily average volume(year) MWh	2 319.92	6 351.62	173.79
Daily average base price(year) €/MWh	51.05	50.15	-1.76
Daily average peak price(year) €/MWh	ז 59.19	55.78	5.76
Volume MAX (hourly) MWh	551.6	846	53.37



In 2018. it is recorded year-to-year trading volume increase in the amount of 173%. The main reason for this significant trading volume increase (unseen in the SEE region so far in the isolated mode, i.e. without market coupling implemented) and corresponding SEEPEX financial result achieved much better than expected, is combination of several internal (additional cost saving, increase of the size of block offers, announcement of cooperation with EEX) and external reasons (market coupling SLO-CRO).

The introduction of block products for trade at SEEPEX, was successfully made in March of 2017. The first Block value range was from 1-10 MWh, and block sizes were some of the predefined hourly offers (peak - 09-20h, off peak 1 - 01-08h, off peak 2 - 21-24h), or individually defined by participants. This business decision, implemented according to the members needs, provided a sufficient liquidity increase, influencing a total traded volume increase of approx. 30% in 2017.

In April of 2018, the Block bids range was increased from 10 MWh to 20MWh, and this development provided additional increase of the SEEPEX trading volume.

On the other hand, membership structure showed inconsistant increase during 2017 and 2018. Having in mind that 2017 was very hard and volatile from a hydrological and pricing standpoint providing an additional corresponding risk for regional trading companies (some companies' expirienced setbacks and even went bankrupt), in 2018. we have recorded satisfactory result of five new members registered on SEEPEX, with several other foreign companies in the stage of sharing of information and risk assessment.

Regarding the regional development and plans for 2019, SEEPEX is committed to continue with the ongoing market coupling projects (coupling with the MRC/4MMC as a first priority, new trilateral market coupling initiative with the Bulgaria and Croatia), with an introduction of financial derivatives in the electricity market in Serbia (futures) as an important milestone for future development.

Futures are a brand new product in this area that gives a modern perspective of trade in the wholesale electricity market. The introduction of financial derivatives would significantly improve the overall Serbian investment framework, not only in the energy sector, but also in the entire economy, providing the long-term reference price of the electricity. The introduction of financial derivatives on the Serbian power market is envisaged for the second quarter of 2019. EEX (European Energy Exchange), our partner in this project, will initially introduce basic weekly, monthly, quarterly and annual futures for the Serbian market, while corresponding financial settlement will be made in relation to the SEEPEX reference price. It is expected that this important development, beside strong importance for overall investment framework providing the Serbian economy with the long-term reference price, will provide SEEPEX with an additional liquidity and with some new potential members which can benefit from this long-term hedging tool, currently not present in the SEE region.

Also, having in mind the competition provisions set in the CACM GL (not transposed yet in the SEE region, but planned for transposition in following years) and current trend in the most developed European markets, SEEPEX started very ambitious and promising initiative for the business/corporate integration with the Hungarian power exchange - HUPX. This project is designed in accordance with the best European practice (successful corporate merger of EPEX SPOT and APX into a single company is the latest in the series of such example) and with the strong support of EMS and EPEX SPOT.

As it is well-known, one of the main benefits of the organized power market, in addition to the financial security and corresponding risk mitigation, is a fair and transparent price formation. From the very start of operation and sufficient liquidity obtained in the first few years, the SEEPEX day-ahead market price could be considered as a reference wholesale market price not only for the Serbian market area, but for the entire SEE region also, at the same time providing also a nice market place for an additional arbitrage with the neighboring EU markets (having in mind different GCT).

## Independent auditors report





KPMG d.o.o. Beograd Kraljice Natalije 11 11000 Belgrade Serbia Tel.: +381 (0)11 20 50 500 Fax: +381 (0)11 20 50 550 www.kpmg.com/rs

TRANSLATION

#### **Independent Auditors' Report**

TO THE SHAREHOLDERS OF

SEEPEX A.D., BEOGRAD

We have audited the accompanying financial statements of Seepex a.d., Beograd ("the Company"), which comprise the balance sheet as at 31 December 2018, the income statement, statement of other comprehensive income, statement of changes in equity and statement of cash flows for the year then ended, and notes, comprising a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation of financial statements that give a true and fair view in accordance with accounting regulations effective in the Republic of Serbia, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with the Law on Auditing and applicable audit standards in the Republic of Serbia. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

KPMG d.o.o. Beograd, a Serbian limited liability company and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. Matični broj:17148656 PIB: 100058593 Račun: 265-1100310000190-61



#### TRANSLATION

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### Opinion

In our opinion, the accompanying financial statements give a true and fair view of the financial position of the Company as at 31 December 2018, and of its financial performance and its cash flows for the year then ended in accordance with the accounting regulations effective in the Republic of Serbia.

Belgrade, 29 March 2019

KPMG d.o.o. Beograd

(L.S.)

Vladimir Savković Certified Auditor

This is a translation of the original Independent Auditors' Report issued in the Serbian language. All due care has been taken to produce a translation that is as faithful as possible to the original. However, if any questions arise related to interpretation of the information contained in the translation, the Serbian version of the document shall prevail.

Belgrade, 29 March 2019

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KPMG d.o.o. Beograd

Brogumer Colxolert

Vladimir Savković Certified Auditor

