



**CROATIAN TRANSMISSION SYSTEM OPERATOR Ltd.,
ZAGREB**

**Annual Report
as of and for the year that ended on 31 December 2019**

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**2019 CROATIAN TRANSMISSION
SYSTEM OPERATOR Ltd.
MANAGEMENT REPORT**

Zagreb, April 2020

BASIC CHARACTERISTICS OF THE BUSINESS YEAR

In accordance with the current legislative and regulatory framework, the Croatian transmission system operator Ltd. (hereinafter: the Company or HOPS) has been duly performing its basic duties: electrical power system management (hereinafter: EPS) in the Republic of Croatia (hereinafter: RoC), electricity transmission, maintenance, development and construction of the transmission network, enabling the connection of new users to the transmission network under equal, transparent and non-discriminatory conditions, providing support to the development and functioning of the Croatian electricity market, as well as its connection with neighbouring electricity markets in the European union (hereinafter: EU) and the Energy Community.

Set business goals in 2019, in accordance with the Work Program of the Company Management Board for the 2018 – 2022 period were mostly achieved.

- **Electrical power indicators**

The 2019 business year was marked by the safe and reliable operation of the transmission network and the EPS, without major disruptions and interruptions in the electricity supply. The Company fulfilled its legally prescribed obligations and tasks in this regard. This, in addition to the appropriate usage of all Company resources, was significantly contributed by the implementation of maintenance and investment plans in a high percentage.

In 2019, the total energy consumption of 16.821 TWh was realised in the transmission network of the RoC, which is 2.76% less than the total consumption in 2018.

Maximum EPS of 3038 MW was recorded on 25 July 2019 at 14:00h.

In 2019, a total of 22.058 TWh of electricity was transferred, a reduction of 7.44% in comparison to 2018.

Transmission network losses were 387.9 GWh, i.e. 1.76% of total transmitted electricity, which is 27.34% less in comparison to 2018. Recorded lower loss values in the transmission network were caused by the very character of losses, i.e. by shorter duration of more extreme loads and more moderate meteorological conditions. These values of the transmission network losses are at the loss level of other transmission system operators in the EU.

- **Business performance**

In 2019, total revenue was HRK 1,727.2 million and the expenditures were HRK 1,561.8 million. Pre-tax profit of HRK 165.4 million was reduced by HRK 33.2 million of corporate income tax (current tax in the amount of HRK 28.8 million increased by deferred tax assets in the amount of HRK 4.4 million) and realised profit after tax for 2019 is HRK 132.2 million. Total pre-tax profit consists of the difference between revenues and expenditures from the allocation of cross-border transmission capacities in the amount of HRK 71.2 million and the difference of other revenues and expenditures in the amount of HRK 94.2 million.

Profit in 2019 after tax is HRK 44.0 million or 25.0% less than the profit for 2018. The largest share in operating revenues refers to the revenue from the provision of public service of electricity transmission which amounted to HRK 1,370.7 million in 2019, i.e. 79.4% of the total revenue.

- **HOPS certified independent transmission operator**

By issuing the Decision on issuing the certificate to HOPS by the Croatian Energy Regulatory Agency (hereinafter: HERA or the Agency) as an independent transmission operator (in 2016) and by fulfilling the conditions of the Decision concerned (in 2018), HOPS fulfilled its legal obligations in terms of separation from the vertically integrated entity.

In accordance with Art. 22 and 23 of the Electricity Market Act (OG 22/13, 95/15, 102/15, 68/18) (hereinafter: EMA) and with the HOPS Compliance Programme, the tasks of continuous supervision over the fulfilment of the conditions for the separation of HOPS as an independent transmission system operator from the vertically integrated entity fall under the regular competence of HERA and the Compliance officer at HOPS.

- **Integration of renewable energy sources**

In 2019, activities for creating the preconditions for further integration of renewable energy sources (hereinafter: RES) into the Croatian EPS on the basis of the obligations from the EMA and the Act on Renewable Energy Sources and High-Efficiency Cogeneration were continued. During 2019, the wind farm (hereinafter: WF) connection agreement with the connection power of 58 MW was concluded, annexes to the WF connection agreement with a connection capacity of 298 MW were concluded and activities were carried out on the preparation of 2 more connection agreements with investors who have expressed interest in concluding agreements with a total connection capacity of 78 MW. Also, one solar power plant (hereinafter: SPP) connection pre-agreement was concluded with the connection capacity of 130 MW, 3 preliminary power authorisations have been issued for a WF with the total connection capacity of 215 MW and one preliminary power authorisation for an SPP with the connection capacity of 130 MW was issued. Also, during 2019 there was interest in connecting the SPP with a total capacity of around 640 MW, interest in connecting geothermal power plants with a total capacity of 40 MW and interest in connecting WF with a total capacity of 220 MW. Interest was also expressed in a combined, zone approach to connecting SPP and WF with the total connection capacity of 295 MW.

- **Investments**

The Company made HRK 553.05 million of investments, i.e. realised 90.31% of the investment plan in 2019. When HRK 5.88 million of own investments (capitalised labour cost) is added to the achieved amount, total investments in 2019 amount to HRK 558.93 million. The high level of realisation of the Investment plan is the consequence of raising the quality of planning and periodical monitoring of plan implementation, including the adoption of corrective measures. Replacements and reconstructions of existing facilities, refurbishment of transmission network facilities and objects and investments in new facilities make up the majority of the Investment plan.

In the middle of 2019, the reconstruction works were completed on the TL (transmission line) 110 kV Slavonski Brod – Slavonski Brod 2 that was reconstructed as a double-system transmission line.

For SS 110/10 (20) Split 3 (Visoka), the 110 kV facility in GIS construction was taken over and a detailed design was made, and the construction contract for a 110 kV facility was signed. On 31/12/2019 the Contract for the replacement of the 110 kV external facility with GIS facility was signed.

The first and second phase of the reconstruction of the switchyard at the hydroelectric power plant Orlovac has been completed and the third one has been started. Completion of works is expected by 01.04.2020.

Second phase of refurbishment of the SS (substation) 110/35 kV Pračno has been finalised in the Zagreb Transmission area. In the second phase, replacement of primary and secondary equipment in eight bays was performed and the busbar system was replaced. In 2019 works on refurbishment and expansion of the 110 kV facility at SS 110/35 kV Ivanić Grad were continued and the replacement of complete primary and secondary equipment and the busbar system is planned as a part of it, as well as an expansion of additional two bays with a connection bay to connect TL 110 kV Mračin – Ludina to SS Ivanić Grad.

Shunt reactor at SS Mračin was put to test drive on 20/11/2019.

As part of the SINCRO.GRID project, in 2019 the contracts were concluded for the delivery and commissioning of a compensation facility at SS 400/220/110 kV Melina (VSR 200 MVAR) and SS 400/220/110 kV Konjsko (SVC 250 MVAR) necessary for the realisation of the project in accordance with the donation agreement. Also, all works on construction and commissioning of compensation facilities at the SS 220/110 kV Mraclin (VSR 100 MVAR) have been completed.

During 2019, HOPS issued 7 preliminary power authorisations for facilities connecting to the transmission network. On 26 April 2019 the final inspection for WF Krš Pađene was conducted, and the delivery of the connection WF Krš Pađene was performed on 23 December 2019, making HOPS the owner of SS 33/220 kV Pađene and its related connection 2x220 kV transmission line.

Three connection pre-agreements were concluded (SPP Obrovac Sinjski, electric traction substations Mrzlo Polje and Zdenčina), one connection agreement (WF Korlat) and one agreement on network usage (WF Krš Pađene).

In order to harmonise the contract on network usage with the applicable legislation, HOPS together with HEP Proizvodnja Ltd. in 2019 concluded 18 agreements on network usage where the calculation of the network usage fee is defined according to the billing metering point.

Ten-year transmission network development plan 2020-2029 with a detailed elaboration for the initial three-year and one-year period (hereinafter: 10G plan) was submitted to the Agency for review and approval in September 2019. Approval procedure for 10G plan is under way, and it is in line with the current ten-year European transmission network development plan (ENTSO-E TYNDP) and the environment in terms of transmission network connection, representing the basic development document of the Company.

- **Market activities of the Company**

In 2019 HOPS modernised its long-term electricity procurement process to cover transmission network losses by organising public bidding via an IT computer platform, i.e. by organising electronic auctions.

In this regard, HOPS and the CROATIAN POWER EXCHANGE Ltd (hereinafter: CROPEX) agreed on cooperation in developing and establishing an auction computer system for the implementation of auctions for the procurement of electricity to cover losses in the transmission network by CROPEX, and so they concluded the "Agreement on the regulation of mutual relations related to the implementation of auctioning for the procurement of electricity to cover losses in the transmission network" in May 2019, defining mutual relations and obligations related to electronic auction procedures via CROPEX trading platform.

In 2019 CROPEX started working on a special computer program, i.e. trading platform for organisation of auctions, and first auctions were successfully held during May for the delivery of electricity to cover losses in the transmission network for 2020, 2021 and 2022. HOPS also organised an educational workshop with market participants to provide them with a detailed explanation of the procurement procedure on CROPEX trading platform, and that they could exchange experiences and suggestions for improving the procurement procedure. These activities resulted in market launch, i.e., in active participation of market participants in biddings, creation of new products (quarterly products) and finally in savings for HOPS.

In October, November and December of 2019 there were further auctions for the delivery of electricity to cover losses in the transmission network for 2020, and additionally for the first and second quarter of 2020.

Croatian organised day-ahead market implemented by CROPEX was operationally connected for the first time in 2019 during that whole year across the Croatian - Slovenian border to the multi-regional connected electricity market as part of the SDAC (Single Day Ahead Coupling) project that connects markets representing 95% of European electricity consumption. Such

implicit manner of allocating trans-zone capacities represents the most advanced way of allocating trans-zone capacity in cooperation of transmission system operators and Croatian power exchange and represents a transitional step towards the full realization of the requirements of the Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management (hereinafter: The CACM Regulation).

On 18 November 2019, CROPEX and HOPS successfully finished the intraday market connection project on the Croatian - Slovenian and Croatian - Hungarian border as part of the SIDC (Single Intraday Coupling) project, previously known as XBID (Cross-Border Intraday). After many years of work on the project and a long and successful testing among the parties involved, operational start of work also means the transition to indirect way of allocation of intraday trans-zone transmission capacities for the Croatian – Slovenian border and Croatian - Hungarian border of trading zones. Adding to indirect allocation, direct access to capacity is provided at the Croatian-Slovenian border according to the request by HERA on 27 June 2018. This project multiplied liquidity on the Croatian organised intraday electricity market (implemented by CROPEX). Maximum daily volume of 3.2 GWh was achieved on 23 December 2019, while the total monthly volume reached 32.9 GWh in December, which represents an increase of 220% in relation to previous year.

- **International activities of the Company**

The Company, in accordance with its legal obligations on European and regional levels, is cooperating with market operators and market participants outside Croatia, with a number of European institutions from the area of electrical energy transmission (European Commission / hereinafter: EC / Energy Community Secretariat, ACER and others), as well as with associations to which it belongs to (ENTSO-E, RGI, Med-TSO and other), participating in several projects with them with the goal to prepare for the implementation of obligations arising from new EU regulations or to prepare for investing in infrastructure and development-research activities. In matters and topics of common interest, the Company coordinates its activities with the competent Ministry of Environment and Energy and the Agency. This was particularly pronounced after the remaining regulations and directives from the so-called “Clean energy for all Europeans” package entered into force in early July 2019, when the Company started their implementation and preparation for implementation into domestic legislation.

The Company continued its participation in ENTSO-E activities, its working bodies (committees and groups) and the Assembly within the framework of numerous international activities and obligations, making the Company a part of current processes on a pan-European level, but also on regional levels. The activities directed towards SEE region are especially highlighted, primarily regarding markets where HOPS representatives play an important role like in ENTSO-E contacts with the EC and the Energy Community (as part of their initiatives like CESECe - Central-East South-East Connectivity for electricity and WB6 - Western Balkans 6), and in supporting plans for expansion of MRC to South East Europe, as well as in Electricity Market Initiative Working Group - EMI WG on the basis of Memorandum of Understanding signed in 2018 with a number of regional and US partners.

Also, the Company actively participates in working groups and committees of the Core region that was created on the basis of the decision of the Agency for the Cooperation of Energy Regulators (ACER) on determining the regions for the calculation of transmission capacities. Based on this decision, among other things, the CEE (Central Eastern Europe) and CWE (Central Western Europe) regions were combined into a single Core region for the calculation of transmission capacities (Decision 06/2016 from 17 November 2016).

Following different provisions of several relevant regulations, the Company is the co-founder and co-owner of the following companies: TSCNET Services (Transmission System Operators Security Cooperation, in which it has 1/14 of shares), SEE CAO (Coordinated Auction Office in South East Europe, in which it has 1/8 of shares), and Joint Allocation Office (hereinafter:

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JAO, in which it has 1/25 of shares). The Company continuously participates in their work, monitors their business activities and service provision and participates in discussions and decisions on proposed relevant documents.

In lieu with EU recommendations and provisions from the Regulation 714/2009, and especially with the Operational Security Network Rules, the Company is still a part of North and Central Europe Transmission System Operator Security Cooperation (hereinafter: TSC). The Company continued using TSC services during 2019 even after a joint office in Munich (Germany) was founded and reshaped from an initiative into a limited liability company for service provision, regulated according to German legislation (TSCNET Services GmbH). In 2019, the Company was again a signatory of the MRA agreement (Multilateral Remedial Action,) – coordinated multilateral congestion removal between 3 or more operators within a TSC. This agreement provided an opportunity for system operators to jointly work on removing congestions with certain favourable influences on supply security in each of the individual transmission system operators.

Activities were conducted for the implementation of the Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management (Text with EEA relevance) (hereinafter: CACM Directive) and the Commission Regulation (EU) 2016/1719 of 26 September 2016 establishing a guideline on forward capacity allocation (hereinafter: FCA Regulation) on the regional level of the central region for capacity calculation (Core CCR) that spreads from the Adriatic to the Baltic and from the North Sea to the Black Sea. Activities cover preparation and drafting of proposals for several documents (especially methodologies) for public consultation and/or approval by national regulatory bodies in Core CCR in accordance with the requirements from relevant provisions of the CACM and the FCA and their implementation. Especially noteworthy is the signing of the new Synchronous Area Framework Agreement (SAFA) for Regional Group Continental Europe.

At EU level, activities were intensified for the implementation of the Commission Regulation (EU) 2017/1485 of 02 August 2017 establishing a guideline on electricity transmission system operation (hereinafter: SO GL Regulation), Commission Regulation (EU) 2017/2196 of 24 November 2017 establishing a network code on electricity emergency and restoration (hereinafter: ER Regulation) and Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing (EB GL Regulation).

On 29 November 2019, on the basis of Article 18 of the EB GL Regulation and with a prior consent of the Agency, the Board of the Company adopted new Rules on electrical power system balancing. In accordance with the requirements of the EB GL Regulation, HOPS is a full-fledged member of the EU implementation projects for establishing European platforms for the exchange of balancing energy: IGCC, MARI and PICASSO.

The imbalance netting cooperation on the IGCC platform was successfully implemented and has been operationally applied since February 2019.

In June 2019 a whole slew of directives and regulations of the EC entered into force as a part of a new energy package "Clean energy Package for all Europeans" (hereinafter: CEP). Special importance, among other things, for the new design of the electricity market and a more intensive (regional) cooperation in regards to security of supply have Directive (EU) 2019/944 of the European Parliament and of the Council of 5 June 2019 on common rules for the internal market for electricity and amending Directive 2012/27/EU and Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity.

In 2019, activities on the preparation of the feasibility study of the new 400 kV interconnection with BiH and the necessary interventions in the transmission network on the Konjsko-Lika stretch, which was financed by the EBRD with grants, were completed.

Regional cooperation of the Company was continued in the managing-regulation block Slovenia-Croatia-BiH (SHB) where, in accordance with the Commission Regulation (EU) 2017/1485, the Operational Agreement of LFC Block SHB was prepared. Besides that, the following documents were drafted and approved by the competent regulatory bodies: LFC BLOCK SHB' proposal for the dimensioning rules for FRR in accordance with Article 157(1) of the Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation, LFC BLOCK SHB' proposal for the coordination actions aiming to reduce the FRCE as defined in Article 152(14) of the Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation and LFC BLOCK SHB' proposal for the measures to reduce the FRCE by requiring changes in the active power production or consumption of power generating modules and demand units in accordance with Article 152(16) of the Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation.

During 2019, cooperation with neighbouring system operators was also intensified through thematic meetings at various levels with ELES, and to a somewhat lesser extent with Hungarian MAVIR, Serbian EMS and NOS BiH and Elektroprenos-Elektroprijenos BiH from Bosnia and Herzegovina, where various common interest topics were discussed. A revised Operational Agreement was signed with NOSBiH.

Electric power in Croatian EPS is procured by production capacities in Croatian EPS, as well as by importing electricity from neighbouring countries. By comparing the available transmission capacities and the available production capacities with the average hourly loads of the transmission system, the sufficiency of production and import capacities for providing the necessary quantities of electric power to end customers is evident for 2019. In certain operating situations, viewed exclusively through Croatian EPS, sufficiency of electricity generation capacity was not achieved.

The Company, via ENTSO-E mechanisms, participates in sufficiency analyses for short-term, mid-term and long-term plans. Development plans are continuously adjusted according to the needs for ensuring the safety of supply.

The Company has concluded the Emergency Exchange Agreement (Provision of Mutual Emergency Assistance from Abroad for Securing the System Services between the Power Systems of Serbia and Croatia) with EMS Jsc. and MAVIR. The aim of the cooperation is real-time emergency energy delivery by using existing reserves in their electrical power systems (EPS), without endangering those same systems.

- **Personnel**

In 2019 the Company hired 155 new workers, while at the same period 60 of them left the Company. On 31 December 2019 the number of workers at the Company was 1,218, i.e. 95 workers more than on 31 December 2018. This increase in the number of employees ensures the necessary number of workers to meet business and legal obligations of the Company, as well as timely replacement for those who are either gone or are in the notice period (on 31 December 2019 there were 110 workers in notice period).

- **Restructuring**

2019 was marked by the Company's restructuring, i.e. the adoption of the new Rulebook on organisation and systematization of the Company (hereinafter: ROAS) that entered into force on 01 July 2019. Former ROAS was adopted in 2013 in accordance with the then-needs. In the meantime, there has been a number of significant changes in the international and domestic energy sector environment that have imposed the need for amendments to the ROAS in accordance with new conditions in the majority of the Company's organisational units, and taking into account the principles of modern and rational management.

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The restructuring that started back in 2018, when the first phase of reconstruction was implemented, continued in 2019 by implementing the second and third phase.

The second phase of reorganisation was carried out through amendments to the Rulebook on organisation and systematization, which came into force on 1 April 2019, and it referred to the establishment of a new Market Sector. According to the ROAS, the Sector is in charge of performing activities related to the electricity market, i.e. monitoring and implementation of European and national laws and regulations, and drafting and enacting regulatory provisions in the field of market activities of the Company. The Sector's activities also include: managing congestion in terms of allocating cross-border transmission capacities and providing potential for power plants redispatch, providing necessary ancillary services, providing system balancing mechanisms, buying and selling electricity to cover losses and balancing the system, activities related to billing of balance group deviations and the service of transmission network utilisation. The Sector is responsible for market development and for regulating relations with electricity market participants, transmission system operators, auction offices and electricity exchanges. It is also responsible for the development, contracting, billing, invoicing and collection for products and services within its scope of work.

The third phase of reorganisation was carried out through the adoption of the new Rulebook on organisation and systematization, which came into force on 1 July 2019, and it referred to setting up the entire organisation of the Company in a different way compared to the then valid ROAS. The changes included adding, abolishing and/or changing the names of organisational units, changing the Catalogue of standardised job posts, i.e. the names of groups of job activities and job posts. Also, the organisation has been set up in a way to enable greater internal rotation of workers, reduce duplication of structures in organisational units, and allocate human resources to appropriate job posts, taking into account the complexity of work on the one hand, and the necessary competencies of workers on the other hand. The amendment to the ROAS was accompanied by an amendment to the Work Rulebook, which needed to be harmonised with the new organisation of the Company.

Due to the mentioned amendments to the ROAS, the workers' employment contracts were harmonised in terms of labour law with the new organisation and systematization of the Company. Following the implementation of activities prescribed by law (Collective Redundancy procedure and procedure of Consultation and Co-Decision-Making with Workers' Councils and Trade Unions), decisions were made to terminate the employment contract with the offer of amended contract with workers who did not agree to the defined amendment to the employment contract in accordance with the new ROAS. All the workers who did not accept to conclude the employment contract offered along with the termination and harmonised with the new systematization, exercised the right to notice and severance pay in accordance with the provision of Art. 115 of the Collective Agreement for the Croatian Transmission System Operator Ltd. Due to the fact that only in the third phase, 129 workers did not accept the new, offered employment contract, timely employment was organized in the Company in order to ensure business continuity and transfer of knowledge.

- **Collection of receivables**

Total net receivables from customers on 31 December 2019 amount to HRK 68.6 million. Receivables mostly refer to three basic services of the Company:

- a) Transmission network utilisation service and
- b) Liability for deviation of Balance Group Manager (hereinafter: BGM),
- c) Receivable for the transmission network connection fee.

There are 48 directly connected network users on the HOPS transmission network with 140 billing metering points. Users who are connected to the high-voltage grid (110 kV) are big industrial customers (construction, manufacturing industry, railway transport, water supply, electricity producers, etc.).

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Receivables for the transmission network utilisation fee from users connected to the transmission network amount to HRK 10.4 million, out of which HRK 4.6 million are suspicious and debatable receivables.

Suspicious and debatable receivables refer to receivables from companies in bankruptcy procedures (Adria Čelik Ltd. HRK 4.6 million) that are fully corrected at the expense of the period when the bankruptcy proceedings were initiated.

Bankruptcy proceedings for Adria Čelik Ltd. In which the Company claims HRK 4.6 million are conducted before the Commercial Court in Split. The proceedings have not been completed by the date of this report.

Receivables from BGM for the liability for deviation on 31 December 2019 amount to HRK 7.2 million and refer to outstanding receivables. All receivables incurred in 2019 have been duly settled.

Receivables for the transmission network connection fee on 31 December 2019 is HRK 45.5 million and refers to connection fee for WF Krš – Pađene. The receivable was settled in full in 2020.

Regarding the collection of receivables during 2019, following activities were undertaken: continuous monitoring of collection, issuing warnings, continuous contact with the users of HOPS services via phone and electronically. The Company used the forced debt collection instrument only once, for receivables incurred in 2018.

• **Legislative framework**

In May 2019, the Croatian Parliament adopted small-change amendments to the Electricity Market Act relating to the additional regulation of its enforcement supervision (OG 52/2019, published on 22/05/2019, entered into force on 30/05/2019).

In 2019, after public consultation was conducted and the Agency approval was obtained, the Company adopted the following acts:

- Rules on the electrical power system balancing (HOPS, 11/2019),
- Special addition to harmonised rules for allocating long-term capacities for the border between Croatian and Serbian trading zones (implementation starts on 01 January 2020), Special addition to the harmonised allocation rules for the borders for which the allocation service is provided by SEE CAO,
- Rules for explicit daily allocation for borders between AT-CZ, AT-HU, HR-HU, CZ-DE, CZ-PL, PL-SK and PL-DE zones,
- Rules for explicit daily allocation of capacities for which the allocation service is provided by SEE CAO,
- Rules for explicit daily allocation of capacities for the border between Croatian and Serbian trading zones (implementation starts on 01 January 2020),
- Rules for explicit intra-day allocation of capacities between trading zones of HOPS Ltd. and ELES Ltd. (implementation starts on 19 November 2019 with the SIDC project),
- Rules for intra-day allocation of cross-border transmission capacities between HOPS and NOS BiH regulation areas (implementation starts on 01 January 2020),
- Rules for intra-day allocation of capacities for the border between HOPS and EMS trading zones (implementation starts on 01 January 2020),
- Rules for nominating for the border between Croatian and Serbian trading zones (implementation starts on 01 January 2020).

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In 2019, HOPS also actively participated and cooperated with competent authorities and other interested stakeholders on drafting, i.e. adopting the following implementing acts:

- Rules for connection to the transmission network,
- Amendments to the Transmission system network rules,
- Rules for congestion management within Croatian EPS, including interconnectors (the proposal has passed public consultation, adoption is expected in 2020).

At the end of 2019, the Croatian energy market operator (hereinafter: HROTE) adopted the Rules on electricity market organisation.

During 2019, the Rules on the harmonisation of the electrical power system (HOPS, 11/2019) were drafted and adopted. These Rules were harmonised with the guidelines on balancing (GLEB) and they create a baseline for opening of the ancillary services and balancing energy market and they determine the single deviation price of balance groups in a single billing interval.

• **Strengthening the internal supervision function**

Regarding the activities to improve the internal supervision function and the internal control system, the Ordinance on Internal Audit entered into force at the beginning of the year and it closely regulates the position and manner of work of the newly founded organisational unit for Internal Audit at the Company (definition, basic principles, organisational position, manner of work etc.).

At the beginning of the year the Supervisory Board of HOPS, in accordance with the provisions of the Audit Act (OG 127/17), formed a three-person Audit Committee that adopted its own Rules of Procedure. At the end of the year the Board adopted Amendments to the Rulebook on Internal Audit that harmonised it with the internal acts which regulate the work of the HOPS Audit Committee.

In 2019 the first Annual Internal Audit Plan was adopted and Internal Audit began its work on implementing planned activities in several business areas of HOPS organisational units. The responsibilities of Internal Audit include planning, conducting, reporting on conducted internal audits and monitoring the implementation of given recommendations in the Company's organisational units, as well as checking the compliance of internal acts with laws, decisions of regulatory bodies and other regulations and other tasks in accordance with internal acts.

With these activities HOPS continuously improves the capacity needed for efficient supervision of business processes in the Company, given the importance of internal supervision as one of the basic functions and responsibilities of the management.

• **Information system**

In 2019, a significant upgrade and improvement of security ICT structure and software monitoring tools was performed on the company level, and proactive and continuous work was performed on raising the awareness of HOPS information system users about potential risks and cyber threats.

With the new Rulebook on organisation and systematization of HOPS from 1/7/2019, organisation of jobs related to IT security at HOPS was adapted according to requirements from the ENTSO-E group for information system cyber security (European Network for Cyber Security). Additionally, in order to implement the Directive concerning measures for a high common level of security of network and information systems across the Union (Directive EU 2016/1148, hereinafter: NIS Directive), a coordinator for information security on the level of HOPS was appointed at the Office of the Board.

A proposal of the Rulebook on the security of HOPS information system was prepared during 2019. The proposal was drafted in accordance with the NIS Directive and national Act / Decree on Cyber Security of Operators of Essential Services and Digital Service Providers (OG

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64/2018) and with technical and practical recommendations of the Information Systems Security Bureau of the Republic of Croatia. The plan is to send a proposal of the Rulebook to the Board of HOPS for adoption in the first half of 2020.

During 2019, via the implementation of the Investment Plan, there was a significant upgrade of network and security infrastructure and software monitoring tool on HOPS level.

Following harmonisation with the Act / Decree on Cyber Security of Operators of Essential Services and Digital Service Providers, the Company Board adopted the Methodology of risk management and risk evaluation of the SCADA system at the session held on 18 June 2019. As a subject providing a key service of electricity transmission, HOPS is obligated to establish a system for managing risks that the security of its network and information systems is exposed to. The risk management process covers activities of establishing the scope of risk assessment (equipment and systems), risk assessment, catalogue of threats and vulnerabilities, risk evaluation and a risk processing plan, communication and consultation on risks, and risk acceptance and possible ways of risk processing.

In the upgrades of the process IT system during 2019, the following projects can be singled out:

- commissioning of the system IGCC - European platform for imbalance netting cooperation as an association of European transmission system operators, with the implementation of a new communication converter that allows sending and receiving of necessary data from Network Manager SCADA/EMS/AGC system in NDC towards the IGCC centre monitored by German transmission system operator TransnetBW,
- first Disaster/Recovery testing of a reserve dispatch centre (RDC), with a simulation of complete NDC unavailability where the RDC has successfully taken over all management functions in full for EPS in the duration of 4 hours,
- pilot project of the AGC automatic control system with the goal of checking the concept and the AGC system of the manufacturer Končar KET in order to discuss replacing the existing AGC system with a new, more contemporary solution,
- first factory testing of the Sincro.Grid system, IT part - FAT testing of the VVC system at the supplier's location, preparatory testing for SAT testing, pre-factory testing of the systems VVS, FAT, SAT testing of DTR system and SAT testing of IT infrastructure,
- preparatory activities for an upgrade of the SCADA/EMS/AGC/OTS system – making a preliminary design of the upgrade, analysis and defining requirement priorities, analysis of the functionality of higher system versions, preparing technical bases, performing GAP analysis,
- participation in the ENTSO-E CGM program and performing activities on the local OPDE platform for a real-time operational data exchange for the implementation of the congestion forecasting process (DACF, IDCF, D2CF), coordinated shutdown planning and capacity calculation,
- upgrade of the NetVision DAM system - preparation of reports from the feasibility check process, observability analysis, calculation of estimation quality measure and power flows, DARP (Day ahead reactive planning) calculation, upgrade of CGMES export, upgrading grid models and energy calculations due to installation of VSR,
- IT support to SIDC/XBID (Single Intraday Coupling / Cross Border Intraday) project - implicit intraday allocation at the HR-SI and HR-HU borders connected with the central DBAG platform, intraday allocation in accordance with the Rules for explicit intraday allocation of capacities between HOPS Ltd. and ELES Ltd. trading zones at the HR-SI border,
- Finalised project of the E-Billing system – implementation of the system for automation of the business process of electricity billing with entry, storage and historical monitoring

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of master data in the register of all billing metering points under the competence of HOPS, import of master data on partners, measuring points and meters from the system of owners of this data, extended set of reports,

- Implementation of the new data warehouse DWH with data download in a 15-minute resolution from the following systems: Advance (power meters), E-Billing (master data), SCADA (integrals from Network Manager UDW base), Accounting (harmonised measurements on cross-border transmission lines), Plan (system work plan and exchange plan), Aiolos (planned production of wind farms from the Aiolos core) and WPPT (planned production of wind farms from WPPT core),
- Migration of servers and applications to a new IT structure, i.e. new virtualisation platform VMware,
- activities on international projects (CEF and H2020): Sincro.Grid, CROSSBOW, XBID, MARI, OPC/STA, CORE FB MC, FARCROSS, FLEXGRID.

Further automation of process IT system to support the business process of managing ancillary services and balancing energy.

In the upgrades of the business IT system during 2019, the following projects can be singled out:

- upgrade of the ERP business application system – applications: FIN (related to public procurement, controlling, e-Invoice and reports for HEP), KIF (sending e-Invoice), Plaće (eng. paychecks) (new version of SEPA file), Kadrovska (eng.personnel) and Putni nalozi (eng. travel orders) (amendments to the Rulebook on organisation and systematization on 1 April and 1 July 2019) and Autopark (additional data and reports),
- GAP FIT analysis of the *Kadrovska* and *Plaće* apps due to possible replacement of the existing applications *Kadrovska* and *Plaće* with new ones,
- Self-service portal (e-Mailbox) – enabled overview and download of payrolls for HOPS employees,
- e-Administration (e-Authentication and e-Session modules) – enabled preparation, finishing and approval of materials for Board sessions,
- e-Authentication of incoming invoices – created and presented test application for electronic verification / liquidation of incoming invoices,
- CENTRIX2 system – implemented application for a new Registry book and performed preparatory activities for digitization of the archive,
- Implemented new re-designed and technologically upgraded HOPS internet pages, performed reorganisation and upgrade of content, implemented new program modules for procurement and employment.

• **Research and development**

The Company actively participated in research and development in 2019. As in previous years, the dynamics of conducting studies in the field of electricity transmission important for improving the Company's business in both domestic and international market was maintained. In the development field special emphasis can be placed on conducting a short-circuit study in the Croatian EPS transmission network for the nominal years 2020, 2025 and 2030, and the study of making a high-frequency model of a power transformer based on the measurements of frequency-dependent admittance matrix. In the first half of 2019, activities on the preparation of the Feasibility study for strengthening the Croatian North-South main transmission axis that enables the development of new interconnection cross-border power lines, financed by the EBRD, have been completed. Upon completion of the feasibility study, further activities were initiated on the implementation of this project which is crucial for further integration of RES on

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the South of Croatia. Activities were continued on the implementation of the system for dynamic determination of transmission power of overhead lines by upgrading the system for conductor temperature monitoring on the TL 110 kV Crikvenica – Vrataruša that was performed in the first half of 2019.

The Company continued with its active participation on the WINDLIPS (WIND energy integration in Low Inertia Power System) project in 2019. The project deals with investigating RES for providing initial inertia response and ancillary services of the system and the development of regulatory and technical frameworks that enable such activity. It will identify the status of the Croatian EPS, the share and the types of individual power plants and the influence of existing RES on the inertia constant. It will analyse the Croatian EPS development strategies and planned new production capacities from RES, as well as technical requirements of network rules for connecting to RES in SEE countries. Second part of research will be based on applying WF to support the system frequency stability by using their inertia response and active power in the short period after the occurrence of disturbances. The project will analyse in detail the primary regulation of EPS frequency and dynamic characteristics of the system response during disturbances in existing conditions and in conditions of increased integration of WF into EPS.

By signing the consortium agreement with project partners HOPS joined the CROSSBOW ("CROSS Border management of variable renewable energies and storage units enabling a transnational Wholesale market") project at the end of 2017 which was co-financed from the EU Research and Innovation programme for 2014-2020 period, Horizon 2020, in the total amount of EUR 17.2 million. The project started on 01 November 2017, with a predictable duration of 48 months. The project consortium consists of 24 partners from 13 countries while project partners from Croatia, besides HOPS, are the Faculty of Electrical Engineering and Computing, University of Zagreb and Končar KET. The CROSSBOW project is one of the most relevant EU innovation projects in the smart grid sector that brings together transmission system operators from eight countries of SEE, academic institutions and the industry. During the project, the participation of HOPS is planned with 122 person/month, with an approved co-financing of € 550,000 non-refundable. Aim of the CROSSBOW project is to demonstrate the possibilities of cross - border management of volatile RES energy and energy reservoirs in the area of the countries of SEE, enabling additional development of the transnational wholesale electricity market. The CROSSBOW project consists of six sub-projects and nineteen work packages, out of which HOPS is the leader of the sub-project 6. "Integration and demonstration", and work package 13. "Large scale demonstration activities of the integrated CROSSBOW eco system". System operators are the core of the project and will, among other things, enable and increase joint usage of resources between two system operators. Thus, the project will propose new energy storage options and virtual power plants, with the aim of increasing flexibility and expanding the base of ancillary service providers, proving that the project results will help address the transnational challenges that the region is facing. During 2019 consortium partners have made certain changes in the main document for project management, the Project management Plan, in the sense that the majority of partners introduces a smaller change of resources, which does not require the mandatory implementation of amendments to the grant agreement, and in order to delay efforts to meet the project objectives in a timely and foreseeable manner. Therefore, some partners have grouped or distributed efforts within work packages to ensure the proper distribution of the work achieved and to encourage the best application of their knowledge in specific tasks that require special attention from technology partners. HOPS has identified a need for transferring some of the resources to support demonstration activities. Specifically, € 250,000 was transferred from the "Personnel costs" item to "Other costs" in order to use servers and IT infrastructure necessary for the second phase of the project. This change did not affect staff distribution done by HOPS who were already employed on the project, on the contrary, it facilitated the seamless integration of project results that HOPS confirmed in its current work activities.

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In accordance with the evaluations by the European Commission, three more project proposals in which HOPS participated were approved from the EU Research and Innovation programme for the 2014-2020 period, Horizon 2020, in 2019 – the FARCROSS, FLEXGRID and ATTEST projects.

The FARCROSS (“Facilitating Regional CROSS-border Electricity Transmission through Innovation”) project started on 01 October 2019, with a predictable duration of 48 months. The Consortium is made of 31 partners from 16 countries. Aim of the FARCROSS project is to explore the potential for increasing the amount and better utilisation of cross-border capacities with the aim of improving the market for the intra-day and day-ahead time frame. The research within the project is divided into two main directions and HOPS is actively participating in the demonstration of the results of both studies. First research is focused on the potentials of a joint allocation of power reserve and energy capacities. Namely, the market direction of research aims to increase the utilisation of available cross-border capacities by applying an algorithm that includes joint optimization of the allocation of capacities for energy amounts and power reserves. On the other hand, researching possibilities of using DLR devices for determining the amount of capacities in real time is focused on installing devices for dynamic line rating and on analysing the results with the aim of increasing and checking the calculated amounts of cross - border capacities. As part of this project, HOPS will install two DLR systems for the purpose of demonstration and validation of innovative methods and research algorithms, and provide expert knowledge and services focused on testing the proposed solutions and innovative definitions of market products such as Methodology for calculating cross - border capacities which include power reserve and energy and Overview of the influence of existing and future EU market regulation on research results.

The FARCROSS is co-financed by the EU in the amount of € 9.9 million for a period of 4 years and the grant value for HOPS is € 134,400 with an evaluated share of HOPS of 31 person/month during four years.

The FLEXGRID (A novel smart grid architecture that facilitates high RES penetration through innovative markets towards efficient interaction between advanced electricity grid management and intelligent stakeholders) project started on 01 October 2019, with a predictable duration of 36 months. The Consortium is made of 12 partners from 8 countries. Besides HOPS, the Faculty of Electrical Engineering and Computing, University of Zagreb from Croatia is also participating as a support to HOPS, as part of the demonstration part of the project. Aim of the FLEXGRID project is to research and model architecture of advanced grids with an electrical power system drive with a high share of RES. Through an innovative market framework as one of the products of the project, a more efficient interaction between advanced algorithms of optimal power flows and sophisticated strategies of energy sector participants will be explored. As part of this project, HOPS will provide data on regulation needs, status of the network and other in the form of work package for the purpose of demonstration and validation of innovative research methods and algorithms. It is also planned that, in the context of the CROSSBOW project and in interaction with NORDPOOL, HOPS will participate in the development of innovative power storage energy services. By participating in this project HOPS is allowed access to new insights into contemporary technologies, and a valuable reference is also gained that will serve for future participations in similar EU projects. Also, by participating in the FLEXGRID project HOPS will have a visible and active role in managing the challenges of integrating renewable energy sources and achieving goals of the Energy Development Strategy. The project is divided into 8 work packages and HOPS is participating in 7 of them, with a total planned load of 29 person/month during three years of project duration. The FLEXGRID project is co-financed by the EU in the amount of € 3.8 million for a 3-year period, and the value of the grant for HOPS is € 154,500.

In October 2019, the European Commission positively evaluated the project application ATTEST (*Advanced Tools Towards cost-efficient dEcarbonization of future reliable power SysTems*) in which HOPS is participating along with 8 more partners from 6 countries. Besides HOPS, there are also Končar KET, HEP ODS and Nikola Tesla Innovation Centre from Croatia.

The main idea of the project is research and demonstration of coordination of transmission and distribution system operator in the segments of network development, asset management, ancillary service procurement and EPS management. The total value of the project is € 3.9 million, of which the share of HOPS is € 160,187.50 with an estimated share of HOPS of 36.5 person/month during 3 years. The project will start on 01 March 2020, with an estimated duration of 36 months.

- **Fleet renewal**

In order to increase the safety of its workers and other road users, to renew the existing obsolete vehicle fleet and to create conditions for the normal performance of electricity transmission activities and EPS functioning, procurement of 94 personal vehicles, 6 field vehicles and 7 vans was contracted in September, October and December of 2019. The majority of them were delivered in late 2019 and the rest in early 2020.

Further analysis of transport need was performed at the end of the year and the plan is to start procurement of cargo vehicles with superstructure in the first half of 2020.

Newly procured vehicles significantly increase the safety of workers in traffic, directly result in a more efficient work flow, reduce fleet maintenance costs and fuel costs and reduce negative impact on the environment. For the same reasons, further renewal of the fleet is planned, especially the cargo fleet.

- **Procurement**

The procurement plan for 2019 was adopted on 29 October 2018 in the amount of HRK 869.9 million, in which there were 652 procurement procedures (of all types).

The procurement plan is a dynamic category and the Company, in accordance with the Public Procurement Act, enters and removes procedures according to the requirement of business needs. Thus, at the end of 2019 there were 1466 procurement procedures in the procurement plan in the amount of HRK 2,225 million (out of which most of them were implemented and some were cancelled and annulled). Out of those, HRK 521.9 million of contracts were concluded.

Procurement implementation, besides planning of business needs is also affected by appeal proceedings. There were 19 of them in 2019, out of which 17 were resolved and 9 out of them were resolved in favour of the Company.

Some larger procurements were initiated in 2019 that are of capital importance for the Company (submarine cables, gas-insulated switchgear facilities, underground cables etc.).

- **Activities related to General Data Protection Regulation implementation**

Regulation (EU) 2016/679 of the European Parliament and of the Council on the protection of natural persons with regard to the processing of personal data and on the free movement of such data (General Data Protection Regulation) hereinafter: GDPR Regulation) is regularly applied at HOPS.

Pursuant to the GDPR Regulation, on 18 June 2019, the Decision on the appointment of the Data Protection Officer at HOPS Ltd. No. 10.6.19 was adopted as the legal basis for the activities of the Data Protection Officer (hereinafter: the Officer) for the period from 18 June 2019 onwards.

The Officer regularly gives opinions on received queries, and performs other obligations: telephone inquiries, supplementing / changing a certain way of doing business at the initiative of the Officer (identifying the need for change by the Officer), monitoring the case (query, complaint) till the query was completed, supplementation / amendment of an already completed case, fulfilment of obligations at the request of the Croatian Personal Data Protection Agency (AZOP), preventive action, education of colleagues, education of the Officer

(professional training, obtaining professional literature), monitoring of current events in the field of personal data protection regulations.

It is important to emphasize the acquisition of the Certificate of Completion of Education in 2019 issued by the Personal Data Protection Agency as a national supervisory authority, which included about 30 hours of on-line training of the Officer on the AZOP portal and a written test that the Officer successfully passed as a part of the implementation of an international T4DATA project.

It is also important to mention that the work on GDPR-related cases is quite demanding and detailed (it is different from work on other functions that are performed in addition to the workplace tasks) because it simultaneously encompasses:

- I. study of national and European regulations on personal data protection (acts, opinions and decisions of national and European supervisory authorities, decisions of national and European courts),
- II. but also, many other areas of law to which a specific case is related - e.g. labour law, the area related to the obligation to provide information to third parties, the area of occupational safety, audit, EU projects, public procurement, etc.

There is no IT application in HOPS for tracking GDPR proceedings. Such application would facilitate business operations and monitoring in the area of GDPR; e.g. in case of (larger) queries of respondents, it would enable an answer that would be within the deadlines prescribed by the GDPR (now such reports are prepared by reviewing e-mails), it would enable automatic keeping records of personal data processing (now kept in excel tables) and would enable the preparation of various reports (regular, at the request of the Board) and the like.

- **Nonfinancial report**

In accordance with the Accounting Act (OG78/15, 134/15, 120/16, 116/18, 42/20) and the Ordinance on deadlines for the submission of financial statements and accounting documentation in special circumstances (OG 43/2020), HOPS will publish the Nonfinancial report for 2019 as a separate report on its web page no later than 8 months from the balance sheet date i.e. until 31 August 2020. When drafting the report, HOPS will use the Global Reporting Initiative guidelines (GRI standard) and indicators in the specified standard. The report will be published on the following link:

<https://www.hops.hr/wps/portal/hr/web/dokumenti/Publikacije/godisnjiizvjestaji>.

1. BUSINESS ACTIVITY AND ORGANISATIONAL STRUCTURE OF THE COMPANY

• Business activity of the Company

Independent transmission system operator in the RoC is organised as a limited liability company with the seat in Zagreb, Kupska 4. It is entered in the court register of the Commercial Court in Zagreb under the company registration number (MBS) 080517105, PIN:13148821633 and with share capital of HRK 4,948,627,300.00, performing a regulated profession of electrical power transmission.

The Company is registered at the State Bureau of Statistics under the registration number (MB) 1924427 for performing electrical power transmission activities.

The activity of electrical power transmission includes basic tasks such as management of the Croatian EPS, power transmission, maintenance, development and construction of the transmission network for reliable supply of customers with minimal costs and care for environmental protection and support for the development and functioning of the Croatian electricity market, taking care of its interconnection with the neighbouring electricity markets of the European Union and the Energy Community.

The Company's business activity is organised successfully and has been performed on the Croatian territory for more than 60 years and in several organisational forms.

• Organisation of the Company

The bodies of the Company are the Assembly, the Supervisory Board and the Management Board.

The Assembly:

Frane Barbarić – President since 1 January 2018

The Supervisory Board:

1. Kažimir Vrankić – Chairman
2. Alina Kosek - Vice-Chairwoman until 3 April 2020
3. Ante Pavić - member until 3 April 2020
4. Marko Dvorski – member since 4 April 2020
5. Krešimir Ugarković – member since 4 April 2020
6. Marijan Kalea – member
7. Silvana Boban - member, workers' representative until 1 October 2019

The Audit Committee (since 14 January 2019):

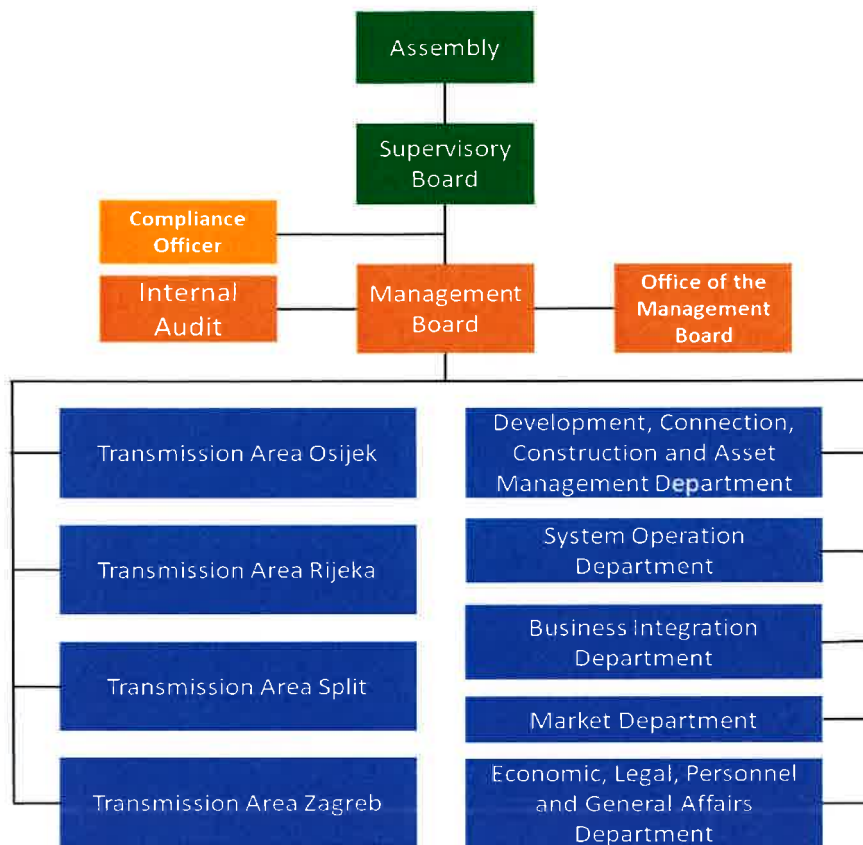
1. Drago Jakovčević, Ph.D., President (independent, external member)
2. Mihovil Anđelinović, Ph.D. (independent, external member)
3. Alina Kosek, mag. oec., (member, Supervisory Board)

The Management Board:

1. Mario Gudelj - President of the Board - until 24 April 2019
2. Ivica Modrić - member of the Board - until 24 April 2019
3. Tomislav Plavšić – President of the Board - since 25 April 2019
4. Zlatko Visković - member of the Board - since 16 April 2018
5. Dejan Liović – member of the Board - since 25 April 2019

The Company is organised functionally by sectors in the headquarters and regionally by transmission areas in order to efficiently perform its business activity on the territory of the entire RoC.

Picture 1. The Company's organisational scheme - situation as of 31 December 2019



2. REPORT ON SECURITY OF SUPPLY OF THE CROATIAN ELECTRICAL POWER SYSTEM IN 2019

2.1. CROATIAN ELECTRICAL POWER SYSTEM

Croatian EPS consists of production facilities and plants, transmission and distribution network and electricity consumers in the territory of the Republic of Croatia. For the purpose of safe and quality supply of customers with electricity and exchange of electricity, Croatian EPS is connected to the EPSs of neighbouring countries and other systems of ENTSO-E members, which together form the synchronous network of continental Europe. Customers in the Republic of Croatia get their electricity from power plants on Croatian territory and by purchasing electricity from abroad. The size of Croatian EPS makes it one of the smaller systems in Europe.

Croatian EPS is connected by 400 kV, 220 kV and 110 kV voltage levels with neighbouring countries' system. Croatian EPS is connected by transmission lines of 400 kV voltage level (seven TLs in total, out of which three are double-circuit transmission lines and four are single-circuit transmission lines) with the systems of:

- Bosnia and Herzegovina (TL 400 kV Ernestinovo - Ugljevik and TL 400 kV Konjsko - Mostar),
- Serbia (TL 400 kV Ernestinovo – Sremska Mitrovica 2),
- Hungary (TL 2x400 kV Žerjavinec – Hévíz, TL 2x400 kV Ernestinovo – Pécs),
- Slovenia (TL 2x400 kV Tumbri – Krško, TL 400 kV Melina – Divača).

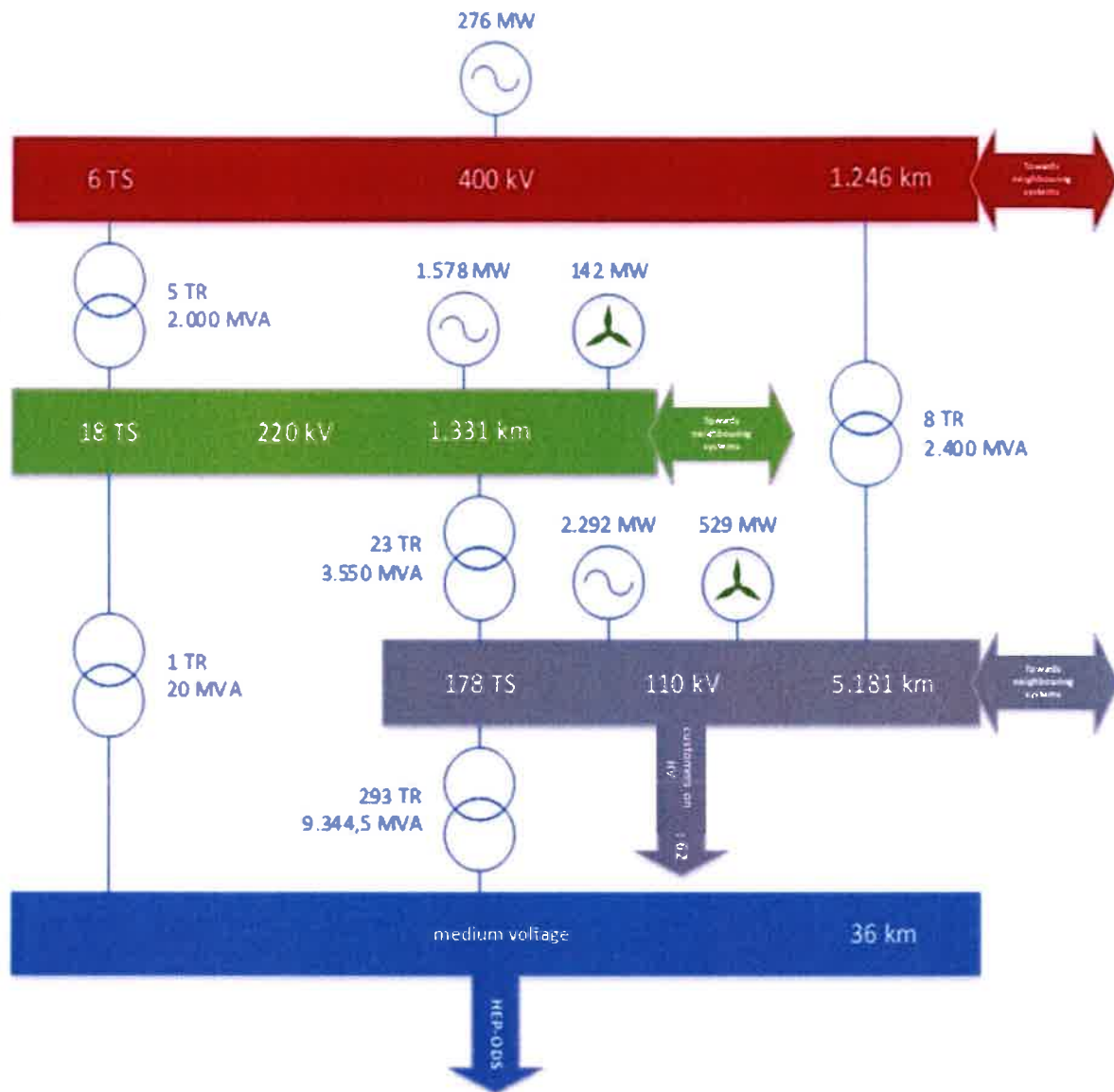
Interconnection of the Croatian system with the neighbouring ENTSO-E members was also achieved via 8 transmission lines 220 kV. Also, Croatian system is interconnected with its environment on a 110 kV level (18 TLs in total in permanent or periodical operation). Good connection with neighbouring systems enables significant exports, imports and transits of electricity via the transmission network and places the Republic of Croatia in an important EPS link between Central and SE Europe.

Today (situation at the end of 2019), the Croatian transmission system on the territory of RoC is networked in a total of 6 substations of 400 kV level, and in total of 18 substations/facilities of 220 kV level. There are 178 110 kV switchyards and SS 110/x kV on the 110 kV voltage level.

400 kV transmission network is not looped in the territory of RoC, but spreads from its Eastern part (Ernestinovo), through the North-Western part (Zagreb) to the Western (Rijeka) and Eastern (Split) part.

Out of production facilities, only RHPP (reversible hydropower plant) Velebit is connected.

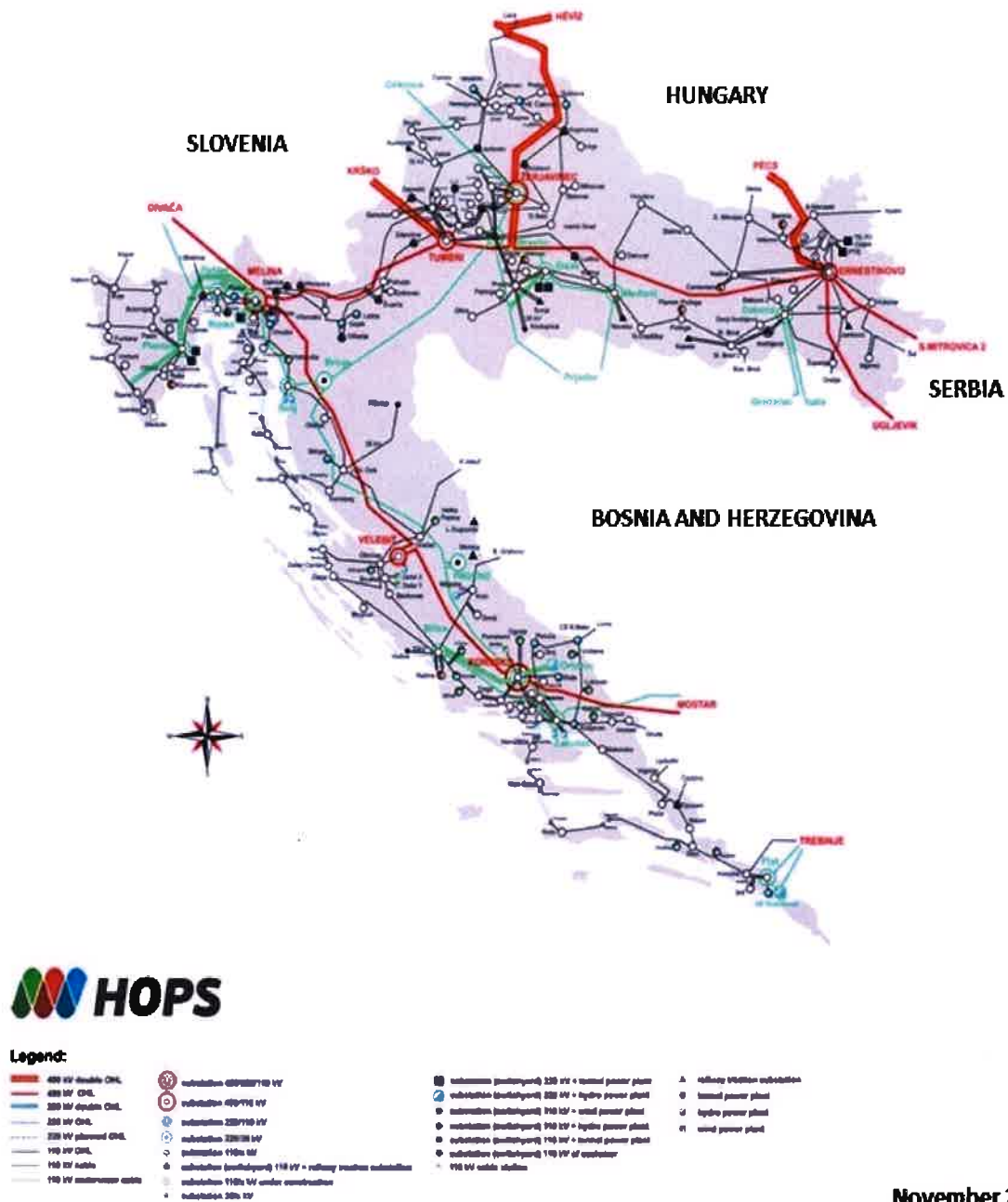
Picture 2. Transmission system technical indicators per voltage levels - status at the end of 2019



In the Croatian transmission system (status at the end of 2019), HOPS owns a total of 7,794 km of 400 kV, 220 kV and 110 kV high-voltage network (Picture 3). Transmission lines that were built as 110 kV lines, but are currently operating on medium voltage are also counted in.

The transmission network is constructed sufficiently enough to allow for significant exchanges (import primarily) with neighbouring EPSs. Significant amounts of electricity, with satisfactory safety, are imported from Slovenia (NPP Krško), Bosnia and Herzegovina and Hungary.

Picture 3. 400-220-110 kV transmission network RoC, status at the end 2019

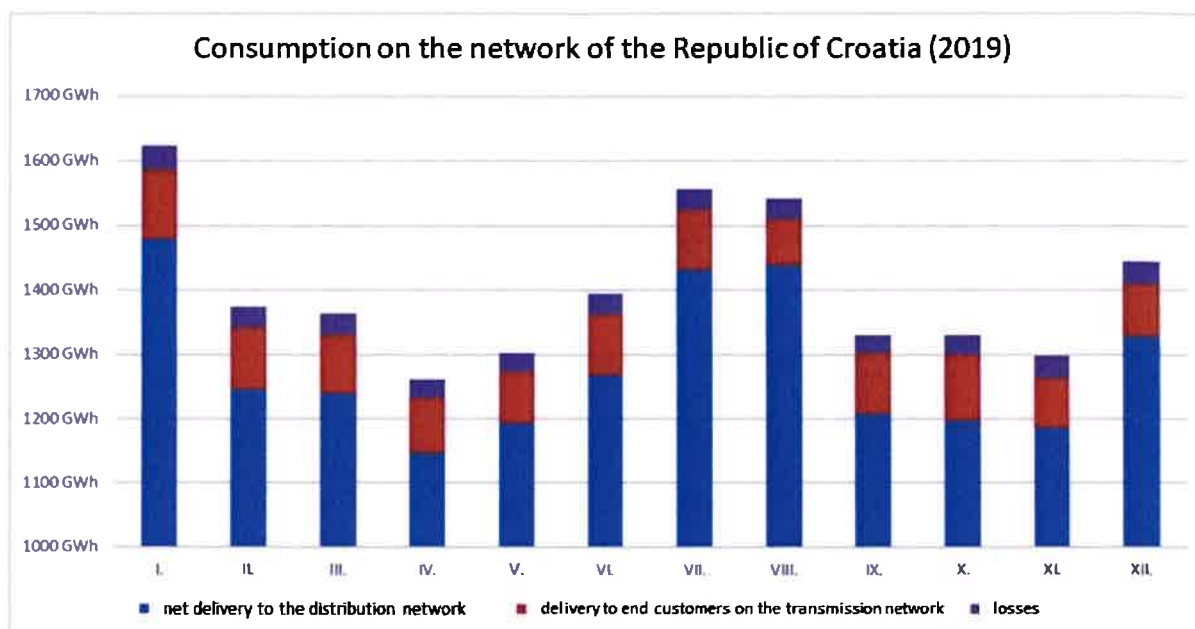


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2.2. SECURITY OF SUPPLY IN 2019

The required quantities of electricity for end customers in the Croatian EPS are provided, via suppliers and transmission system operators, through production units geographically located in the Croatian EPS and via secured cross-border transmission capacities at the HOPS interface with other transmission system operators. Picture 4 shows electricity consumption on the transmission network of the RoC per months in 2019.

1 Picture 4. Electricity consumption on the transmission network of the RoC per months in 2019



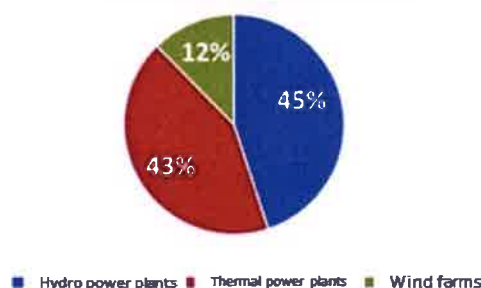
Maximum hourly load of the Croatian EPS was recorded in July, while the maximum total monthly electricity consumption on the transmission network level was recorded in January and is 1,624 GWh. Minimal total monthly consumption on the transmission network level was recorded in April and was 1262 GWh, i.e. in the same month as minimal hourly load.

Available production units connected to the transmission network, expressed according to the approved connection power and according to the primary energy source are shown in picture 5.

Picture 5. Connection capacity of power plants in the transmission network of the RoC in 2019

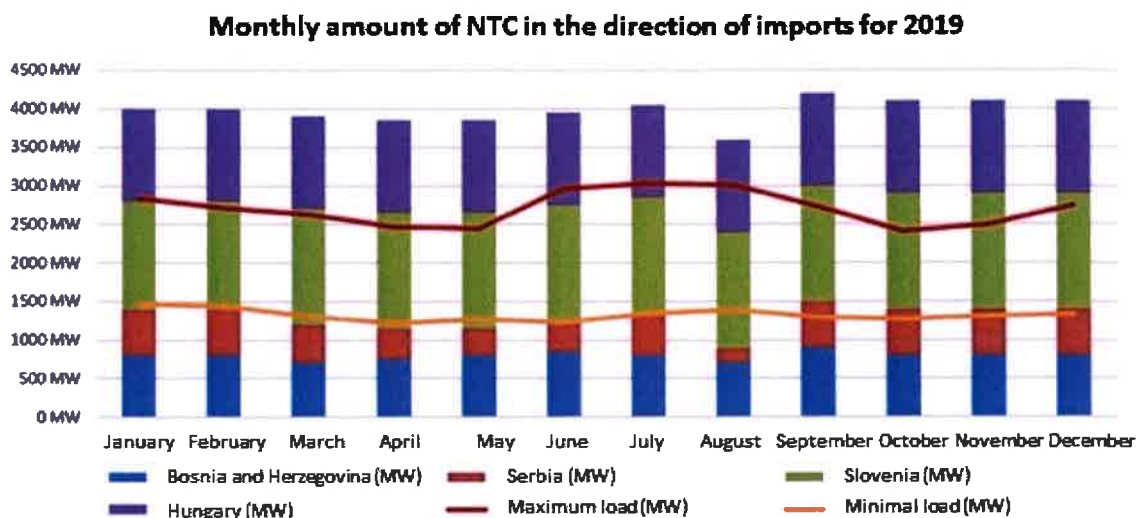
Types of power plants	Connection capacity (MW)	[%]
Hydro power plants	2110,6	45%
Thermal power plants	2000,8	43%
Wind farms	579,0	12%
Σ	4690,4	100%

Division of power plants by primary energy source; 2019



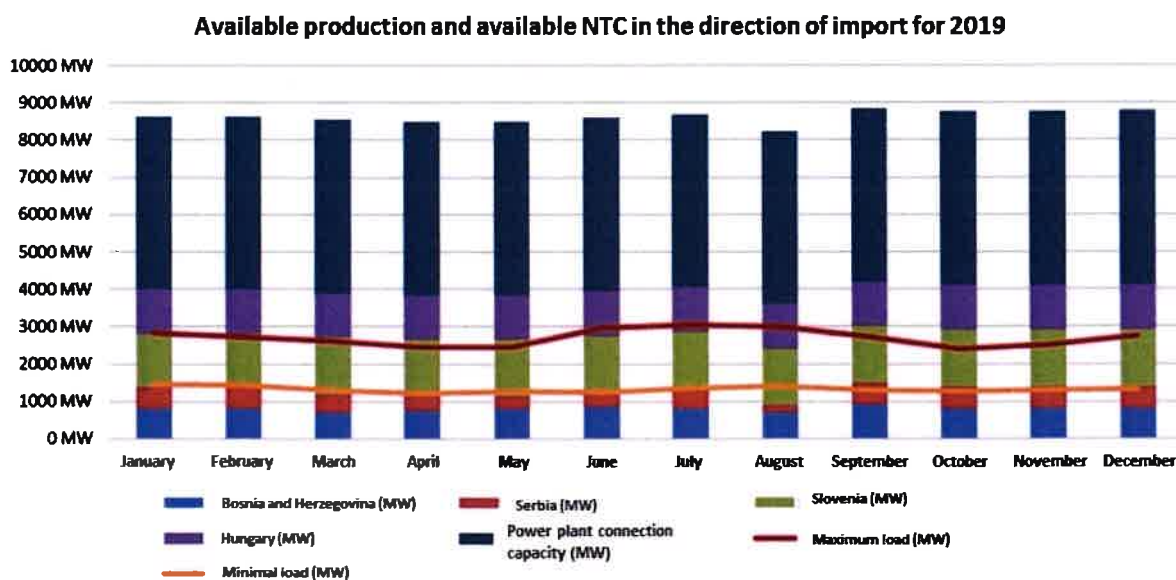
Possibility of importing electricity in the Croatian EPS is limited by cross-border transmission capacities. Picture 6 shows monthly cross-border transmission capacities in the direction of electricity import and minimal and maximum system load per months.

Picture 6. Cross-border transmission capacities – import NTC capacities (comparative table)



Picture 7 shows cross-border transmission capacities in the direction of electricity import, available connection capacity of power plants on the transmission network and minimal and maximum system load per months.

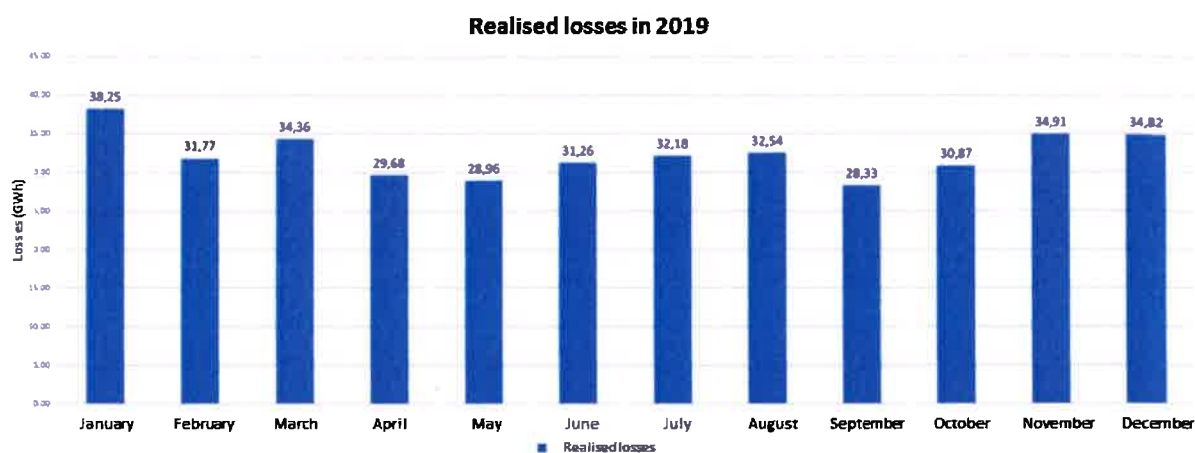
Picture 7. Available production and available cross-border capacities in regards to minimal and maximum per months in 2019



2.3 TRANSMISSION NETWORK LOSSES IN 2019

Realised total losses in the transmission network are calculated as the difference between transmitted and delivered electricity into the transmission network on the basis of collected and validated measured data from billing metering points. Total losses include transmission network losses and losses on connecting cross-border lines. Realised losses in 2019 amount to 387.9 GWh and their monthly distribution on 2019 is shown in picture 8.

Picture 8. Realised losses per months in 2019



From a transmission network operator's point of view, it is common to observe transmission network losses depending on the total transmitted energy in the transmission network. The total transmitted energy in the transmission network is calculated as the sum of electricity produced in the transmission network and electricity that entered the transmission network. In 2019 a total of 22,058 GWh of electricity was transmitted through the transmission network, which is 7.44 % less than in 2018. Share of losses in the transmission network for 2019 is 1.76%. The total amount of losses in the transmission network in 2019 is 27.34 % lower than in 2018. Reasons for reduced losses are the lowest recorded transmitted energy i.e. weaker hydrology and production from hydroelectric power plants and lower electricity import in comparison with the previous year.

HOPS procures losses with the goal of minimising total cost, on transparent, impartial and market principles. Consequently, securing losses during 2019 was done on two levels, i.e. by long-term procurement (long-term contracts) and short-term procurement (on day-ahead market and intraday market).

A long-term contract involves the procurement of electricity to cover losses in the transmission network through public auctioning with pre-known quantities of electricity. Auctioning and selection are done in a transparent and independent way towards all bidders, where the selection criterion is the lowest offering price that fulfils all the auctioning requirements.

Short-term procurement involves the purchase of electricity to cover losses on day-ahead and intraday markets of the Croatian Power Exchange (CROPEX). The amount of electricity being purchased / sold everyday at CROPEX is based on the difference of daily prognosis of necessary amounts of electricity to cover losses and long-term procured energy.

3. BUSINESS PERFORMANCE AND FINANCIAL POSITION OF THE COMPANY IN 2019

The Company's business performance in 2019 has been presented in the Statement of Comprehensive Income for the period from 1 January 2019 to 31 December 2019, and the financial position has been shown in the Statement of Financial Position as on 31 December 2019. The statements containing the most important items are listed below.

3.1 BUSINESS PERFORMANCE

The Company completed the business year 2019 with a year-end pre-tax profit in the amount of HRK 165.4 million. The total generated profit consists of the difference between revenues and expenditures from the allocation of cross-border transmission capacities in the amount of HRK 71.2 million and the difference of other revenues and expenditures in the amount of HRK 94.2 million. The generated pre-tax profit is lower by HRK 50.7 million or 23.5% compared to the previous year, while the profit after tax is lower by HRK 44.0 million or 25.0% compared to the previous year.

The decrease in profit compared to the previous year was caused by a decrease in total revenues by HRK 37.4 million or 2.1% and an increase in total expenditure by HRK 13.3 million or 0.9%.

The decrease in revenues was mostly due to the decrease in revenues from the provision of electricity transmission services which was HRK 36.9 million or 2.6% lower than in the previous year, the decrease in revenues from the sale of balancing electricity which decreased by HRK 16.2 million or 35.1% compared to the previous year and the decrease in revenues from the inter-compensation ITC mechanism of transmission system operators (hereinafter: ITC mechanism) which was by HRK 29.1 million or 78.3% lower than in the previous year. The decrease in revenues was mostly compensated by an increase in revenues from the billing of balancing electricity, which was by HRK 58.6 million or 66.7% higher than in the previous year. The mentioned increase in revenues from the billing of balancing electricity happened due to the application of the deviations billing for EKO BG since the beginning of 2019.

The increase in expenditure was mostly due to the increase in staff costs which were by HRK 16.3 million or 7.3% higher than in the previous year, depreciation costs which were higher than in the previous year by HRK 8.7 million or 2.6%, ITC mechanisms costs which were higher than in the previous year by HRK 7.5 million or 668.9%. Costs of ancillary services procurement also increased by HRK 31.0 million or 10.5%. The increase in expenditure was mostly compensated by a decrease in the costs of balancing electricity procurement, which were by HRK 36.9 million or 26.1% lower than in the previous year.

The total revenues generated in 2019 are mostly revenues from the provided electricity transmission service (79.4%), revenues from the billing of balancing electricity (8.5%), revenues from the allocation of cross-border transmission capacities (6.0%), revenues from the sale of balancing electricity (1.7%), revenues from telecommunications services (1.1%) and revenues from the ITC mechanism (0.5%). The remaining operating revenues include: revenues from the sale of electricity to cover losses and compensation program, revenues from assets received free of charge and in accordance with the provisions of IFRS 15, revenues generated from the use of own products and services, collected written-off receivables, revenues from non-standard services, cancellation of provisions and other operating and financial revenues.

Total expenditure effected in 2019 mostly consists of depreciation costs (22.0%), costs of ancillary services procurement (20.8%), staff costs (15.2%), costs of losses on the transmission network (11.2%), costs of balancing electricity procurement (6.7%), costs of energy facilities maintenance (6.4%), costs of allocation of cross-border transmission capacities (2.0%) and costs of balancing electricity billing (1.45%). The remaining operating expenditure includes ITC mechanism costs, costs of telecommunications services, costs of

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value adjustment of assets and provisions, general operating costs, costs of fees and concessions and other operating and financial expenditure.

Financial expenditure mostly relates to interest costs and exchange rate differences.

Income tax for 2019 amounts to HRK 33.2 million and is lower than in the previous year by 16.6%.

Table 1 shows the Statement of Comprehensive Income (Profit and Loss Statement) containing the most important items and a comparison with the previous year.

Table 1. Excerpt from the Statement of Comprehensive Income (in HRK million)

Description	2019	2018	Difference	19/18
1	2	3	4 (2-3)	5 (2/3)
Revenues from sales and other business incomes	1,725.7	1,755.5	(29,8)	-1.7%
Business expenditures	1,536.9	1,524.2	12.7	0.8%
PROFIT FROM BUSINESS ACTIVITIES	188.7	231.3	(42,6)	-18.4%
Financial income	1.5	9.1	(7,6)	-83.4%
Financial expenditures	24.8	24.3	0,5	2.2%
Net financial expenditures	(23,3)	(15,2)	(8,1)	53.3%
TOTAL INCOME	1,727.2	1,764.6	(37,4)	-2.1%
TOTAL EXPENDITURES	(1,561,8)	(1,548,5)	(13,3)	0.9%
Pre-tax profit	165.4	216.1	(50,7)	-23.5%
Income tax	(33,2)	(39,9)	6,6	-16.6%
PROFIT FOR THE PERIOD	132.2	176.2	(-44,0)	-25.0%

Based on the items, as shown in Table 2, the Company generated earnings before net financial expenditure and current tax (EBIT) in the amount of HRK 1,887 million, which is 18.4% less than in 2018. EBITDA (EBIT excluding depreciation) was HRK 532.6 million, which is 6.0% less than in 2018.

Table 2. Financial indicators (in HRK million)

Description	2019	2018
EBIT (Earnings before interest and taxes)	188.7	231.3
EBITDA (EBIT without the effect of amortization)	532.6	566.5
EBITDA margin	11%	13%
EBIT margin	31%	32%
Net profit margin	8%	10%

3.2 FINANCIAL POSITION

The financial position of the Company has been presented in the Statement of Financial Position as at 31 December 2019.

Table 3 shows an excerpt from the Statement of Financial Position (Balance Sheet) containing the most important items and a comparison with the previous year.

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Table 3. Excerpt from the Statement of Financial Position of the Company as at (HRK million)

Description	31 December 2019	% share	31 December 2018	% share	2019/2018
1	2	3	4	5	6 (2/4)
Long-term assets	6,362.7	91.6%	6,134.5	91.6%	3.7%
Short-term assets	586.6	8.4%	563.8	8.4%	4.0%
Total assets	6,949.3	100.0%	6,698.3	100.0%	3.7%
Capital and reserves	5,190.6	74.7%	5,101.9	76.2%	1.7%
Long-term obligations	989.9	14.2%	938.0	14.0%	5.5%
Short-term obligations	768.8	11.1%	658.4	9.8%	16.8%
Total obligations and capital	6,949.3	100.0%	6,698.3	100.0%	3.7%

The value of total assets as at 31 December 2019 amounted to HRK 6,949.3 million. Compared to 31 December 2018 it is higher by HRK 251.0 million or 3.7%.

As a result of investments in 2019, fixed assets increased by HRK 228.2 million and now amount to HRK 6,362.7 million. The share of fixed assets in total assets compared to 2018 remained unchanged at 91.6%.

Current assets amount to HRK 586.6 million. They increased compared to the previous year by HRK 22.8 million, mainly due to a decrease in receivables from associated companies which, compared to the previous year, are lower by HRK 135.1 million. The share of current assets in total assets remained unchanged at 8.4%.

Capital and reserves, which cover 74.7% of the Company's total assets, increased by HRK 88.7 million due to lower profit generated in 2018, so the share is 1.5% lower than in 2018.

The share capital of the Company as at 31 December 2019 amounts to HRK 4,948.6 million. In March 2019, the share capital was increased by HRK 19.4 million by way of contribution in kind by HEP Jsc.

Total liabilities amount to HRK 1,758.7 million. They increased by HRK 162.3 million compared to 2018, with their share in liabilities increasing from 23.8% to 25.3%. Long-term liabilities account for 56.3%, and short-term ones 43.7% of total liabilities as at 31 December 2019.

Based on the indicators derived from the balance sheet data, it can be concluded that the Company has leverage indicators in line with the activity it performs. The Company finances current investments from its own funds, regularly repays long-term liabilities and regularly finances day-to-day business operations from generated revenues.

The leverage ratio (total liabilities / net income and depreciation) of the Company for 2019 amounts to 3.69 years and is higher than the previous year by 0.57 years.

4. INVESTMENTS

In 2019, investments amounted to a total of HRK 558.93 million. The largest share includes investments in the replacement and reconstruction of the existing transmission infrastructure, revitalization of transmission network facilities and plants, and construction of new facilities. The level of investments made in 2019 compared to the previous year is higher by HRK 136.4 million or 32.3%.

Table 4 Investments in 2019 in HRK

Type of investment	31 December 2019	% share	31 December 2018	% share	2019/2018
1	2	3	4	5	6 (2/4)
Preparation of investments	18,145,109	3.2%	12,285,790	2.9%	47.7%
Replacement and reconstruction	262,971,534	47.0%	161,581,930	38.2%	62.7%
Revitalization	105,512,011	18.9%	71,918,463	17.0%	46.7%
Repairs and renewal	0		0		
New facilities	104,374,606	18.7%	97,127,202	23.0%	7.5%
Other investments	31,244,770	5.6%	60,755,445	14.4%	-48.6%
Electrical power conditions for connection	36,685,877	6.6%	18,831,604	4.5%	94.8%
Total	558,933,907	100.0%	422,500,434	100.0%	32.3%

4.1 MOST IMPORTANT INVESTMENTS

The most important investments that were fully or partially realised in 2019 are listed.

SINCRO.GRID PCI PROJECT (calculated in 2019: HRK 32,037,722)

As part of the SINCRO.GRID project, the investment can be divided into 4 main groups: 1) installation of compensation facilities at SS 400/220/110 kV Melina (VSR 200 MVar), 2) SS 220/110 kV Mraclin (VSR 100 MVar) and 3) SS 400/220/110 kV Konjsko (SVC 250 MVar) and 4) upgrade of process technical systems (TK, IT, SCADA, EMS, DTR) necessary for project realisation. In 2019 the installation of the shunt reactor in SS Mraclin was finished (approx. HRK 22,700,000 in 2019), equipment production documentation was delivered, as well as detailed design for the shunt reactor at SS Melina (approx. HRK 3,650,000 in 2019), and factory testing was finished for support / upgrade of process technical systems (VVC function, DTR system) necessary for project realisation (approx. HRK 5,700,000 in 2019). Completion of work is planned for the end of 2021.

TL 2x110 kV Slavonski Brod - Slavonski Brod 2 (calculated in 2019: HRK 4,799,385)

In the middle of 2019, the reconstruction works were completed on the TL (transmission line) 110 kV Slavonski Brod – Slavonski Brod 2 that was reconstructed as a double-system transmission line. After the final inspection of the facility was completed, a valid occupancy permit was obtained in October 2019 and the facility has been operating regularly since then.

SS 110/10(20) Split 3 (Visoka) (calculated in 2019: HRK 10,107,000)

The 110 kV facility in GIS construction was delivered and stored and detailed design was done in the 4th quarter of 2019. The Agreement No. U3000-281/19 was signed to build a 110 kV facility at SS Split 3.

SS 110/35 kV Pračno - refurbishment of 110 kV facilities (calculated in 2019: HRK 8,764,750)

Second phase of refurbishment of the SS 110/35 kV Pračno was finished in December 2019. As part of the second phase primary and secondary equipment was replaced at 110 kV bays of SS2, SS2 TL Željezara, TL CP (cogeneration plant) Sisak, TL Rafinerija, electric traction substation Sunja 1, TL Siscia and TL Mraclin, and the 110 kV busbar system was replaced, final inspection and trial operation of the new facility was performed and occupancy permit was obtained.

SS 110/35 kV Ivanić Grad (calculated in 2019: HRK 6,682,846)

The works on refurbishment and expansion of the 110 kV facility at SS 110/35 kV Ivanić Grad started in November 2017, and the replacement of complete primary and secondary equipment

and the busbar system was planned as a part of it, as well as an expansion of additional two bays with a connection bay to connect TL 110 kV Mraclin – Ludina to SS Ivanić Grad. By the end of 2019, works were completed on replacing the 110 kV busbar system and primary and secondary equipment in 110 kV bays: CB (connection bay) FB (feeder bay) Ludina, FB Mraclin 1 and 2, FB Bjelovar and TR1. Completion work is underway in TR2 bay and the rest of the 110 kV busbar system, renovation of the roof and the fence of the 110 kV facility and roads at the 110 kV facility. In 2020, trial work of the new facility and final inspection are expected in order for the occupancy permit to be obtained.

SS 110/20 kV Botinec-upgrade of 110 kV facility (calculated in 2019: HRK 6,203,207)

Construction works on FB 110 kV Rakitje 1 and 2 at the SS 110/20 kV Botinec started in March 2019 in order to construct a non-homogeneous 110 kV line Rakitje-Botinec 1 and 2. During 2019 complete primary and secondary equipment was installed and secondary testing was performed. Final testing and commissioning, as well as trial operation of the new facility were finished at the beginning of 2020. Final inspection is expected by mid-2020.

HPP-SS SENJ - primary and secondary equipment replacement (equipment and works) (calculated in 2019: HRK 8,310,629)

SS (HPP) Senj is a facility built in the late 60ties and early 70ties of the last century. It is configured to consist of three voltage levels (220, 110 and 35 kV facilities). Numerous modernisations and modifications on primary and secondary equipment were done in previous years. In accordance with the Principles of segmentation with HEP-Production, activities were carried out to separate competencies over management and control over certain parts of the facility. System for protection, management and control of the 110 kV facility has been completely revitalised and separated from the rest of the subjects in the facility. In 2019 all the activities on the separation of the 220 kV facility management and control systems were completed, as part of which a part of the secondary equipment was procured and installed in order for the management, control and protection system to be completely separated from HEP-Production. Part of the primary equipment of the 220 kV system was replaced in the previous period. In order to have a complete reconstruction of the primary equipment of the 220 kV system, measuring transformers on feeder bays, disconnectors and disconnector motor drives were replaced.

SS 110/35/10 kV Dolinka and Šijana- three power transformers 110/35/10 kV 40 MVA (procurement and installation) (calculated in 2019: HRK 11,237,956)

Procuring power transformers for the needs of HOPS (according to the framework agreement concluded at the end of 2017) included factory production and testing, transport to installation site, installation, connection and commissioning of new power transformers.

For the purposes of replacement of existing transformers, in 2019 two three-phase oil-immersed regulation power transformers 110/35(20)/10 kV, 40 MVA and related adaptation projects for connecting a transformer onto the existing primary and secondary circuits were ordered. Transformers in question were installed to bays TR2 110/35/10 kV at SS 110/35/10 kV Dolinka and TR2 110/35/10 kV into SS 110/35/10 kV Šijana.

Third power transformer, delivered in 2018, was installed to bay TR5 110/35 kV at SS 110/35 kV Rijeka in 2019, replacing the existing one.

SS 110/10(20)kV SUŠAK - cable TL 110kV Turnić-Sušak (Orehovica - Sušak section) (calculated in 2019: HRK 7,724,953)

As the transformation of 110/20 kV was already realised in Sušak area, based on the 110 kV cable network development plan it was necessary to connect SS Sušak with the remaining two points in the distribution network, Turnić and Zamet, and to create a single interconnected point of the three stations with direct transformation at the main supply point - SS Pehlin

With the construction of 110 kV of cable connection SS Sušak – SS Turnić, it is planned to connect these two facilities in terms of energy and information. As part of this project, a possibility of connecting into a single 110 kV network is envisaged. The concept of cable route is such that the shortest route, by using maximally constructed roads and regulated passable roads, connects SS Sušak and SS Turnić.

By the end of 2019 property and legal affairs for this project were resolved, construction permit was obtained, detailed design was made and all works reached its final phase. Finishing works, testing and commissioning are planned for 2020.

HPP-SS RIJEKA - primary and secondary equipment replacement (equipment and works) (calculated in 2019: HRK 4,636,341)

Substation Rijeka, before the HEP-Production; HEP-ODS; HOPS segmentation, was an integral part of the power plant HPP Rijeka. It was constructed as a single facility with two voltage levels, 110 kV and 35 (20) kV, each of which belonged to a different business entity. After the segmentation, ownership and authority for the 110 kV facility went to HOPS, 35 kV and 20 kV facilities to HEP-ODS and block transformer 110 kV bay to HEP-Production.

This project encompasses procurement of equipment, works and ancillary services on replacing primary and secondary equipment at the 110kV facility under the authority of HOPS. Detailed designs were done by the end of 2019, the majority of equipment was procured and a part of construction and preparatory works were done. Completion of works is planned by the end of 2020.

Procurement of protection and management devices TA Rijeka (calculated in 2019: HRK 4,247,489)

Some substations are still equipped with outdated management, supervision and protection system, so new generation devices need to be procured in order to replace the old ones when performing reconstruction and replacement works. In 2019 protection and management devices were procured and they will be installed in 2020 and 2021.

Measuring transformers 110kV TA Rijeka (calculated in 2019: HRK 7,887,478)

In 2019, on the basis of the central framework agreement, 110kV and 220kV measuring transformers were procured in order to replace worn-out measuring transformers in facilities.

This plan item covers only equipment procurement, while installations of newly procured transformers at the TA Rijeka facilities for the replacement of 110 kV, 220 kV and 400 kV measuring transformers will be performed within the four-year framework agreement for works.

In 2019 measuring transformers were replaced at the following facilities:

- SS 110/20 kV Pazin –FB (feeder bay) 110 kV Poreč, FB 110 kV Plomin, MB (metering bay) MB (main system busbar) + AB (ancillary system busbar);
- SS 110/20 kV Poreč –FB 110 kV Funtana, FB 110 kV Pazin, FB 110 kV Katoro, MB (metering bay) MB (main system busbar) + AB (ancillary system busbar);
- SS 110/35 kV Lički Osik - FB 110 kV Otočac, FB 110 kV Sklope, FB 110 kV Karlobag, MB (metering bay) MB (main system busbar) + AB (ancillary system busbar);
- SS 400/220/110 kV Melina – FB 220 kV Rijeka 1, FB 220 kV Rijeka 2, FB 220 kV Pehlin 1, FB 220 kV Pehlin 2, CB (connection bay) 220 kV.

TA (transmission area) Rijeka - replacing 110kV switch in HV facilities (calculated in 2019: HRK 7,887,180)

Under a three-year framework agreement to replace HV circuit breakers in TA Rijeka facilities concluded in 2018, the following HV circuit breakers were replaced during 2018:

- SS 220/110 kV Senj – FB 220 kV Melina, FB 220 kV Brinje, CB 110 kV;
- SS 220/35 kV Brinje – FB 220 kV Senj, CB 220 kV, TB (transformer bay) 220 kV;
- SS 110/35 kV Vinodol – GEN1 110 kV, GEN2 110 kV, GEN3 110 kV;
- Switchyard 110 kV Sklope – FB 110 kV Lički Osik.

This framework contract covers the design, works and all necessary materials for the replacement and installation of HV circuit breakers and related services. The delivery of the HV circuit breakers themselves was the subject of a separate framework agreement for the supply of HV switchgear equipment.

SS 220/110kV PLOMIN-replacement of secondary equipment 220kV and 110kV facilities (calculated in 2019: HRK 5,792,050)

In 2019, as a part of this project, the existing electrostatic system of busbar protection and protection from circuit breaker failure RSX 2A made by Končar was replaced with a new system of numerical distributed protection of busbars REB 500 version 8.20 made by ABB. Circuit breakers for bays TB AT1 220 kV, TB AT2 220 kV, MB1 220 kV, CB 220 kV, FB 220 kV Melina, FB 220 kV Pehlin were also procured.

SS 220/110/35 kV PEHLIN- two power transformers with voltage regulation 220/110 kV 150 MVA (procurement and installation) (calculated in 2019: HRK 12,418,257)

Procuring power transformers for the needs of HOPS (according to the framework agreement concluded at the end of 2017) included factory production and testing, transport to installation site, installation, connection and commissioning of new power transformers.

For the purposes of replacement of the existing autotransformer, the 220/115/10,5 kV power three-phase oil-immersed regulation autotransformer and related adaptation projects for connecting a transformer onto existing primary and secondary circuits were ordered in 2019. This autotransformer was installed in bay ATR2 220/110 kV at SS 220/110/35 kV Pehlin.

SS Našice - refurbishment (calculated in 2019: HRK 5,435,280)

In order to reconstruct the whole primary and secondary part of the facility, in 2019 the DC and AC power supply systems were reconstructed.

Reconstruction of the secondary facility was contracted and started in 2019, which involves replacing the obsolete remote station DS803 type, as well as the facility relay protection system. By the end of 2019, all key equipment was delivered and project documentation preparation was started for the replacement of entire secondary part of the facility. The remaining work will be done in accordance with the dynamic of replacing the secondary part of the facility whose reconstruction will start in 2020.

SS OSIJEK 2 - REFURBISHMENT (calculated in 2019: HRK 14,259,004)

SS Osijek refurbishment project was initiated in 2014 and, after drafting the project documentation and obtaining necessary permits in early 2018, the public procurement procedure was conducted for contracting works for refurbishment of the entire substation. Refurbishment of SS Osijek 2 had to be carried out due to the obsolete equipment (primary and secondary) which became unreliable, and the facility itself is of special importance since it is located next to the TPP-CP Osijek.

Refurbishment began in mid-2018 and continued as planned during 2019. For that purpose, two new power transformers were procured, as well as the entire new primary and secondary

equipment that is installed in the substation in accordance with plans, and all necessary works and services were contracted. Work will continue in 2020.

SS Ernestinovo, DC voltage power supply system replacement (calculated in 2019: HRK 4,969,360)

The DC power supply system was installed at SS Ernestinovo in 2003, and due to significant number of faults of rectifiers and failures generated from the central management unit, as well as planned replacement of the management and monitoring system it was necessary to reconstruct the entire DC power supply system. System reconstruction implies reconstruction of equipment in 16 power supply systems at relay units, medium voltage (MV) and low voltage (LV) facilities and the command building where the majority of electrical equipment is replaced in converter cabinets (command unit, rectifiers, network circuit breakers, ancillary switches...). The entire replacement was made during 2019 and the system was put into operation.

SS Ernestinovo, management and monitoring system replacement (calculated in 2019: HRK 4,138,800)

Due to an obsolete management and monitoring system at SS Ernestinovo 400/110 kV, which is of key importance for the TA Osijek EPS, and due to inability to upgrade an existing LSA system, the entire management and monitoring system replacement project was initiated that will be conducted, as per plans, in several phases.

First phase of reconstruction includes replacement of all the management terminals at the 400 kV side of the facility, upgrade of the existing relay protection devices to IEC61850 communication protocol, replacement of backup relay protection devices at the FB 400 kV and installation of the new SCADA system. A public procurement procedure for necessary equipment and services was conducted in 2019 for the aforementioned first phase. Necessary equipment was delivered, and in 2020 the system will become operational. Other replacement phases will be implemented in the following years.

SS Meterize - refurbishment (calculated in 2019: HRK 9,171,372)

The substation was constructed in 1956, in the so-called low construction. The facility has concrete portals, and load-bearing parts of the 110 kV equipment are in decay. Primary and secondary equipment is old and represents a significant maintenance issue. This significantly impairs the reliability of the facility. Transmission power of feeder bays is inadequate and represents a "bottleneck" in relation to the transmission power of the connected transmission lines, reducing the capability of power placement from HPP Zakućac in high hydrology conditions. This results in water overflow and direct financial losses due to unproduced electricity. Preliminary and main design for the reconstruction have been prepared. Property and legal affairs have been dealt with completely. Under framework agreements, the HV switchgear equipment (circuit breakers and disconnectors) and measuring transformers for reconstruction have been delivered. Secondary equipment delivery has been contracted. Obtaining permits and preparation of biddings for reconstruction works is under way.

Procurement of measuring transformers TA (transmission area) Split (calculated in 2019: HRK 7,047,062)

In 2019, on the basis of the central framework agreement, 110kV and 400kV measuring transformers were procured in order to replace worn-out measuring transformers in facilities.

This plan item covers only equipment procurement.

As part of two-year framework agreement for works on replacing the 110 kV and 400 kV measuring transformers, the installation of newly procured transformers will be performed at the TA Split facilities:

- SS 110/35 kV Knin – measuring transformers for 110 kV bays

- SS 400/ 220/110 kV Knin – measuring transformers for 400 kV and 110 kV bays
- SS 110/35 kV Sinj – measuring transformers for 110 kV bays

In addition to the above, the following measuring transformers were procured:

- SS 110/35 kV Ston – measuring transformers for 110 kV bays.

They will be installed as part of the facility reconstruction in the 2020-2021 period.

Replacement of inadequate switchgear equipment - TA (transmission area) Split (calculated in 2019: HRK 5,483,359)

Replacement of switchgear equipment is planned for facilities where the equipment is obsolete, and its maintenance presents serious costs with a high level of unavailability which affects the stability of the electrical power system. It is primarily a replacement of existing HV equipment for which construction permit need not be obtained, and it refers to a large number of objects (Novalja, Nin, Blato, Nerežišća, Makarska, Komolac, Konjsko, RHPP Velebit, Sinj and Knin). HV equipment (circuit breakers and disconnectors) that is being installed is mostly a subject of framework agreements. Tender for equipment installation works has been published.

TL 220 kV Zakučac – Konjsko - refurbishment (calculated in 2019: HRK 6,493,924)

This transmission line was constructed 50 years ago, and it is necessary to replace the suspension and jointing equipment and conductors. In addition, the sags in some places do not correspond to the safety heights. Therefore, replacement is necessary with conductors with smaller sags and less weight in order to avoid replacing the pillars.

The conductor and the suspension and jointing equipment for transmission line replacement has been delivered. Contracting of refurbishment works for the transmission line is in progress.

Refurbishment of the 220 kV facility at the switchyard HPP Orlovac (calculated in 2019 HRK 13,137,806)

Reconstruction project of the switchyard 220 kV Orlovac began in 2014 by designing the project task and the main design. Construction permit for the reconstruction of the switchyard 220 kV Orlovac was obtained in May 2017. Procurement documentation was drafted and public procurement procedure was conducted. The reconstruction agreement for the switchyard 220 kV Orlovac was contracted in late August 2018. Reconstruction is under way and it involves the following works: replacement of primary and secondary equipment for the 220 kV facility, connecting it to the remote control system, construction of HOPS control building, new AC/DC network, electrical installations, fire alarm and video surveillance, new driveway, a fence, outdoor lighting, construction works.

SS 220/110/10 kV MRACLIN - procurement and installation of power transformer -T2, 220/110/10 kV, 150 MVA (calculated in 2019: HRK 6,510,745)

Old power transformer T2 220/110/10 kV that was operational more than 50 years at the SS Mraclin was replaced with a new one with the same transmission characteristics and nominal power. Besides the connection to the 220 and 110 kV facilities, the transformer was connected, via a tertiary, to a 10 kV facility out of which home transformers with own consumption of SSs are powered.

The project covered dismantling, ecological disposal of special waste and transport of the existing power transformer 220/110/10 kV to the location of the customer's warehouse and procurement (factory production), transport to installation site, installation, connection and commissioning of the new power transformer - T2, 220/110/10 kV. The project began in 2018 and was finalised in 2019.

SS 110/30(20)/10 kV RESNIK - procurement and installation of power transformer -T2 110/30(20)/10 kV, 63 MVA (calculated in 2019: HRK 5,430,333)

Regular diagnostic tests have shown extremely poor reliability and a relatively short remaining lifespan of the existing power transformer - T2 110/30/10 kV, 60 MVA at the SS 110/30/10 kV Resnik. Due to the importance of safe and reliable consumption power supply, the existing power transformer is replaced with a new one 110/30(20)/10 kV, 63 MVA.

The project covered dismantling, ecological disposal of special waste and transport of the existing power transformer - T2 to the location of the customer's warehouse and procurement (factory production), transport to installation site, installation, connection and commissioning of the new power transformer - T2 110/30(20)/10 kV, 63 MVA. 85% of the project was realised by 31 December 2019. The completion of factory production and testing, FAT/collection, transport to the installation site, installation, testing at the installation site and commissioning of the new power transformer is planned for 2020. Removal of the old transformer and ecological disposal of special waste.

Connection of a new production block to CCPP Zagreb (calculated in 2019: HRK 57,137,064)

By concluding the Connection Agreement No. 51/18, contracted on 08/05/2018 between the Croatian transmission system operator Ltd. and Croatian Electric Power Industry Jsc. (Hrvatska elektroprivreda d.d), contracting parties regulated the conditions of connection of L Block to CCPP-Zagreb, of connection capacity 150 MW, to a 110 kV transmission network. The new L Block will be connected to the transmission network via new GIS facility 110 kV with double busbars, that will be installed at the site of the existing facility.

The obligation of HOPS is to construct the Connection and to perform works on Creating technical conditions in the network, in accordance with the terms, deadlines and conditions of the Agreement, which includes procurement of all necessary equipment and performing all necessary works. The new GIS facility 110 kV at the CCPP Zagreb needs to be ready for the L Block connection no later than 30/09/2020. The Connection Agreement contains a time plan with detailed activities that HOPS is obligated to implement in relation to Connection and the creation of technical conditions in the network (STUM).

The implementation of the Connection Agreement is in line with the planned dynamics and planned key activities are being implemented within defined deadlines. 80% of the project was realised by 31 December 2019. Plan is to complete the replacement and expansion of the 110 kV facility at CCPP-Zagreb by 30/09/2020, as well as its commissioning and obtaining the construction permit.

SS 220/110/10 kV MRACLIN - procurement and installation of power transformer -T3, 220/110/10 kV, 150 MVA (calculated in 2019: HRK 5,992,362)

Existing 220 kV facility at SS 220/110/10 kV Mraclin was constructed in two phases on the basis of main designs from 1960 and 1966. In order to increase reliability, a replacement of power transformer T3 (220/110/10 kV, 150 MVA) with a new one with same transmission characteristics and nominal power is planned at SS Mraclin. The dynamics of procurement of goods and installation works are harmonised with the reconstruction of the 220 kV facility for which the main project was designed.

The project covered dismantling, ecological disposal of special waste and transport of the existing power transformer 220/110/10 kV to the location of the customer's warehouse and procurement (factory production), transport to installation site, installation, connection and commissioning of the new power transformer - T3, 220/110/10 kV.

52% of the project was realised by 31 December 2019. The completion of factory production and testing, FAT/collection, transport to the installation site, installation, testing at the

installation site and commissioning of the new power transformer is planned for 2020. Removal of the old transformer and ecological disposal of special waste.

SS Mraclin - reconstruction of the 220 kV facility (calculated in 2019: HRK 10,526,593)

The reconstruction project for the 220 kV facility at SS 220/110/10 kV Mraclin consists of drafting the documentation for main and detailed design and obtaining the construction permit, procurement of primary and secondary equipment, establishment of temporary power supply 220 kV, constructing a brand new busbar system 220 kV with tubular busbars, arrangement of cable ducts, construction of relay houses, replacement of primary equipment (except circuit breakers that are retained) and secondary equipment (installation in relay houses) and ancillary power supplies, construction of a new connection bay (separation of connection bay GS1-GS2 and GS-PS) and connection of the newly constructed shunt reactor bay.

The main design with accompanying studies was prepared and revised in 2019, and obtaining construction permit is under way. Primary equipment was procured 220 kV – switchgear equipment (circuit breakers, pantograph disconnectors, rotary disconnectors, earthing devices) and measuring transformers (voltage, current, combined) for the 220 kV facility reconstruction. The complete secondary equipment for the 220 kV facility has been procured. Preparation of the detailed design for reconstruction of the 220 kV facility is under way. It is anticipated that the 220 kV facility reconstruction will last until 2024.

Upgrading and expanding the management system (calculated in 2019: HRK 11,319,916)

Pursuant to the Framework Agreement No. S3000-29/18 for the subject matter “Upgrading the support system for the management of EPS in accordance with ENTSO-E regulations and other legislation”, upgrades were performed for system Network Manager 4.2.7, support with integration of the NM system into monitoring tools, delivery of workstations and WS500 licences, support services for RDC backup centre testing, bases for parallel operation, data migration and system architecture for NM system upgrade project, study and support in preparation and testing of sequential control, study of conceptual technical solution for primary regulation monitoring, project of neural networks application in safety analysis, refinement of EMS reports and adjustment of systems in control centres in order to modernise connected systems.

Pursuant to the Framework Agreement No. S3000-2/18 for the subject matter “Upgrade and customisation of NetVision DAM system”, upgrade of the NetVision client was performed with a possibility of snapshot file export to CGMES format for various network volumes, upgrade of the feasibility check software system for manual node type entry, improvement of the feasibility check calculation (DACF) by using the calculation function of reactive power schedule (DARP – Day ahead reactive planning), upgrade of online budget by observability analysis of condition assessment.

Process LAN in power facilities (calculated in 2019: HRK 4,621,272)

Pursuant to Framework Agreement No. S3000-40/19 for the subject matter “Communication connection of secondary EPS control systems”, projects, equipment and monitoring system for 12 HOPS locations were delivered to: CPPP, SS Resnik, SS Rakitje, SS Zadar centre, SS Dugopolje, SS Sinj, TPP Rijeka, SS Krasica, SS Sušak, SS Osijek3, SS Osijek4, SS Slavonski Brod. In 2020, the installation and commissioning of the system is planned at the above-mentioned locations.

Procurement and installation of network and security equipment and related software (calculated in 2019: HRK 7,088,316)

Pursuant to the Framework Agreement No. S3000-37/18 for the subject matter “Upgrading the network infrastructure for management of EPS and other processes in accordance with NIS and ENTSO-E regulations and other legislation”, upgrade of HOPS ICT infrastructure was

continued in 3 key segments: security, system platforms for data centres and network equipment. Several systems have been implemented that have made HOPS infrastructure more secure: technologies for monitoring and responding to events, for web service protection, one-time passwords, for secure connection from business to process network, and for safety of power facilities have been introduced and / or improved. Significant investments have been made in expanding system platforms via the implementation of business segment data centres and virtualisation of RDC Žerjavinec. Platforms' volume has been expanded, primarily of server and data storage platforms. The network infrastructure development followed 3 directions: renewal of obsolete equipment that no longer has production support, introduction of functionalities that provide connection related to technological development and provision of reliable infrastructure via newly introduced services and platforms. Replacement of obsolete equipment was conducted in accordance with priorities and level of criticality. Thus, in the past period, most of the process network was renewed, followed by the renewal of equipment in the business network. In accordance with the requirements set by the rules of the profession (based on development of cyber threats and defence technologies), regulatory requirements (Regulation on Cyber Security of Operators of Essential Services and Digital Service Providers), as well as requirements defined by ENTSO-E, continuous improvement of security systems and processes are under way.

Redundant connections to facilities for the needs of the remote-control system, (calculated in 2019: HRK 4,351,315)

Pursuant to the Framework Agreement No. S3000-25/19 for the subject matter "Upgrade and maintenance of switching equipment of the manufacturer Unify" and Framework Agreement No. S3000-26/19 for the subject matter "Upgrade and maintenance of switching equipment of the manufacturer Mitel", upgrades to the switching systems for telephone switchboards at HOPS and refurbishment of dispatcher telephony at NDCs and MCs.

Document management system (calculated in 2019: HRK 4,433,500)

After the procurement 3000-V-24/18 was conducted, the agreement U3000-10/19 was concluded and the CENTRIX2 document and case management system was implemented through business processes at HOPS, in accordance with technical specification of the tender documentation. The application for a new Registry book was implemented and preparatory activities for digitization of the archive were performed.

Transmission network loss detection system (calculated in 2019: HRK 6,485,952)

Because the existing data processing collected through calculation metering systems is not sufficient in terms of speed and scope to determine the difference between planned and realised losses in the transmission network, based on the Framework Agreement No. S3000-1/19 for the subject matter "System for determining electricity losses in the transmission network in extended real time based on the meter pulse outputs of billing metering points" a new UGM system was implemented. Meter pulse outputs of billing metering points are used in a way that they are collected using bay terminals, i.e. DAS, and transported to SCADA system at MCs and NDCs. By processing the collected pulse meters of billing metering points, it is possible to determine realised losses in the transmission network for each elapsed minute interval and to compare them with planned losses, determining the site and cause of their occurrence. The results of the calculations would be used to purchase electricity to cover losses in intra-day market when they exceed planned ones, i.e. to sell more planned energy than needed to cover losses in HOPS network. In the first phase, during 2019, the project included the collection and processing of data from billing metering points of transmission networks TA Osijek and TA Rijeka, because facilities from these transmission areas needed the smallest interventions to enable the collection of pulses from meters of billing metering points.

Cargo and personal vehicles (calculated in 2019: HRK 9,124,689)

In September, October and December 2019, procurement of 63 personal vehicles, 31 delivery vehicles, 6 field vehicles and 7 vans with delivery times of 90 and 120 days was contracted. All the vehicles were delivered at the end of 2019, except for 31 delivery vehicles that were delivered in early 2020. All vehicles are registered, insured and in use.

4.2 ELECTRICITY CONNECTION CONDITIONS

WF Krš - Pađene connection (calculated in 2019: HRK 36,384,428)

In 2019, works were completed on the construction of part of the facility WFKrš Pađene that is under the authority of HOPS Ltd. which includes 110 kV facility within the SS 33/220 kV and TL 220 kV Konjsko – Brinje feeder into SS Pađene. WF Krš Pađene became operational on 15/07/2019 by concluding the Agreement on network usage No. 82/19 between C.E.M.P and HOPS. After all verification tests were performed, Occupancy permit for the connection was obtained on 19/12/2019, CLASS:UP/I-361-05/19-01/000070, REG.NO.:531-06-3-3-19-0023. After the occupancy permit was obtained, handover of the connection was done on 23/12/2019, in accordance with the Agreement on connection No. 48/15. In accordance with the Record on handover, the total value of the connection (SS 33/220 kV Pađene and two single-system TL 220 kV from SS Pađene to the feeder in TL 220 kV Brinje – Konjsko), i.e. total value of the connection fee is HRK 36,442,827.81.

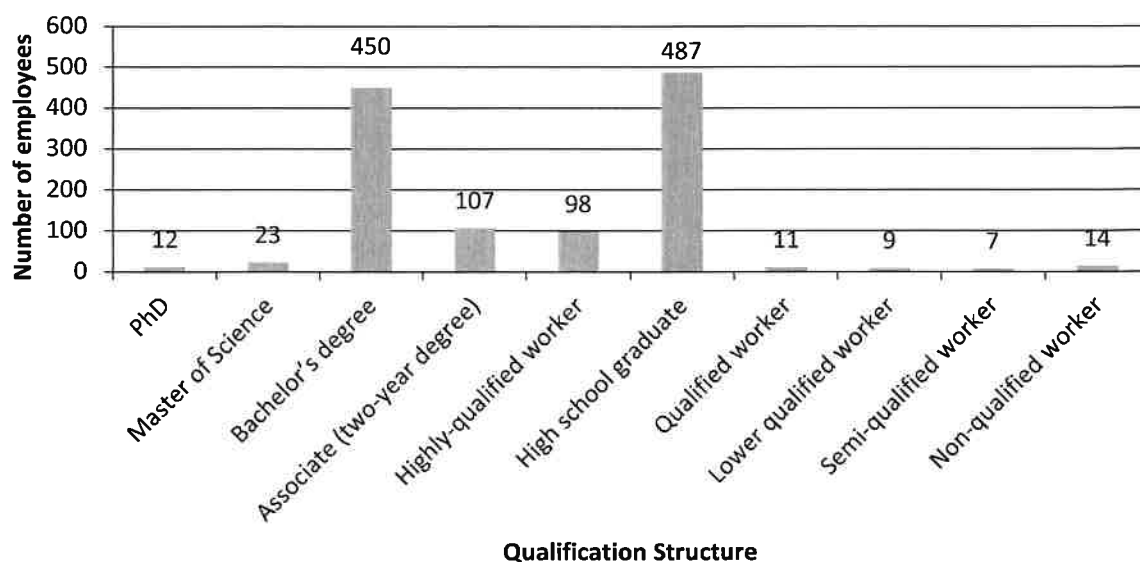
5. PERSONNEL

The company had 1,218 employees on 31 December 2019, which is 95 employees more than on 31 December 2018.

The Board of the Company adopted the 2019 Employment Plan that, together with two amendments, approved the employment of 88 new workers. During 2019, employment contracts were concluded with 28 workers approved by the 2018 Employment Plan, and with 55 workers approved by the 2019 Employment Plan.

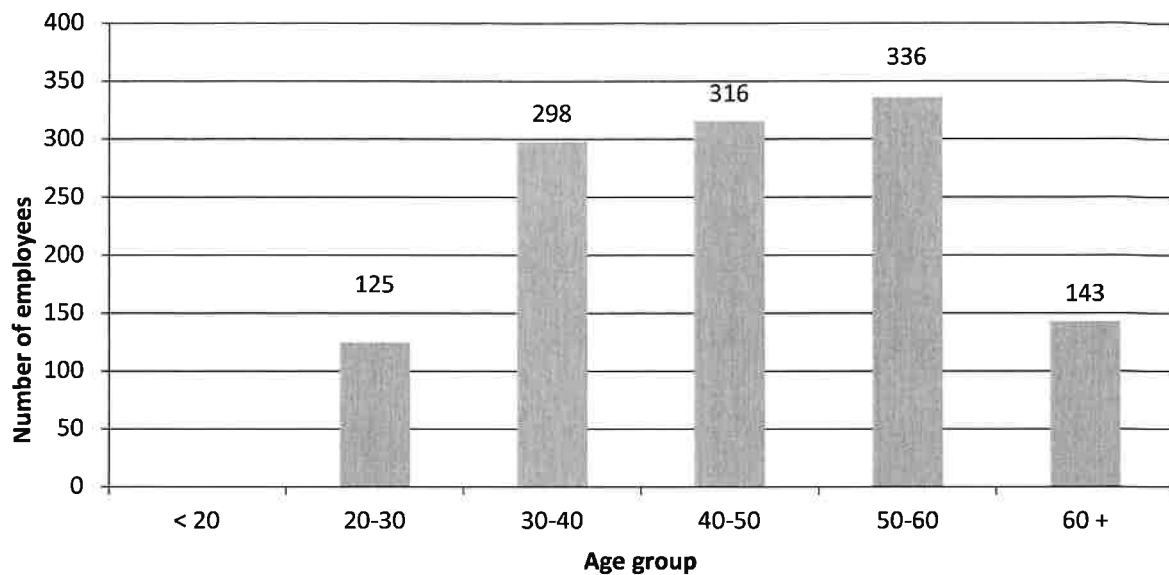
The rest of the employment was realized outside the plan, and in accordance with the Instruction on the employment procedure and the process of relocating workers due to unplanned situations and imminent threat to functioning of the EPS. In 2019, 60 employees left the Company. On 31 December 2019 110 employees were in the notice period.

Picture 9. Professional qualification structure (on 31 December 2019)



The average age of the Company's employee on 31 December 2019 was 46.1 years, as shown on picture 10.

Picture 10. Employees' age structure (on 31 December 2019)



6. HEALTH PROTECTION AND SAFETY AT WORK

During 2019, in the field of occupational safety and health, the following was performed:

- training newcomers to work in a safe manner,
- training workers to provide first aid,
- training to identify alcohol intoxication in workers,
- training workers to work safely at heights,
- training workers to work with a power saw,
- training workers to work on a hydraulic platform and on a hydraulic crane,
- training of the employer's authorized person in occupational safety,
- participating in inspection in the field of occupational safety,
- supervision tours of transformer stations,
- regular testing of work environment in facilities,
- regular testing of low-voltage electrical installations in facilities,
- periodic testing of facility lighting protection system on buildings,
- filing applications for temporary construction sites, appointing occupational safety coordinator,
- introducing external contractors to work and other activities related to temporary construction sites,
- participation in technical inspections of new and refurbished facilities,
- participation in audits of project tasks and projects,
- allocation of Work Instructions,
- regular inspections and work equipment testing,
- medical examinations of workers in jobs with special conditions and when working on a computer,

- participation in the procurement of personal protective equipment,
- performing internal inspections of facilities, equipment and employees,
- participation in the work of the Expert Working Group for Occupational Safety,
- participation in the work of the Occupational Safety Committee,
- preparation of documentation for the purpose of preparing the audit of the Risk Assessment,
- drafting a revision of the Occupational Safety Rulebook,
- other work in order to increase the safety of workers and facilities.

There were 13 injuries at work (5 at work, 8 on the way to work and vice versa) in 2019, which is 5 injuries more than in 2018. Due to specified injuries in 2019, 1,552 hours were lost, i.e. 194 days, which is 608 hours or 76 days less than in 2018.

During 2019, in the field of fire protection, the following was performed:

- inspections and functional testing of stable fire alarm and extinguishing systems,
- periodic inspections and control testing of fire extinguishers in all facilities of the Company, procurement of new and scraping of old fire extinguishers,
- troubleshooting of stable fire alarm and extinguishing systems,
- conducting evacuation and rescue exercises in facilities,
- training newcomers for initial fire suppression,
- drafting of Plans for alarming and fire suppression in case of fire for a specific number of facilities,
- participating in inspection in the field of fire protection,
- number of other jobs related to fire protection.

Based on the Program of activities in the implementation of special fire protection measures of interest to the Republic of Croatia in 2019, in the period from June to the end of 2019, additional fire protection measures were implemented in all transmission areas and inspections were carried out by power inspectors and inspectors from the Ministry of Interior of the RoC.

7. ENVIRONMENTAL PROTECTION

Due to active participation of all organisational units of HOPS, obligations related to the Register of Environmental Pollution which is kept by the Ministry of Environment and Energy (hereinafter: MEE), i.e. by the Croatian Environmental Protection Agency have been fully realized. The Register of Environmental Pollution is a set of data on the sources, type, quantity, manner and place of discharge, transfer and disposal of pollutants and waste into the environment, and it is extremely important that every company which acts responsibly in regards to environmental protection and nature fulfils all obligations.

Considering that HOPS is entered in the "Register of legal and natural entities-craftsmen engaged in the activity of import/export and placing controlled substances and/or fluorinated greenhouse gases on the market and servicing, renewal and use of these substances", successful servicing and maintenance of the equipment containing greenhouse gas sulphur-hexafluoride SF₆ has been continued. A detailed report on SF₆ gas emissions from the HOPS facility was submitted to the Croatian Environmental Protection Agency on the form KT 1 - Register of used quantities of controlled substances and fluorinated greenhouse gases. Also, data on total amount of SF₆ gas used in switchyards have been sent to the Ministry of Environment and Energy.

In 2019, the form "Environmental investments and expenditures for environmental goods and services (IDU-OK)" was delivered to the Croatian Bureau of Statistics, containing all the activities and financial expenditures of HOPS for the protection of the environment.

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In 2019, local self-government units (counties and municipalities) drafted numerous development strategies and programmes and spatial plans and their amended versions. Strategic environmental impact assessment procedures were carried out, i.e. assessment procedures on the need for strategic assessment and audits of strategic environmental impact assessment studies. Inquiries from local self-government units coming to HOPS can be classified in the following manner:

- Requests to competent authorities (HOPS) to provide data for the development of development strategies and programs, spatial plans and their amendments,
- Evaluations of the need for strategic assessment - expressing opinions on the need for strategic assessment in relation to the drafted strategic documents,
- Requests for providing an opinion on the content of the strategic environmental impact assessment study of strategies and programs for the development of local self-government units, and with regard to spatial plans, when it is established that the implementation of a strategic environmental impact assessment is necessary,
- Audit of completed strategies and development programs, spatial plans and strategic environmental impact assessment studies implemented in regard to listed documents, during the conduct of a public consultation procedure.

HOPS has responded to all received requests in a timely manner and with utmost care, thus contributing to environmental protection as much as possible and while enabling parallel development and construction of the transmission network in terms of ensuring security of supply to customers.

As environmental protection is becoming an increasingly demanding area for HOPS, due to continuous development and frequent changes in the legislative framework, especially following the process of harmonisation with EU legislation, resulting in new obligations and costs, HOPS has secured continuous monitoring and reporting on newly adopted regulations in the area of environmental protection on a monthly basis and with special reference to legal regulations and obligations that HOPS needs to fulfil.

In 2019 intensive activities were carried out to achieve the objectives and improve the environmental management system, resulting in a successful recertification audit of the system according to ISO14001:2015 standard. Thus, HOPS undoubtedly confirmed its dedication to systematic care for environmental protection.

HOPS also recognised energy efficiency as one of the most effective ways of achieving sustainable development goals considering it contributes to reduction of greenhouse gasses into the environment and has a positive effect on climate change. Implementing energy efficiency measures is important when raising the level of safety of energy supply and it represents the backbone of the EU single energy policy. In 2019 intensive activities were carried out to achieve the objectives and improve the energy management system, resulting in a successful second monitoring audit of the system according to ISO 50001:2011 standard. Thus, HOPS undoubtedly confirmed its dedication to systematic care for energy efficiency. Furthermore, during 2019 HOPS analysed in detail the provisions of the DIRECTIVE (EU) 2018/2002 of the European Parliament and of the Council of 11 December 2018 amending Directive 2012/27/EU on energy efficiency (Text with EEA relevance) and the DIRECTIVE of the European Parliament and of the Council of 30 May 2018 amending Directive 2010/31/EU on the energy performance of buildings and Directive 2012/27/EU on energy efficiency, in order to align its business activities with them in a timely manner.

Especially important for HOPS is the Environmental and Social Impact Assessment with the aim to strengthen the main North-South energy axis of the Croatian transmission system and to establish a new interconnection Croatia - Bosnia and Herzegovina (TL 400 kV Lika – Banja Luka). The study was financed by the European Bank for Reconstruction and Development and it was conducted in accordance with the highest European standards in order to ensure optimal protection of the environment.

In order to encourage production from renewable energy sources in an energy efficient and environmentally friendly way, HOPS procured in 2019 Guarantees of Origin (GO) for one part of electricity to cover losses in the transmission network. Considering that one guarantee of origin is issued for one MWh, by annulling 38,800 of guarantees of origin HOPS determined that for coverage of 10% of the realised losses in 2019 it used energy produced from renewable energy sources, thus further stimulating the production of renewable energy sources in Croatia.

8. BUSINESS RISKS

- **Risk of a slowdown in business operations and a decrease in operating revenues caused by the COVID-19 coronavirus pandemic**

Given the exposure to general economic risks that arose in early 2020 due to the outbreak of a new coronavirus pandemic and a significant reduction in many operating activities of a large number of businesses in Croatia and Europe, there may be problems in implementing adopted and initiated investment plans and network maintenance, as well as a significant increase in the risk of collecting network fees and other operating revenues.

A reduction in operating activities of business entities leads to a reduction in electricity consumption, which directly affects the Company's revenues, and in turn has an implication on liquidity. Therefore, in order to maintain the planned investment activities, the Company will have to take on more debt. Also, due to limited circulation of workers, certain investment activities cannot be carried out within the agreed deadlines, which directly affects the course of plan implementation.

- **Risks of application and implementation of laws and regulations**

The following have a special impact on the Company's operations:

- Rules for Balancing Electric Power System,
- Day and Intraday Explicit Capacity Allocation Rules Between the Control Areas,
- Amendments to the Transmission System Network Rules,
- Amendments to the Rules on Transmission Network Connection,
- Rules on Electricity Market Organisation
- Transposition and implementation upon completion of the new energy regulations of the European Union within the "Clean Energy for All Europeans" package, primarily through the new Electricity Market Act and the new Act on Renewable Energy Sources and High-Efficiency Cogeneration.

In the upcoming period, the role of the Agency entitled to take measures in case of inadequate behaviour of energy entities and to grant approvals for changing tariff items is extremely important.

Important business decisions and activities of the Company based on legal authorizations will depend to a large extent on the Agency's consent.

- **Availability and prices of electricity on the European market and hydrological conditions (water inflows)**

Electricity prices are largely impacted by supply and demand and available generation capacities in relation to electricity consumption. The availability of generation capacities has a significant impact, both on revenues from market functions because it affects electricity flows and transit through the transmission network, and directly on the costs of purchasing electricity for the needs of the Company.

Hydrological conditions also significantly affect flows, electricity import-export; extreme climatic conditions affect the increase in demand and availability of the electric power system (EPS), and all of it together has an impact on the associated system operation costs during the year.

- **Planning and procurement**

Timely adoption and financing of day-to-day business operation plans and investment plans, as well as continuous monitoring and harmonization of their implementation are the basis for effective development and maintenance of the transmission system.

For an effective fulfilment of all business and development plans, timely organisation and implementation of public procurement procedures plays a key role, which should therefore be given special attention. Unpredictable appeal procedures, which impede the planned dynamics of implementation, present a significant risk.

With the entry into force of the 2016 Public Procurement Act, the procurement procedure has become more complex and multidisciplinary. In addition, the Company has increasing requirements in terms of the amount of procurement (both numerically and financially) which is why improvements in the organisation of work are necessary. Staff capacity in the Procurement Department has been increased, and Procurement Departments have been organized in the Transmission Areas, but the constant increase in the scope of work exceeds the new staff capacities. In the first half of 2020, it is planned to amend the internal acts related to procurement. Improving staff capacities and updating internal acts should improve and speed up the procurement process in the Company, and thus reduce potential risks.

- **Risk of IT systems unavailability and threats to data security**

A great risk in technological and business operations of HOPS includes the defence of information system security and protection against cyber-attacks from third parties, which could result in disabling the availability and compromising the integrity of HOPS IT systems. That is why this issue was paid considerable attention in 2019.

- **Risk of delays in the implementation of SINCRO.GRID project**

The financing of the SINCRO.GRID project and the dynamic plan for its implementation have been approved for a period of five years. Delays in the project could cause financing problems, and therefore present a risk that should be reduced by constant monitoring and follow-up of the project progress, including taking corrective measures. Public procurement procedures for compensation devices in SS 400/220/110 kV Melina and SS 400/220/110 kV Konjsko presented a significant risk of project delays due to several appeals against the bidding documents and the selection decision. By the end of 2019, all public procurement procedures were successfully completed, which significantly reduced the risk of project delays.

- **Financing risk for the 110 kV Submarine Cable Replacement Project**

In order to control the risk of financing submarine cables, and to optimize business operations and the liquidity of the Company, the facilities were divided into two priority categories.

The first priority category includes cable connections Dugi Rat - Brač (Postira) and Crikvenica - Krk (Konjin), which are currently not in operation. The mentioned cables were included in the first priority category because without the construction of these sections there is no secured (n-1) criterion for the supply of the island, and each subsequent potential disruption affects the normal supply of electricity.

The second priority category includes cable connections Brač (Slatina) - Hvar (Travna), Hvar (Medvidban) - Korčula (Prapatna), Krk (Mali Bok) - Cres (Merag) and Cres (Osor 1) - Lošinj (Osor 2) which are in operation, but due to the age of the cables (≈50 years) they are no longer satisfactory in terms of reliability of the plant, and are of questionable environmental suitability (oil insulation). The mentioned cables were included in the second priority category because in case of potential unavailability of any of these cable sections, the normal supply of the island is not lost, but the (n-1) criterion for the supply of the island is lost, and any subsequent potential disruption threatens the island's supply of electricity.

The mentioned division of cables into priority groups enabled dispersing the investment impact through four years with one year of no investment.

- **Risk of increased requirements for further connection of wind farms and solar power plants to the transmission network**

In 2019, great interest was expressed in connecting wind farms and solar power plants to both the transmission and the distribution network, especially in the southern part of the EPS. Due to limited transmission capacities in the area, significant reinforcements and upgrades of the transmission network will be necessary for their connection. Given the expected pressure from investors and institutions as well as new projects, the Company should prepare several scenarios for an acceptable dynamics of RES integration into the system and communication with investors and the public.

- **Risk of unresolved property relations**

Resolving property relations is a fundamental precondition for the realization of an investment plan. For a number of reasons, the procedures for resolving them are very complex and time-consuming. Since they have a significant impact on the realization of the investment plan, the Company should pay special attention to their resolution, and try to systematically approach this issue.

- **Risk of non-compliance with the General Data Protection Regulation (GDPR)**

The Officer gives their opinion in accordance with the risk assessment they have made, and the decision on the final course of action depends on the person responsible for the specific inquiry (the responsible person may act differently or contrary to the Officer's opinion). It is important to emphasize everyone's responsibility to apply the relevant regulations (including the provisions on personal data protection) within their scope of work / their competence.

The Company, together with the Officer, takes all required actions to minimize the risk of non-compliance with the GDPR, as very high penalties are prescribed for violating the provisions of the GDPR (they can amount up to 4% of annual global turnover or EUR 20 million, depending on which amount is higher) and violation thereof represents a major financial and business risk for the Company.

- **Business environment and regulation risk**

Business environment risk is determined by the political, economic and social conditions in the country and the region, which have an impact on the business operation and business performance of domestic business entities. The energy sector, and especially regulated activities which include the transmission of electricity, is subject to a special regulation governing the manner and conditions of performing the activity, which in this respect represents a regulatory risk.

- **Financial risks**

The Company's Management Board monitors and manages financial risks (market risk, credit risk, liquidity risk and interest rate risk) related to the Company's operations.

The situation on the financial markets globally and in the Republic of Croatia can be a limiting factor for refinancing of the existing and securing new credit arrangements for financing of planned investment projects.

Country risk premium and the credit rating of HEP as a possible fund provider for the Company's investments are both important for taking on new debt because they affect the margin that financial institutions ask for above the reference interest rates.

Long-term and short-term loans are mostly linked to the EUR exchange rate. In the event of a fall in the value of Kuna, significant negative exchange rate differences are expected which will increase expenses and the cash outflow during loan repayment.

- **Risks based on participation in projects co-financed by Horizon 2020, the European Union Research and Innovation programme for the 2014-2020 period**

The consortium's experience in managing complex international projects, together with its technological competence in communication and networking, allows the identification of the following main areas of possible risks:

- Technical: lack of competence to overcome unexpected difficulties.
- Financial: deterioration of partner's economic status, which imposes a halt or unacceptable reduction of all its activities.
- Availability of key resources: withdrawal from participation in the resource project with key roles.

Different combinations of these three main negative factors can also occur with the effect of increasing their impact.

In all projects co-financed by Horizon 2020, the European Union's Research and Innovation programme for the period 2014-2020 that HOPS takes part in, the project consortium has developed Contingency Plans in which risks have been identified and assessed as low, moderate or high. Low risks are addressed at the consortium level, moderate risks may require special action and attention from the Company's management, while high risk control requires significant additional actions and high priority management attention as this type of risk may be reported to the Commission. It is crucial to monitor risks both in their status and in terms of required activities. For this reason, the Emergency Plan includes recording changes and the response to changes in environmental conditions in order to avoid risky events.

9. COMPANY OBJECTIVES IN THE FUTURE PERIOD

The core task of the Company, in the forthcoming period as well, will be to ensure reliable operation of the EPS and secure supply of electricity to customers. In the next ten years, it is realistic to expect a conservative increase in electricity consumption and a moderate increase in the charge for transmission network use, which makes up for a significant part of the Company's revenue. In order to accomplish the core tasks and maintain investment potential, the Company will take measures to reduce total operating costs with an emphasis on reducing the costs of ancillary services, balancing and losses.

Given the economic and technical characteristics, optimal use of ancillary services, intensive market development, increasing number of market participants and transactions, participation in the stock market with predictable market integration, and the upcoming introduction of balancing energy market, there are increasing challenges and risks in the Company's business operations. In this sense, it is necessary to consider the needs and timely increase the resources of the Company (staff, IT support) that can successfully respond to new challenges and risks.

In 2020, the Company plans activities related to the opening of the market of ancillary services and energy balancing services by providing new procurement mechanisms in accordance with the new Rules for Balancing Electric Power System. Also, in 2020, the plan is to integrate the participants of the consumption management pilot project into the new ancillary services market. The project was launched with the aim of encouraging the participation of network users who own facilities for the provision of ancillary services in the provision of ancillary services. In addition, several projects at the European level aimed at optimizing the supply of balancing energy are underway.

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After the completion of adopting EU energy regulations within the "Clean Energy for All Europeans" package, activities for their implementation at regional and EU level have begun. In the future it is necessary to intensify preparations for their implementation at the national level, primarily through the new Electricity Market Act and the new Act on Renewable Energy Sources and High-Efficiency Cogeneration, which requires cooperation with the Ministry of Environment and Energy, the Agency and other relevant entities.

Significant improvements in the medium term, in terms of unification and optimization of processes related to the operation of system operators, are expected through the adoption and application of the provisions of EU network rules directly applicable in all Member States, which will ultimately increase security of supply and RES integration and enable further development of the EU electricity market.

Providing energy to cover losses in accordance with transparent, impartial and market principles is one of the duties of HOPS in line with Article 28 of the Electricity Market Act. HOPS will therefore continue to systematically monitor, analyse and provide energy to cover losses in the transmission network by combining long-term and short-term procurement.

In order to effectively address the issue of property relations which are the basic precondition for the use of existing and the construction of new transmission network facilities, a special team has been appointed at the Company level that systematically resolves open issues in this area and regularly reports to the Company Management Board. The Company will also propose the necessary amendments to the legislation in this area to the Ministry of Environment and Energy, which aim to systematically address this problem for all line infrastructure at the national level.

After a successful implementation of the Single Day Ahead (SDAC / MRC) and Intraday (SDIC/XBID) Coupling Project for the Croatian and Western European electricity market, the Company will proceed with activities for the selection of the following market coupling projects with some of the remaining neighbours.

Activities for the preparation of the future integration of SEE CAO with JAO will continue, or at least the inclusion of the remaining border (Croatia – Bosnia and Herzegovina) in JAO in order to optimize the necessary activities of the Company for long-term cross-border capacity allocation in accordance with the FCA.

In 2019, the Job Posts Analysis Team started to create a catalogue describing job posts in the Croatian Transmission System Operator Ltd., and this work continues in 2020. The task of the Team in 2020 is to prepare an analysis of job posts and provide descriptions of all job posts in the Company.

Given the technological level of the existing business information system and the growing needs and requirements in terms of efficiency and speed of business operations, a project for replacement of the business information system is planned in the coming period. It will ensure optimal working conditions and efficient and rational business operations in the Company.

Since a quality vehicle fleet is a prerequisite for successful performance of activities, the Company will continuously renew the vehicle fleet with the aim of reducing the total maintenance costs and increasing the safety of the Company's employees in traffic.

In the current Ten-Year Transmission Network Development Plan for the period 2019-2028 (as well as the Ten-Year Transmission Network Development Plan for the period 2020-2029, which is in the process of being approved by HERA), several significant projects should be particularly emphasized.

In the first place, the continuation of activities on the implementation of the SINCRO.GRID project. The largest part of this project is the installation of compensation plants in SS Konjsko, SS Melina and SS Mraclin, and a virtual cross-border control centre tasked with centralised coordination of the operation of reactive power sources of the Croatian and Slovenian energy systems.

Ensuring a reliable EPS operation and a secure supply of electricity to customers throughout the territory of the Republic of Croatia is the Company's priority. Special emphasis should be placed on measures taken in Istria, the Adriatic islands and the Dubrovnik area, as important tourist destinations. Due to its dependence on TPP Plomin, Istria is planned to be additionally secured by interventions to increase the transmission capacity of overhead lines from the direction of Rijeka by installing HTLS conductors. Given the current state of the cables, replacement of the existing 110 kV submarine cables between the mainland and the central Dalmatian and Kvarner islands is a priority investment in the following five-year period. Due to its complexity and the amount of investment, the cable replacement project is a special challenge and financial burden for the Company. For this reason, the project has been divided into two phases. The first phase includes replacing the two cables that are currently unavailable, while the second phase includes replacing the remaining four cables foreseen by the 110 kV submarine cable replacement project. The security of supply of the island of Lošinj can be particularly highlighted, where activities are carried out in terms of consideration of possible solutions. For the Dubrovnik area, study considerations are being carried out to strengthen the energy connection with the rest of the Croatian EPS by constructing new transmission lines. Regarding the security of supply of the Dubrovnik area, it is necessary to continue activities on the connection of 220 kV lines of HPP Dubrovnik - SS Trebinje (B&H) to 220 kV busbars in SS 220/110 kV Plat. This would put the line in the regime of cross-border transmission capacity allocation, in accordance with EU regulations, and at the same time increase the security of supply of the area.

As part of the long-term reconstruction of the transmission network, the refurbishment project of a large number of existing 110 kV lines is still important. It consists in replacing worn parts, especially conductors, and the necessary increase of their transmission capacity by using new technologies.

Another important part of the Ten-Year Development Plan is the construction of new transformer stations and of a significant number of joint facilities with HEP ODS in the form of new SS 110/x kV.

At the end of the observed period, in accordance with the long-term ENTSO-E regional transmission network development plan for South East Europe (RG CSE), the construction of SS 400/220 kV Lika is planned at the location Brinje-Brlog as a necessary precondition for connection of planned generation facilities.

The project of strengthening the existing 220 kV network and the construction of a new 400 kV transmission line in the section Konjsko - Brinje (Lika) - Melina will be largely conditioned by plans to connect the new generation facilities, especially wind farms and solar power plants.

10. CONCLUSION

Based on the above, it is evident that in 2019 the Company successfully fulfilled its statutory tasks and obligations, international obligations and goals and tasks defined by the Work Programme of the Board of the Company for the 2018 - 2022 period.

Electric power in Croatian EPS is procured by production capacities in Croatian EPS, as well as by importing electric power from neighbouring countries.

By comparing the available transmission capacities and the available production capacities with the average hourly loads of the transmission system, the sufficiency of production and import capacities for providing the necessary quantities of electric power to end customers is evident for 2019. Still, hydrological conditions during certain parts of the year and the unavailability and a lack of price competitiveness for thermal power plants have caused high import into Croatian EPS. There were no significant operational events with greater non-deliver of electrical power recorded during the year.

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The Company, via ENTSO-E mechanisms, participates in analyses related to sufficiency for both short-term, mid-term and long-term plan. Development plans are continuously adjusted with the goal of ensuring the supply safety.

The following activities during the year and the events that occurred after the 2019 business year ended were crucial for the evaluation of business operations, i.e. for the implementation of measures and activities on the basis of established business goals in 2019, and for further future development of the Company:


- significant changes in the area of balancing EPS,
- high level of implementation of business and investment plans,
- drafting and adopting 10G plan (in the process of approval at the Agency),
- orderly and timely completion of international obligations of the Company,
- continuation of implementation of the SINCRO.GRID project which is key for a more efficient operation and management of EPS and the integration of OIE and
- successful linking of Croatian intraday market of electric power into a multi-regional connected electricity market.


Operations and development of the Company are continuously adjusted to the set goals and tasks conditioned by the requirements of network users, legislative and regulatory frameworks, and the regional and European environment.


In determining the optimal development of transmission infrastructure in the future, the Company will specially focus on:


- achieving satisfactory security of the buyers' supply within the territory of the RoC,
- achieving satisfactory reliability, availability and sufficiency of Croatian transmission network for uninterrupted running of activities of all participants in the electricity market (manufacturers, traders and suppliers, and other entities),
- allowing new users to connect to the transmission network under equal, tangible and non-discriminatory conditions,
- controlled integration of OIE into the transmission system and
- defining the configuration of the transmission network in future time sections that will be sufficient and elastic in order to enable the fulfilment of the aforementioned requirements in the widest possible range of action of uncertain influencing factors.

In order to continue business success in continuity, especially in extraordinary circumstances caused by the pandemic of the new corona virus COVID 19, the Company Board will continue with responsible and systemic management of business operations and risks. Special attention will be on: maintaining a high level of reliability of the transmission network as national infrastructure of the greatest importance for the RoC and a high level of electricity supply security at the level of Croatian transmission system, maintaining operating costs at a justified level and ensuring timely development of the transmission network via continuous investments.


Dejan Liović
Board member


Zlatko Visković
Board member


Tomislav Plavšić
President of the Board


Hrvatski operator prijenosnog sustava d.o.o.
Kupuska 4, Zagreb 1

Statement of Management's Responsibilities

The Management Board of Croatian Transmission System Operator Ltd., Zagreb, Kupaska 4, (hereinafter: "the Company") is responsible for ensuring that the annual financial statements are prepared in accordance with the applicable International Financial Reporting Standards as adopted by the European Union to give a true and fair view of the financial position, the results of operations, the changes in equity and the cash flows of the Company for that period.

The Company separately prepares and issues an annual report in accordance with legal and regulatory provisions.

The Board has a reasonable expectation that the Company has adequate resources to continue in operational existence for the foreseeable future. Accordingly, the Board has adopted the going concern basis in preparing the financial statements of the Company.

In preparing those financial statements, the responsibilities of the Board include ensuring that:

- suitable accounting policies are selected and then applied consistently;
- judgments and estimates are reasonable and prudent;
- applicable financial reporting standards are followed, subject to any material departures disclosed and explained in the financial statements; and
- the financial statements are prepared on the going concern basis unless such assumption is not appropriate.


The Board is responsible for keeping proper accounting records, which disclose with reasonable accuracy at any time the financial position and the results of operations of the Company and their compliance with the Croatian Accounting Law and the International Financial Reporting Standards as adopted by EU. The Board is also responsible for safeguarding the assets of the Company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The Management Board is also responsible for the preparation and content of the Management Report in accordance with Article 21 of the Croatian Accounting Law. The management report presented on pages and the financial statements were approved by the Management Board on April 23, 2020 for submission to the Supervisory Board.


Signed on behalf of the Management Board:


Dejan Liović
Board member


Zlatko Visković
Board member


Tomislav Plavšić
President of the Board

Croatian Transmission System Operator Ltd.
Kupaska 4
10000 Zagreb
Republic of Croatia
23 April 2020


Hrvatski operator prijenosnog sustava d.o.o.
Kupaska 4, Zagreb

INDEPENDENT AUDITORS' REPORT

To the owner of CROATIAN TRANSMISSION SYSTEM OPERATOR Ltd.

Report on the audit of the annual financial statements

Opinion

We have audited the annual financial statements of Croatian Transmission System Operator Ltd., Zagreb, Kupska 4, ("the Company") for the year ended 31 December 2019, which comprise the statement of financial position as at 31 December 2019, the statement of comprehensive income, statement of the changes in equity, and statement of cash flows for the year then ended, and accompanying notes comprising significant accounting policies and other explanatory information.

In our opinion, the accompanying annual financial statements give a true and fair view of the financial position of the Company as at 31 December 2019 and of its financial performance and its cash flows for the year then ended in accordance with the Accounting Act and the International Financial Reporting Standards ("IFRS") as adopted by European Union and published in official gazette of EU.

Basis for Opinion

We conducted our audit in accordance with Accounting Act, Auditing Act and International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the annual financial statements section of our Independent Auditor's Report. We are independent of the Company in accordance with the Code of Ethics for Professional Accountants (IESBA Code), and we have fulfilled our other ethical responsibilities in accordance with the IESBA Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the annual financial statements of the current period and include identified most significant risks of material misstatement due to error or fraud with the highest impact on our audit strategy, on our resources available and the time spent by the engaged audit team. These matters were addressed in the context of our audit of the annual financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

First application of IFRS 16 Leases

The Company recognized right-of-use asset in the amount of HRK 4,716 thousand and lease liabilities in the amount of HRK 4,755 thousand for the year ended 31 December 2019. The Company has chosen a practical retroactive approach for the application of IFRS 16 where the cumulative effect of the initial application of the standard are recognized as an adjustment to the opening balance of retained earnings on 1 January 2019 with the application of simplifications in accordance with point C.8. (b) ii of that standard.

For more detailed information see note 2.4. Changes in accounting policies and disclosures, 3.3. Summary of accounting policies - Leases, Note 18. Right-of-use asset and Note 32. Other long-term liabilities.

Key audit matters	How we audited key audit matters
<p>The new accounting standard "International Financial Reporting Standard 16 - Leases" (IFRS 16) came into force on 1 January 2019. IFRS 16 replaces the existing standard IAS 17 and defines how company should recognize, measure, present and disclose leases. Standard introduces a single accounting model and requires a lessee to recognize assets and liabilities for all leases unless lease term is 12 months or less or for which the underlying asset is of low value.</p> <p>The Company has a smaller number of lease agreements for business premises that were previously stated as operating leases and now, since they meet the definition of lease according to the new standard as right-of-use asset and lease liabilities.</p> <p>By reviewing and analyzing other contracts, such as telecommunications lease agreements, the Company determined that they do not meet the definition of lease under the new standard and continued to recognize them in accounting as in previous accounting periods.</p> <p>The fact that the standard requires Management to use significant estimates and assumptions (incremental borrowing rate, lease duration) makes this matter of particular importance to our audit.</p>	<p>Our audit procedures related to this area, among other things, included:</p> <ul style="list-style-type: none"> • verification that the lease contracts are properly qualified in accordance with IFRS 16 by comparing with the original contract or other supporting information and checking the mathematical accuracy of IFRS 16 calculation for each lease by recalculation, • analysis whether the Company's contracts other than those recorded as right-of-use asset meet the definition of lease under the new standard and whether they should be stated as right-of-use asset and lease liabilities, • assessment of the appropriateness of the discount rates applied in determining the amount of the present lease liability, • effect analysis of the IFRS 16 application, • review if disclosures in the financial statements are sufficient and appropriate in accordance with the requirements of IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors. <p>We have been assured that the presentation, measurement and disclosure of right-of-use asset and lease liabilities are in accordance with the requirements of IFRS 16.</p>

Contingent liabilities based on initiated litigation	
<p>The Company has stated the provisions for the contingent liabilities due to court cases in which the Company is a defendant on 31 December 2019 in the amount of HRK 48.058 thousand (31 December 2018 in the amount of HRK 23,955 thousand). For further information see note 3.12. Provisions, note 4 Key accounting judgments and estimates and note 31. Provisions in the annual financial statements.</p>	
Key audit matters	How we audited key audit matters
<p>Due to its specific activity, the Company is within the ordinary course of business exposed to a significant number of long-standing court disputes (eg expropriation compensations, compensation for fire damage, etc.) whose outcomes could potentially adversely affect financial performance.</p> <p>Provisions are recognized when the Company has a present obligation (legal or constructive) as a result of a past event and it is probable (i.e. more likely than not) that an outflow of resources will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation.</p> <p>Complex legal issues require management to make complex assessments with a high level of judgment and uncertainty, which can lead to the recording of significantly incorrect amounts of provisions. The outcome of the court proceedings is beyond the Company's control, and the Management Board's assessment is inherently uncertain and depends on the course, outcomes and judgments in the court proceedings. The Management Board makes estimates of the court proceedings based on the opinions of the internal legal department and external attorneys representing the Company.</p> <p>Consequently, the Management Board's assessment of the existence of the present obligation, the probability of settling it and the existence of a reliable estimate of the amount that will be required to settle the obligation requires the Management Board to assess the risks and uncertainties associated with legal proceedings to ensure that these events are properly measured, presented and disclosed in the financial statements.</p> <p>Given the significance of the amount and complexity of the outcome assessment process, the matter of court disputes and potential liabilities was of particular significance for our audit.</p>	<p>Our audit procedures, among other things, included:</p> <ul style="list-style-type: none"> • an interview with the Company's Management Board in order to understand the assumptions that were considered when determining the need for provisions, • compliance assessment of the provision recognition policy for the outgoing court proceedings with the relevant financial reporting standards, • review of the purpose and nature of the material provisions, • obtaining and reviewing the opinions of external attorneys and other documents prepared by the Company, in order to assess whether they support the judgments of the Management Board on the recognized amounts of the provisions, • checking the mathematical accuracy of the provisions calculation, • review of the previously recorded provision amounts to estimate the accuracy of the previous judgments and estimates, • review of the required disclosures related to the provisions in the financial statements to determine whether they are accurate and complete. <p>By our audit procedures, we have been assured that the provisions in all material aspects are recorded and disclosed in the accordance with International Financial Reporting Standards.</p>

Assets under construction	
<p>The Company has stated in the annual financial statements as at 31 December 2019 assets under construction in the amount of HRK 582,608 thousand (31 December 2018 in the amount of HRK 494,204 thousand). For further information see Note 4. Key accounting judgements and estimates and Note 17. Property, plant and equipment in the annual financial statements.</p>	
Key audit matters	How we audited key audit matters
<p>One of the Company's main mission is to develop, build and maintain a transmission grid for reliable and sufficient customer service. Investments in the transmission grid are based on the ten-year transmission grid development plan for the period 2018 - 2027.</p> <p>There are mainly multiannual, technically complex projects of high financial value whose completion in the planned time and financial framework depends, among other things, on compliance with the company HEP Operator of Distribution System Ltd. regarding the dynamics of construction and financing. This also affects the complexity of the assets activation and the start of depreciation.</p> <p>Given the significance of investments in the Company's financial statements, this matter is of particular importance to our audit.</p>	<p>Our audit procedures, among other things, included:</p> <ul style="list-style-type: none"> • analysis of the minutes of the Management Board and the Supervisory Board meetings regarding the information related to investment plans and investment project decisions • assessment of the recognition policies compliance for the property, plant and equipment with relevant financial reporting standards; • review of the selected sample investment projects by checking contracts, invoices, delivery logs, etc. • analysis of expert sectors explanations on the current status and the anticipated completion of the ongoing investment projects • checking the required disclosures regarding the property, plant and equipment in the financial statements to determine that they are accurate and complete. <p>By our audit procedures, we have been assured that the position of assets under construction in all material aspects is recorded and disclosed in the accordance with International Financial Reporting Standards.</p>

Other Information in the Annual Report

Management board of Company is responsible for the other presented information. Other information contains the information included in the Annual Report, but does not include the annual financial statements and our Independent Auditor's Report on these statements.

Our opinion on the annual financial statements does not include other information, except to the extent explicitly stated in the part of our Independent Auditor's Report, entitled Report on Other Legal Requirements, and we do not express any kind of conclusion with assurance on them.

Related to our audit of the annual financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the annual financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstates. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of Management board and Those Charged with Governance for the Annual Financial Statements

The Management Board is responsible for the preparation of annual financial statements that give a true and fair view in accordance with IFRS and for such internal controls as the Management Board determines are necessary to enable the preparation of annual financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the annual financial statements, the Management Board of the Company is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless Management Board either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Company's financial reporting process.

Auditor's Responsibilities for the Audit of the Annual Financial Statements

Our objectives are to obtain reasonable assurance about whether the annual financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an Independent Auditor's Report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these annual financial statements.

As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- identify and assess the risks of material misstatement of the annual financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- obtain an understanding of internal control relevant to the audit 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 Company's internal control.

- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Management Board of the Company.
- conclude on the appropriateness of the Management's Board of the Company use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our Independent Auditor's report to the related disclosures in the annual financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our Independent Auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.
- evaluate the overall presentation, structure and content of the annual financial statements, including the disclosures, and whether the annual financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with the Group governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Report on Other Legal Requirements

Report based on the requirements of Regulation (EU) No. 537/2014

1. On 26 April 2018, the General Assembly of the Company, based on the proposal of the Supervisory Board of the Company, appointed the auditing company Audit d.o.o. to audit the annual financial statements for years 2018, 2019 and 2020. On 16 September 2019, the General Assembly of the Company, based on the proposal of the Supervisory Board of the Company, appointed the auditing company Crowe Horwath Revizija d.o.o. to audit the annual financial statements for the years 2019 and 2020.
2. At the date of this report, the auditing company Audit d.o.o. is continuously engaged in carrying out the Company's statutory audits from the audit of the annual financial statements of the Company for the year 2018 to the audit of the annual financial statements of the Company for the year 2019, which totals two years. At the date of this report, the auditing company Crowe Horwath Revizija d.o.o. is continuously engaged in carrying out Company's statutory audits from the audit of the annual financial statements of the Company for 2019 to the audit of the annual financial statements of the Company for 2019, which totals one year.
3. In addition to the matters we have included in our Independent Auditor's Report as Key Audit Matters within the subsection Report on the audit of annual financial statements, we have nothing to report in relation to point (c) of Article 10 of Regulation (EU) No. 537/2014.
4. By our statutory audit of the Company's annual financial statements for the year 2019, we are able to detect irregularities, including fraud in accordance with Section 225 Responding to Non-Compliance with Laws and Regulations of the IESBA Code, which requires us, in carrying out our audit engagement, to establish whether the Company complied with laws and regulations that are generally recognized to have a direct impact on the determination of significant amounts and their disclosures in annual financial statements, as well as other laws and regulations that do not have a direct effect on the determination of significant amounts and their disclosures annual financial statements, but compliance with which may be the key to the operational aspects of the Company's business, its ability to continue to operate as a going concern or to avoid significant penalties.

Unless we encounter, or find out about, non-compliance with any of the aforementioned laws or regulations that are apparently insignificant, according to our judgment of its content and its influence, financially or otherwise, for the Company, its shareholders and the wider public, we are obliged to inform the Company thereof and request to investigate this case and take appropriate measures to resolve the irregularity and to prevent the reappearance of these irregularities in the future. If the Company on the Balance Sheet date, does not correct irregularities based on which incorrect disclosures in the audited annual financial statements arise that are cumulatively equal to or greater than the amount of materiality for the annual financial statements as a whole, we are required to modify our opinion in the Independent auditor's report.

In the audit of the Company's annual financial statements for the year 2019, we determined the materiality for the financial statements as a whole in the amount of HRK 30,300,000 representing approximately 1.8% of sales revenue, because these revenue represent a stable business indicator including key revenues from the activities the Company is engaged in, namely revenue from the transfer of electricity, revenue from the delivered balancing electricity, revenue from the sale of the transmission capacities on the auctions and revenue from the inter-compensation mechanisms.

5. Our audit opinion is consistent with the additional audit report prepared for the Company's Audit Committee in accordance with provisions of the Article 11 of Regulation (EU) No. 537/2014.
6. We have not provided to the Company prohibited non-audit services during the period between the initial date of the Company's audited annual financial statements for the year 2019 and the date of this report. In addition, we have not provided services for the design and implementation of internal control procedures or risk management related to the preparation and / or control of financial information or the design and implementation of technological systems for financial information in the preceding year. Therefore, we have remained independent of the Company in the performance of the audit.

Report based on the requirements of the Accounting Act

1. In our opinion, based on the work that we performed during the audit, the information in the Company's Management Report for the year 2019 are in accordance with the accompanying annual financial statements of the Company for the year 2019.
2. In our opinion, based on the work that we performed during the audit, the Company's Management Report for 2019, is prepared in accordance with the Accounting act.
3. Based on the knowledge and understanding of the Company and its environment obtained while performing the audit, we have not found that there are material misstatements in the Company's Management Report for 2019.

In Zagreb, 23 April 2020

Audit d.o.o.
Benkovićeva 2
10000 Zagreb



Darko Karić
Director



Crowe Horwath Revizija d.o.o.
Hektorovićeva 2
10000 Zagreb



Sonja Hecker Tafra
Director, certified auditor





Kristina Mikčević, certified auditor




Croatian Transmission System Operator Ltd.
Statement of comprehensive income
For the year ended 31 December 2019

<i>(in thousands of HRK)</i>	Notes	2019	2018
Revenue from sales - related parties	6,35	1,451,642	1,465,987
Revenue from sales - third parties	6	234,303	249,151
Other income - related parties	35	517	843
Other income – third parties	7	39,192	39,535
		1,725,654	1,755,516
Materials and spare parts used	8	(17,852)	(16,485)
Service expenses	9	(178,484)	(178,354)
Personnel expenses	10	(202,001)	(184,890)
Depreciation and amortisation	16,17,18	(343,894)	(335,157)
Ancillary services	11,35	(325,342)	(294,390)
Transmission grid losses	11,35	(174,308)	(177,308)
Purchase of balancing energy	11,35	(127,328)	(177,284)
Other expenses – related parties	35	(46,561)	(48,201)
Other operating expenses	12	(121,162)	(112,115)
		(1,536,932)	(1,524,184)
Operating profit		188,722	231,332
Finance income	13	1,514	9,074
Finance costs	14	(24,845)	(24,321)
Net finance costs		(23,331)	(15,247)
Profit before tax		165,391	216,085
Income tax	15	(33,239)	(39,877)
Profit for the year		132,152	176,208
Other comprehensive income		-	-
Total comprehensive income for the year		132,152	176,208


Dejan Liović
Board member


Zlatko Visković
Board member


Tomislav Plavšić
President of the Board

The accompanying notes form an integral part of these financial statements.

Croatian Transmission System Operator Ltd.
Statement of financial position
As at 31 December 2019

<i>(in thousands of HRK)</i>	Notes	31 December 2019	31 December 2018
ASSETS			
Intangible assets	16	41,876	20,481
Property, plant and equipment	17	6,221,871	6,017,102
Right-of-use assets	18	4,716	-
Prepayments for property, plant and equipment	19	3,755	3,617
Investment property	20	4,440	4,440
Investments in associates	21	2,500	591
Financial assets at fair value through other comprehensive income	22	40,157	40,157
Receivables from sale of apartments	23	834	1,282
Deferred tax assets	15	42,545	46,964
Total non-current assets		6,362,694	6,134,634
Inventories	24	10,829	10,515
Trade receivables	25	68,684	30,756
Receivables from related parties	35	179,202	314,306
Other current assets	26	52,412	36,134
Short-term financial assets	27	19,640	15,167
Cash and cash equivalents	28	255,910	156,881
Total current assets		586,677	563,759
TOTAL ASSETS		6,949,371	6,698,393
EQUITY AND LIABILITIES			
Subscribed capital	29	4,948,627	4,929,195
Reserves	29	5,524	5,523
Retained earnings		236,527	167,220
Total equity		5,190,678	5,101,938
Subloan from and liabilities to related parties	30	421,764	419,667
Provisions	31	104,473	70,457
Other long term liabilities	32	463,649	447,923
Total non-current liabilities		989,886	938,047
Subloan from related parties (current portion)	30	-	75,898
Provisions	31	1,696	1,853
Trade payables	33	382,165	241,769
Payables to related parties	35	259,374	236,060
Other current liabilities	34	125,572	102,828
Total current liabilities		768,807	658,408
TOTAL EQUITY AND LIABILITIES		6,949,371	6,698,393

The accompanying notes form an integral part of these financial statements.

Croatian Transmission System Operator Ltd.
Statement of changes in equity
For the year ended 31 December 2019

(in thousands of HRK)	Subscribed capital	Reserves	Retained earnings	Total
As at 31 December 2017	4,929,195	5,523	289,017	5,223,735
First Effect of IFRS 15 on January 1, 2018	-	-	(298,005)	(298,005)
Profit for the year	-	-	176,208	176,208
As at 31 December 2018	4,929,195	5,523	167,220	5,101,938
Dividend	-	-	(62,845)	(62,845)
Increase of subscribed capital by entering things	19,432	1	-	19,433
Profit for the year	-	-	132,152	132,152
As at 31 December 2019	4,948,627	5,524	236,527	5,190,678

The accompanying notes form an integral part of these financial statements

Croatian Transmission System Operator Ltd.
Statement of cash flows
For the year ended 31 December 2019

(in thousands of HRK)	2019	2018
Profit for the year	132,152	176,208
Adjusted for:		
Income tax	33,239	39,877
Depreciation and amortisation	343,894	335,157
Increase in provisions	33,859	(2,950)
Net finance expense	23,165	15,247
Net book value of assets disposed	9,531	9,172
Increase in provision for inventories	714	1,632
Increase in provision for doubtful receivables, net	(228)	(895)
Impairment of financial asset	(1,909)	1,409
Change in fair value of investment property	-	(37)
Cash flows from operations before working capital changes	574,417	574,820
(Increase) / decrease in trade receivables	(36,327)	16,331
Decrease / (increase) in receivables from related parties	135,104	(162,696)
Decrease / (increase) in other receivables	(10,378)	(7,239)
Decrease in receivables for apartments sold	448	611
Decrease / (increase) in inventories	(1,096)	(831)
(Decrease) / increase in trade payables	137,513	33,120
(Decrease) / increase in liabilities to related parties	(105,075)	(22,553)
(Decrease) / increase in other liabilities	33,554	49,795
Income tax (paid)/ received	(34,719)	(44,118)
Cash flows from operating activities	693,441	437,277
Interest received	141	581
Increase in prepayments for tangible assets	(138)	960
Investment in associates	-	(2,000)
Deposits paid	(4,473)	(4,849)
Loans given	-	3,000
Purchases of property, plant, equipment and intangible assets	(558,934)	(422,500)
Cash used in investing activities	(563,404)	(451,015)
Dividends paid to the owner	(30,000)	-
Increase/ (decrease) of other financial liabilities	(955)	-
Interest paid	(53)	(53)
Cash flows used in financing activities	(31,008)	(53)
Net increase in cash and cash equivalents	99,029	12,379
Cash and cash equivalents at beginning of year	156,881	144,502
Cash and cash equivalents at the end of year	255,910	156,881

The accompanying notes form an integral part of these financial statements

1. GENERAL

Croatian Transmission System Operator Ltd., Zagreb (the "Company") is a limited liability company incorporated in the Republic of Croatia in 2005. The founder and sole owner of the Company is Hrvatska elektroprivreda d.d. (the "Parent Company" or "HEP d.d."), a joint stock company owned by the Republic of Croatia. The Company is registered at the Commercial Court in Zagreb, Republic of Croatia under the registration No. 01924427. The Company had an average of 1,161 employees in 2019 (2018: 1,123).

The company is registered for the transmission of electricity, and until 30 June 2013 it performed transmission services exclusively for HEP d.d. while after that transmission services are provided to other entities in the market.

The Company has certain business transactions with other members of the HEP Group, Related party transactions are set out in Note 35.

As at 31 December 2019 HEP Group consists of the following entities:

Members of the Group	Country	Core business activity
Hrvatska elektroprivreda d.d.	Croatia	Production and distribution of electricity and heat
HEP - Proizvodnja d.o.o.	Croatia	Electricity production
Hrvatski operator prijenosnog sustava d.o.o.	Croatia	Electricity transmission
HEP- Operator distribucijskog sustava d.o.o. (HEP-ODS)	Croatia	Electricity distribution
HEP Opskrba d.o.o.	Croatia	Electricity supply
HEP Elektra d.o.o.	Croatia	Electricity supply
HEP – Toplinarstvo d.o.o.	Croatia	Production and distribution of heat
HEP – Plin d.o.o.	Croatia	Gas distribution and supply
HEP ESCO d.o.o.	Croatia	Energy efficiency projects financing
Plomin Holding d.o.o.	Croatia	Energy production
CS Buško Blato d.o.o.	Bosnia and Herzegovina	Maintenance of hydropower plants
HEP – Upravljanje imovinom d.o.o.	Croatia	Leisure and Recreation services
HEP Telekomunikacije d.o.o.	Croatia	Telecom services
HEP NOC Velika	Croatia	Accommodation and education services
HEP – Obnovljivi izvori energije d.o.o.	Croatia	Electricity production
HEP –Trgovina d.o.o.	Croatia	Electricity trading
HEP – Energija d.o.o.	Slovenia	Electricity trading
HEP– Energija d.o.o. Mostar	Bosnia and Hercegovina	Electricity trading
HEP– Energija d.o.o. Beograd	Serbia	Electricity trading
HEP Energija sh.p.k.	Kosovo	Electricity trading
HEP VHS Zaprešić d.o.o.	Croatia	Design and construction of a multipurpose hydraulic system
LNG Hrvatska d.o.o.	Croatia	Gas supply
Sunčana elektrana Poreč d.o.o.	Croatia	Electricity production
Plin VTC d.o.o.	Croatia	Gas distribution and supply
EP Korlat d.o.o.	Croatia	Electricity production
IE-Nekretnine d.d.	Croatia	Real estate management
NE Krško	Slovenia	Electricity production

1. GENERAL (CONTINUED)

Governance and management

General Assembly

The General Assembly consists of the founder's representative:

Frane Barbarić	President	since January 1, 2018
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Supervisory Board

Members of the Supervisory Board in 2019 and 2018:

Kažimir Vrankić	President	from April 4, 2016
Alina Kosek	Member	from April 4, 2016 till April 3, 2020
Marijan Kalea	Member	from August 26, 2017
Ante Pavić	Member	from April 4, 2016 till April 3, 2020
Silvana Boban	Member (employees representative)	from October 1, 2019
Sandro Abram	Member (employees representative)	from January 1, 2019 till September 30, 2020
Marko Dvorski	Member	from April 4, 2020
Krešimir Ugarković	Member Član	from April 4, 2020
Denis Geto	Member (employees representative)	from May 21, 2014 till March 31, 2018
Dinko Andabaka	Member (employees representative)	from April 1, 2018 till December 31, 2018

Management Board in 2019 and 2018:

Tomislav Plavšić	President	from April 25, 2019
Dejan Liović	Member	from April 25, 2019
Mario Gudelj	President	from April 16, 2018 till April 24, 2019
Zlatko Visković	Member	from April 16, 2018
Ivica Modrić	Member	from April 16, 2018 till April 11, 2019
Miroslav Mesić	President	from September 2, 2013 till April 15, 2018
Zdeslav Čerina	Member	from September 2, 2013 till April 15, 2018
Darko Belić	Member	from September 2, 2013 till April 15, 2018

2. BASIS OF PREPARATION

2.1. Statement on Compliance

The financial statements have been prepared in accordance with the Accounting Act and the International Financial Reporting Standards ('IFRS'), which have been adopted by the European Commission and published in the Official Journal of the European Union. The Company does not prepare consolidated financial statements since it uses the exemption in accordance with the International Accounting Standard ("IAS") 27 Consolidated and Separate Financial Statements, as the Company in total is a subsidiary of Hrvatska elektroprivreda d.d., a company incorporated in Zagreb, Croatia. HEP d.d., prepares financial statements that include consolidated financial statements prepared in accordance with International Financial Reporting Standards.

2.2. Basis of the preparation

Financial statements have been prepared by the application of basic accounting presumption of the business event inception upon which the effects of operations are recognised when arisen and are shown in the financial statements for the period to which they relate and with the basic accounting presumption of the going concern.

The financial statements are prepared on a historical cost basis, with the exception of investments in real estate at fair value. The methods used to measure fair value are explained in Note 5 with the annual financial statements.

2.3. Functional and reporting currency

The financial statements are prepared in the Croatian currency, kuna (kn), which is also a functional currency, rounded to the nearest thousand.

The Company's financial statements are prepared in Croatian kuna as the functional and reporting currency of the Company. The financial statements are presented in thousands of Croatian Kuna ('000 HRK'), which, since this is the currency in which most of the Company's business events are reported, is also the functional currency of the Company. At 31 December 2019 the exchange rate for 1 USD and 1 EUR was HRK 6,65 or HRK 7,44 (31 December 2018: HRK 6,47 or HRK 7,42).

2. BASIS OF PREPARATION (continued)

2.1. Changes in accounting policies and disclosures in 2019 and 2018

a) Adoption of the International Financial Reporting Standard 16 Leases

Since January 1, 2019, the Company has applied the International Financial Reporting Standard 16 Leases (IFRS 16) using a modified retroactive approach and has not restated the comparative data for 2018 as permitted by the standard and recorded at the date of first application the assets with the right of use in the same amount as well as lease obligations.

The adoption of IFRS 16 resulted in changes in the accounting policies of the Company. IFRS 16 introduces a unified accounting model for lessees and requires the recognition of assets and liabilities for all leases, with possible options for exempting leases with a maturity of 12 months or less or when the asset in question is of low value. The lessee recognizes the property in the form of a right to use the property, which represents the right to use the property that is the subject of the lease and an adequate lease obligation, which represents the obligation to pay the lease. IFRS 16 generally retains lessor accounting as in IAS 17, while maintaining the difference between operating leases and finance leases. The Company has no significant leases in which it operates as a lessor.

IFRS 16 replaced IAS 17 Leases and IFRIC 4 - Determining whether a Arrangement Contains a Lease, SIC 15 Operating Leases - Incentives, and SIC 27 Assessing the Essence of a Transaction Including the Legal Form of a Lease.

Following the adoption of IFRS 16, the Company recognized the rights of use and the lease obligation relating to the use of business premises and business cars, which were previously classified as operating leases.

The lease liability is measured at the present value of the remaining lease payments, discounted using the interest rate specified in the lease agreement or the Company's incremental borrowing rate as of January 1, 2019. The Company's incremental borrowing rate is the rate at which a similar lease may be contracted, by an independent lessor, under comparable terms and conditions. The weighted average rate applied was 4,851%.

Assets with right of use are stated at an amount equal to the lease obligation and are adjusted for the amount of any prepaid or accrued lease payments.

As a result of the implementation of the new standard as of January 1, 2019, the Company's assets and liabilities under the leasehold rights increased by HRK 2,886 thousand, without affecting net assets. The following table presents the impact of adopting IFRS 16 in the statement of financial position as of January 1, 2019:

2. BASIS OF PREPARATION (continued)

2.4. Changes in accounting policies and disclosures in 2019 and 2018 (continued)

a) Adoption of the International Financial Reporting Standard 16 Leases (continued)

	1st January 2019	31st December 2019	Difference
<i>In thousands of HRK</i>	IFRS 16	IAS 17/IFRIC 4	
Assets			
Long term assets			
Right-of-use assets	2,886	-	2,886
CAPITAL AND RESERVES AND LIABILITIES			
Longterm liabilities			
Long-term liabilities for lease	2,886	-	2,886

The Statement of Comprehensive Income for the year ended December 31, 2019 includes HRK 1,155 thousand of depreciation related to eligible assets (Note 18) and HRK 165 thousand of financial expense related to interest on lease liabilities (Note 14).

Expenses related to short-term leases, for which the exemption from IFRS 16 was applied, amounted to HRK 578 thousand in 2019.

Following the adoption of IFRS 16, the nature of the costs associated with leases has changed, as the Company recognizes the cost of depreciation on property in the form of rights of use and interest expense on lease liabilities. Previously, the Company recognized operating lease expense on a straight-line basis over the term of the lease and recognized assets and liabilities only to the extent that there was a difference between the actual lease payments and the recognized expense for the year.

Further details on the specific accounting policies of IFRS 16 that have been applied in the current period, as well as the previous accounting policies that have been applied in the comparative period, are described in detail in Note 3.3.

2. BASIS OF PREPARATION (continued)

2.4. Changes in accounting policies and disclosures in 2019 and 2018 (continued)

b) Adoption of IFRS 9 Financial Instruments

At the date of initial change, on 1 January 2018, the financial instruments were as follows:

<i>(in thousands of HRK)</i>	Category of measurements		Accounting amount		IFRS 9 effect
	Original (IAS 39)	New (IFRS 9)	Original (IAS 39)	New (IFRS 9)	
Long term assets					
Equity instruments	Available for sale	Fair value through other comprehensive income	40,157	40,157	-
Receivables from the sales of apartments	Amortised cost	Amortised costs	1,893	1,893	-
Current Assets					
Receivables from customers and other receivables	Amortised cost	Amortised cost	397,595	424,320	-
Bank's deposit	Amortised cost	Amortised cost	15,911	15,911	-
Cash and cash equivalents	Amortised cost	Amortised cost	144,502	144,502	-
Total					-

In July 2014, the International Accounting Standards Board issued the International Financial Reporting Standard (IFRS 9) "Financial Instruments". The application of the standard is mandatory for reporting periods beginning on or after 1 January 2018. The Standard introduces a new look at the classification and measurement of financial instruments and replaces IAS 39. The Company adopted the IFRS 9 Financial Instruments Standard as at 1 January 2018, and the first and continuous application of the Standard did not have any significant impact on the annual financial statements. Significant new accounting policies applied in the current period are disclosed in Note 3.13. and 3.14. to the annual financial statements and in Note 5 to the annual financial statements.

2. BASIS OF PREPARATION (continued)

2.4. Changes in accounting policies and disclosures in 2019 and 2018 (continued)

c) Adoption of IFRS 15 Revenues from contracts with customers

By adopting IFRS 15, there have been changes in accounting policies and adjustments of the annual financial statements related to the recognition of the revenue from grid connections. According to this standard, revenue arising from the payment of a network connection fee is linked to a future network usage agreement and electricity supply contract and should be systematically allocated over a period of useful life of the built-in or transferred asset used to provide permanent service, the remuneration received from the customers has to be recorded as deferred income and recognized as the income of the period at the same time as the depreciation of the assets to which it refers. Related to the current way of recognizing these revenues, on 1 January 2010, the Company adopted the Interpretation of IFRIC 18 "Transfer of Assets from Customers" and in accordance with its provisions, compensation received from customers for grid connection as of 1 July 2009 are recorded as income, in the amount of money received from the customer at the time the customer is connected to the grid or when it is possible to have a permanent access to the delivery of the service. Until the adoption of IFRIC 18 "Transfer of Assets from Customers", the connection fees, were allocated through the expected useful life of the asset, which is the policy that was continued to be applied after the adoption of IFRIC 18 "Transfer of Assets from Customers" for connection fees received before 1 January 2010.

Pursuant to the provisions of IFRS 15 due to the link between the connection agreement and a contract for the electricity supply, for the assets recognised in accordance with IFRIC 18 which has not yet been fully depreciated were carried out adjustments of the retained earnings for part of the revenue that is recognized at the time of connecting to the grid, which means connections recorded in the period from 1 July 2009 to 31 December 2017.

Applying point C3. (b) IFRS 15 related to the retrospective application with cumulative effect on the initial application of Standard as at 01 January 2018, the Company has as at 31 December 2018 restated opening balances as at 1 January 2018 on following positions: deferred income was increased by HRK 316,450 thousand, deferred tax assets were increased by HRK 18,445 thousand and accumulated losses were recorded in the amount of HRK 298,005 thousand.

At the date of first application on 1 January 2018 to the Statement of the financial position / Balance sheet following adjustments were made:

	IAS 18/ IFRIC 18 Accounting amount 31 December 2017	IFRS 15 First application effects	IFRS 15 Accounting amount 1 January 2018
	in thousands of HRK	in thousands of HRK	in thousands of HRK
Deferred tax assets	22,861	18,445	41,306
Other long-term liabilities (Deferred income for assets received free of charge)	70,093	316,450	386,543
Retained earnings	289,017	(298,005)	(8,988)

2. BASIS OF PREPARATION (continued)

2.4. Changes in accounting policies and disclosures (continued)

c) Adoption of IFRS 15 Revenues from Customer Contracts (continued)

The effects of adoption of the IFRS 15 in relation to the application of IAS 18 / IFRIC 18 on the Statement of the financial position / Balance sheet are presented in the following table:

<i>(in thousands of HRK)</i>	2018. IFRS 15	2018. IAS 18/IFRIC 18	Difference
Intangible assets	20,481	20,481	-
Property, Plant and Equipment	6,017,102	6,017,102	-
Advances for PP&E	3,617	3,617	-
Property investment	4,440	4,440	-
Investments in affiliated companies	591	591	-
Financial assets at fair value through other comprehensive income	40,157	40,157	-
Receivables from the sales of apartments	1,282	1,282	-
Deferred tax assets	46,964	28,519	18,445
Total non-current assets	6,134,634	6,116,189	18,445
Inventory	10,515	10,515	-
Accounts receivables	30,756	30,756	-
Receivables for affiliated companies	314,306	314,306	-
Receivables for corporate income tax	12,984	2,285	10,699
Other current assets	23,150	23,150	-
Given deposits and loans	15,167	15,167	-
Cash and cash equivalents	156,881	156,881	-
Total current assets	563,759	553,060	10,699
TOTAL ASSETS	6,698,393	6,669,249	29,144
Subscribed capital	4,929,195	4,929,195	0
Reserves	5,523	5,523	0
Retained earnings	167,220	513,958	(346,738)
Total capital	5,101,938	5,448,676	(346,738)
Loans to affiliated companies	419,667	419,667	0
Provisions	70,457	70,457	0
Other long-term liabilities	447,923	85,459	362,464
Total long-term liabilities	938,047	575,583	362,464
Loans to affiliated companies	75,898	75,898	0
Reservations	1,853	1,853	0
Accounts Payables	241,769	241,769	0
Liabilities to affiliated companies	236,060	236,060	0
Other short-term liabilities	102,828	89,410	13,418
Total short-term liabilities	658,408	644,990	13,418
TOTAL CAPITAL AND LIABILITIES	6,698,393	6,669,249	29,144

2. BASIS OF PREPARATION (continued)

2.4. Changes in accounting policies and disclosures (continued)

c) Adoption of IFRS 15 Revenues from Customer Contracts (continued)

The effects of adopting IFRS 15 in relation to the application of IAS 18 / IFRIC 18 on the Statement of comprehensive income are presented in the following table:

(in thousands of HRK)	2018 IFRS15	2018 IAS 18/IFRIC 18	Difference
Sales Revenues - Affiliated Companies	1,465,987	1,527,419	(61,432)
Sales Revenues - outside the Group	249,151	260,569	(11,418)
Other operating income - affiliated companies	843	843	0
Other operating income - outside the Group	39,535	26,117	13,418
	1,755,516	1,814,947	(59,431)
Used material and spare parts	(16,485)	(16,485)	-
Service Costs	(178,354)	(178,354)	-
Staff costs	(184,890)	(184,890)	-
Depreciation cost	(335,157)	(335,157)	-
Auxiliary service costs	(294,390)	(294,390)	-
Costs of Losses on transmission network	(177,308)	(177,308)	-
Costs of electricity supply	(177,284)	(177,284)	-
Other costs - affiliated companies	(48,201)	(48,201)	-
Other operating expenses	(112,115)	(112,115)	-
	(1,524,184)	(1,524,184)	-
Profit or loss for the year	231,332	290,763	(59,431)
Financial revenue	9,074	9,074	-
Financial expenses	(24,321)	(24,321)	-
Net loss from financial activities	(15,247)	(15,247)	-
Profit before taxation	216,085	275,516	(59,431)
Current tax	(39,877)	(50,575)	10,698
Profit for the current year	176,208	224,941	(48,733)
Other comprehensive profits	-	-	-
Total comprehensive profits	176,208	224,941	(48,733)

2. BASIS OF PREPARATION (continued)

2.5. New standards and interpretations of published standards that have not yet been adopted

Until the date of these financial statements, certain new standards, amendments to existing standards and interpretations have been issued by the International Accounting Standards Board and the International Financial Reporting Interpretations Committee:

- **Amendments to IFRS 3 “Business Combinations”**

On October 22, 2018, the IASB issued amendments to IFRS 3 “Business Combinations” aimed at resolving difficulties encountered in determining whether a business or group of assets was acquired. The amendments are effective for business combinations for which the acquisition date is on or after the annual reporting period beginning on or after January 1, 2020.

- **IFRS 17: Insurance contracts**

The Standard is effective for annual periods beginning on or after 1 January 2021. Earlier application is permitted if IFRS 15 Revenues from Customer Agreement and IFRS 9 Financial Instruments have been applied. IFRS 17 Insurance contracts establish principles for recognition, measurement, presentation and disclosure of insurance contracts within the scope of the Standard. The purpose of IFRS 17 is to ensure that the entity provides relevant information that faithfully represents such contracts. These data provide the basis for the users of the financial statements to assess the effect of the insurance contract on the financial position, financial result and the cash flows of the entity. This interpretation has not yet been adopted in the European Union.

- **Amendments to the conceptual framework in International Financial Reporting Standards**

In addition to the revised 'Conceptual Framework' published in March 2018, the IASB has also issued 'Amendments to the Conceptual Framework References in IFRSs' effective for annual periods beginning on or after 1 January 2020.

- **Amendments to IAS 1 “Financial Statements” and IAS 8 “Accounting Policies, Changes in Accounting Estimates and Errors” - Defining Significance**

On 31 October 2018, the IASB issued amendments to IAS 1 and IAS 8 to clarify the definition of "materiality" and to align the definition used in the conceptual framework and standards themselves. The amendments shall enter into force for annual reporting periods beginning on or after 1 January 2020.

- **Amendments to IFRS 9, IAS 39 and IFRS 7 - Reforms of Reference Interest Rates - Phase 1**

On September 26, 2019, the IASB announced amendments to IFRS 9, IAS 39 and IFRS 7 "Reform of the Reference Interest Rate" as the first reaction to the potential effects of a reference interest rate reform on its financial statements. Comprehensive reform of benchmark rates is underway following concerns in recent years regarding the integrity and reliability of major financial market benchmarks. The amendments are effective for annual reporting periods beginning on or after 1 January 2020.

2. BASIS OF PREPARATION (continued)

2.5. New standards and interpretations of published standards that have not yet been adopted (continued)

- **Amendments to IAS 1 Presentation of Financial Statements - classification of liabilities**

On January 23, 2020, the IASB issued amendments to IAS 1 "Classification of Liabilities as Short or Long Term, providing a more general approach to classifying liabilities under IAS 1 under contractual arrangements at the reporting date. The amendments are effective for annual reporting periods beginning on or after 1 January 2022.

New standards, amendments to existing standards and interpretations of standards are not material to the Company's operations and will not have a material impact on the financial statements.

2.6. Use of estimates and judgments

The preparation of financial statements in accordance with IFRS requires Management to make judgments, estimates and assumptions that affect the applied policies and disclosed amount of assets and liabilities, revenue and expenses. The estimates and underlying assumptions are based on historical experience and various other factors that are considered to be reasonable in the circumstances, the results of which is starting point for estimating the carrying values of assets and liabilities that can not be obtained from other sources. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised if the revision affects only that period or in the period of revision and future periods if the revision affects both current and future periods.

Judgments made by Management in the application of IFRS that have significant effect on the financial statements and estimates with a high risk of materially significant corrections in the next periods are disclosed in Note 4.

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The principal accounting policies adopted in the preparation of these financial statements are set out below. These policies have been consistently applied by the Company to all periods presented in these financial statements.

3.1. Revenue recognition

The main activity of the Company is the management of the power system and transmission system of the Republic of Croatia with interconnected transmission systems, ie the distribution system in the Republic of Croatia.

In accordance with the new IFRS 15, the Company applies a five-step model for recognizing a customer agreement:

1. Establish a contract with the buyer,
2. Determine delivery obligations in the contract,
3. Determine the transaction price
4. Assign the transaction price to the contract delivery obligations
5. Recognize revenue when (or how) a subject fulfils the obligation to deliver

Revenue is recognized for each separate contract delivery obligation in the amount of the transaction price. The transaction price is the amount of contractual remuneration that the Company expects to be entitled to in return for the promise of the promised merchandise or customer service.

The new standard did not have a significant impact on the recognition of revenue from the fee for the use of the transmission network, ITC income, cross-border transmission capacity revenues and revenue from balancing or revenue recognition, at the same time as it was in force at IAS 18 Revenue. However, as explained below, it had a significant impact on the recognition of revenue from the connection due to substantially different revenue recognition treatment in relation to IFRIC 18 - Transfer of assets from the buyer that the Company applied to, January 1, 2018.

Revenue from use of transmission network fee

Since 2016, the Company's remuneration is based on energy sales data generated by customers, the Methodology for determining the tariff items for electricity transmission and the Decision on the amount of tariff items for the transmission of electricity by the Croatian Energy Regulatory Agency (HERA). In 2018 and 2019, the company recognizes revenue in the same way as in 2016. On December 13, 2018, HERA issued a Decision amending the tariff items for electricity transmission in 2019.

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

3.1. Revenue recognition (continued)

ITC Agreement Revenue

The Company, as a Transmission System Operator (TSO), signed an ITC Clearing and Settlement Agreement, under which it generates revenue as a compensation for losses incurred on transit of electric energy. Revenues generated by applying the ITC mechanism are determined on the basis of the methodology established by European Transmission System Operators (ETSO), pursuant to the Regulation (EC) No 1228/2003 of the European Parliament and of the Council on conditions for access to the network for cross-border exchanges in electricity.

Revenue from the cross-border transfer capacity

During 2019 and 2018, the bilateral and multilateral allocation of cross-border transmission capacities at the borders of the Republic of Croatia with adjacent transmission operators shall take place in accordance with the specific rules on allocation of cross-border transmission capacities, separately for one or more borders and in accordance with the rules on the use of cross-border transmission capacities regulating capacity utilization borders with neighbouring system operators.

Revenue from sales of balancing energy

From the 1 January 2017, the Company generates revenue from balancing and balancing energy services through the electricity sales to the Heads of Balance groups (VBGs) in accordance with the applicable Electricity Balancing Rules, the Methodology for determining the price for the balancing energy calculation, Discontinuance Liability Contracts signed with the Heads of Balance groups, and in accordance with a set of Auxiliary services contracts signed with HEP Proizvodnja d.o.o.

Revenues from connection fees - application of the new International Financial Reporting Standard 15 "Revenue from contracts with customers"

Until 1 January 2010 connection fees received from customers were deferred and recognized as revenue over the expected useful life of asset, i.e. connection fee, Such policy is still used for connection fees received before 1 January 2010.

As a result, since 1 July 2009 the connection fees received from customers are recognized as revenue when the customer is connected to the network or is provided with ongoing access to a supply of services.

At 1 January 2018 the International Financial Reporting Standard 15 has come into force (furthermore IFRS 15) Revenues from contract with customers which replaces IFRIC 18 related to the contract for transmission network connections. In accordance with IFRS 15, the network connection is considered to be a non-refundable network connection fee which is linked to the future network usage agreement and the electricity supply contract.

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

3.1. Revenue recognition (continued)

Consequently, the period of the revenue recognition from the connection fee is extended after the initial contractual period since the customer after the realization of the connection contract has acquired the right to use the transmission grid and electricity supply. Revenue should therefore be systematically allocated over the period of useful life of the constructed asset or transferred asset used for providing permanent services and the connection fees received from the customers recorded as deferred income and recognized as the income of the period at the same time as the depreciation of the assets (connection) to which it refers.

Since the mentioned provisions of the standard are a change of the current method of recognising the revenue from the connection fee and the return on revenue recognition before 2009 and the adoption of IFRIC 18, the standard requires retroactive application. Based on the above, as explained in Note 2.4. Company recognised the cumulative effect of the initial application of this Standard as an adjustments of the initial balance of the retained earnings, the deferred tax assets and the deferred income. Pursuant to the provisions of IFRS 15, given the inseparability between the connection contract and the electricity supply contract, for assets recognized under IFRIC 18 which have not yet been fully depreciated, retained earnings have been restated for the part of the revenue recognized at the time of the connection to the grid, which relates to the connections recorded in the period of 1 July 2009 till 31. December 2017.

Finance income

Finance income comprises interest income on funds invested, change of fair value on financial assets at fair value through profit and loss and foreign currency gains. Interest income is recognized on a time-proportion basis using the effective interest method. Dividend income is recognized when the right to receive payment is established.

Government aid

Government aid is recognized when there is sufficient assurance that the Company will satisfy the conditions required for it and that the aid will be received.

Government grants are recognized in the statement of comprehensive income on a systematic basis over the period in which the Company recognizes as expenses the related costs for which the grants are intended.

Government grants related to tangible assets that are depreciated are recognized in profit or loss in the periods and in the proportions in which the cost of depreciation of that asset is recognized.

Government grants related to non-depreciable assets are recognized in profit or loss through the periods in which the costs of meeting those obligations are borne, that is, through the expected useful life of the asset.

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

3.2. Transactions and balances in foreign currency

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies at the reporting date are translated to the functional currency at the exchange date. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognized in profit or loss.

Non-monetary assets and items that are measured based on historical cost in a foreign currency are not translated using new exchange rates. Non-monetary assets and liabilities that are measured based on a historical cost in a foreign currency are translated using the exchange rate at the date of transaction.

3.3. Leases

The Company does not have finance lease agreements with third parties. Leases where the significant portion of risks and rewards of ownership are not retained by the Company are classified as operating leases.

Accounting policies in effect from 1 January 2019

All leases are accounted for by the recognition of eligible assets and lease liabilities except for:

- Leases of small value; and
- Leases whose rental period ends within a period of 12 months from the date of first application or shorter.

The lease obligation is recognized at the present value of the contractual future payments to the lessor over the term of the lease, discounted at a discount rate determined in relation to the lease rate unless it is easy to determine, in which case the Company's incremental borrowing rate at the beginning of the lease is used. Variable lease payments are included in the calculation of lease obligations only if they depend on the index or rate. In this case, the initial calculation of the lease obligation assumes that the variable element will remain unchanged for the duration of the lease. Other variable lease payments represent an expense in the period to which it relates.

At the date of initial recognition, the carrying amount of the lease liability includes:

- amounts expected to be paid by the lessee based on guarantees for the remainder of the value;
- the cost of executing the purchase option if it is certain that the lessee will exercise the option; and
- Payment of termination fees if the rental period reflects that the lessee will take advantage of the option to terminate the lease.

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

3.3. Leases (continued)

The eligible property is initially measured at the amount of the lease obligation, less any lease incentives received, and is increased by:

- All lease payments made on or before the rental start date;
- all initial direct costs; and
- the amount of the reservation recognized when the Company contractually bears the costs of dismantling, removing or rebuilding the site of the property.

After the initial measurement, the lease liability increases to reflect interest on the lease obligation and decreases to reflect the rent paid. Useful property is reduced by accumulated depreciation calculated on a straight-line basis over the lease term, or the remaining economic life of the property, if it is considered to be less than the lease term. The lease liability is subsequently measured when there is a change in future lease payments resulting from a change in the index or rate, or when there is a change in the estimate of the term of any lease.

Operating lease payments are recognized through profit or loss on a straight-line basis over the term of the lease. Operating lease payments are recognized in the statement of comprehensive income on a straight-line basis over the lease term.

3.4. Intangible assets

Non-current intangible assets include software and leasehold improvements regarding rights of usage and are capitalised to the extent that future economic benefits are probable and will flow to the Company. Subsequent expenditure on capitalised intangible assets is capitalised only if it is probable that it increases the future economic benefits embodied in the specific asset to which it relates and those benefits will flow to the Company. All other expenditure is recognised in the profit or loss as an expense as incurred.

Amortisation is charged to profit or loss on a straight-line basis over the estimated useful lives of intangible assets. Intangible assets are amortised from the date on which they are available for use.

The estimated useful lives of intangible assets are as follows:

Software	5 years
Leasehold improvements regarding rights of usage	25 years

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

3.5. Property, plant and equipment

Property, plant and equipment are carried at cost less accumulated depreciation and any accumulated impairment losses. Cost includes the purchase price and directly associated cost of bringing the asset to a working condition for its intended use.

Assets under construction are not depreciated. Depreciation of buildings, plant and equipment is calculated using the straight-line method to allocate their cost over their estimated useful lives as follows:

Buildings (real estate and construction elements of buildings and facilities for the transmission of electricity)	10-40 years
Equipment (plant equipment and facilities for the transmission of electricity)	5-40 years
Other equipment (office equipment and data centres, furniture and motor vehicles)	5-20 years

The estimated useful life is reviewed at each reporting date and adjusted if appropriate. If the carrying amount of the asset exceeds the estimated recoverable amount, the difference is written off to the recoverable amount.

Gains and losses on disposals are determined as the difference between the income from the disposal and the carrying amounts of the asset disposed, and are recognised in profit or loss within other income/expenses.

Subsequent expenditure is included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Company and the cost of the item can be measured reliably. The carrying amount of the replaced part is derecognized. All other repairs and maintenance are charged to the Statement of comprehensive income during the financial period in which they are incurred. In situations where it can be clearly demonstrated that the expenditures have resulted in an increase in the future economic benefits expected to be obtained from the use of an item of property, plant and equipment beyond its originally assessed standard performance, the expenditures are capitalised as an additional cost of property, plant and equipment. Costs eligible for capitalization include costs of periodic, pre-planned significant inspections and overhauls necessary for further operation.

Borrowing costs that can be directly linked to the acquisition, construction or construction of a qualifying asset, which is an asset that necessarily takes considerable time to be ready for its intended use or sale, are credited to the acquisition cost of that asset until it is largely ready for intended use or sale.

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

3.6. Impairment of non-financial assets

At each reporting date, the Company reviews the carrying amounts of its non-financial assets (apart from inventory and deferred tax assets which are separately reviewed) to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss (if any). Where it is not possible to estimate the recoverable amount of an individual asset, the Company estimates the recoverable amount of the cash-generating unit to which the asset belongs. Where a reasonable and consistent basis of allocation can be identified, corporate assets are also allocated to individual cash-generating units, or otherwise they are allocated to the smallest group of cash-generating units for which a reasonable and consistent allocation basis can be identified.

Intangible assets with indefinite useful lives and intangible assets not yet available for use are tested for impairment annually, and whenever there is an indication that the asset may be impaired.

Recoverable amount is the higher of fair value less costs to sell and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted.

If the recoverable amount of an asset (or cash-generating unit) is estimated to be less than its carrying amount, the carrying amount of the asset (or cash-generating unit) is reduced to its recoverable amount. An impairment loss is recognised immediately in profit or loss, unless the relevant asset is carried at a revalued amount, in which case the impairment loss is treated as a revaluation decrease.

Where an impairment loss subsequently reverses, the carrying amount of the asset (or cash-generating unit) is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined net of depreciation or amortisation had no impairment loss been recognised for the asset (or cash-generating unit) in prior years. A reversal of an impairment loss is recognized immediately in profit or loss, unless the relevant asset is carried at a revalued amount, in which case the reversal of the impairment loss is treated as a revaluation increase.

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

3.7. Investment property

Investment property comprises properties held to earn rentals or for capital appreciation, or both. Inbuilt equipment is considered part of the investment property. Cost includes all expenditure directly related to the acquisition of the asset. Investment property under construction is classified as non-current tangible assets until it is ready for use. Investment property is measured initially at cost, including transaction costs. Subsequent to initial recognition, investment property is measured at fair value. Gains and losses arising from changes in the fair value of investment properties are included in profit or loss in the period in which they arise.

Costs of replacing an item of property investment are recognized in the carrying amount of this asset if it is probable that the future economic benefits included in that item will flow to the Company and their value can be measured reliably. The costs of regular maintenance of real estate investments are recognized in the income statement as they arise.

An investment property is derecognised upon disposal or when the investment property is permanently withdrawn from use as well as when no future economic benefits are expected from the disposal. Any gain or loss arising on derecognition of the property (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is included in profit or loss in the period in which the property is derecognized.

3.8. Investments in associates

(i) Subsidiaries

Subsidiaries are all companies (including special purpose companies) over which the Company has control over financial and business policies, which normally includes more than half of the voting rights. The existence and the effect of potential voting rights that can be used or replaced are considered when assessing whether the Company has control over another business entity. Investments in subsidiaries are initially recognized at cost and subsequently at cost less impairment. Testing of investments in subsidiaries for impairment is carried out on an annual basis (accounting policy 3.13).

(ii) Associates

Associates are all entities over which the Company has significant influence but not control, generally accompanying a shareholding of between 20% and 50% of the voting rights. Investments in associates are accounted for initially at cost and subsequently at cost less impairment losses. Investments in associates are tested annually for impairment (accounting policy 3.13).

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

3.9. Inventories

Inventories comprise mainly electro materials, spare parts for electro material and low value items and are carried at the lower of cost, determined using the weighted average price less allowance for obsolete inventories and the net realisable value. Cost comprises the invoiced amount as well as all other costs directly attributable to bringing inventories to their present location and condition in which they are readily available for use. Net realisable value is the estimated selling price in the ordinary course of business, less applicable variable selling expenses.

The Management adjusts the value of inventory based on a review of the overall ageing structure of inventories, as well as of individual significant amounts of inventories. Low value items and tools are expensed when put into use.

3.10. Cash and cash equivalents

Cash and cash equivalents comprise cash in hand, deposits held at call with banks and other short-term highly liquid instruments with original maturities of three months or less.

3.11. Employee benefits

(i) Pension obligations and post-employment benefits

In the normal course of business through salary deductions, the Company makes payments to the mandatory pension funds on behalf of its employees as required by law. All contributions made to the mandatory pension funds are recorded as salary expense when incurred. The Company is not obliged to provide any other post-employment benefits with respect to these pension schemes.

This obligation applies to all staff hired on the basis of employment contract. The contributions are paid at a certain percentage determined on the basis of gross salary. Contributions on behalf of the employees and the employer are accounted for as the expense for the period in which they arise (see Note 10).

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

3.11. Employee benefits (continued)

(ii) Termination benefits

Termination benefits are payable when employment is terminated by the Company before the normal retirement date, or whenever an employee accepts voluntary redundancy in exchange for these benefits. The Company recognises termination benefits as expenses when it is demonstrably committed to either: terminating the employment of current employees according to a detailed formal plan without possibility of withdrawal; or providing termination benefits as a result of an offer made to encourage voluntary redundancy.

(iii) Provisions for regular retirement benefits

Retirement benefits falling due more than 12 months after the reporting date are discounted to their present value based on the calculation performed at each reporting date by an independent actuary, using assumptions regarding the number of staff likely to earn regular retirement benefits, estimated benefit cost and the discount rate which is determined as average expected rate of return on investment in government bonds of the Republic of Croatia which are quoted on the market and their currency and maturity dates are in accordance with currency and estimated duration of liabilities for the benefit payment. Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are recognised immediately in profit or loss.

(iv) Regular retirement benefits

Under current Collective Agreement (effective from 1 January 2018), employees are entitled to a retirement benefit to the extent of 1/8 of the average gross monthly salary earned in the period of three months prior to the retirement for each completed year of continuous employment at the employer. This Collective Agreement was valid until 31 December 2019.

(v) Long-term employee benefits

The Company recognises a liability for long-term employee benefits (jubilee awards) evenly over the period the benefit is earned based on actual years of service. The long-service benefits range from HRK 1,500 to HRK 5,500 net and are provided for a discontinued tenure from 10 to 45 years. The long-term employee benefit liability is determined annually by an independent actuary, using assumptions regarding the likely number of staff to whom the benefits will be payable, estimated benefit cost and the discount rate which is determined as the average expected rate of return on investment in government bonds. Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are recognised immediately in profit or loss.

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

3.11. Employee benefits (continued)

(vi) Short-term employee benefits

The Company recognises a liability for employee bonuses where contractually obliged or where there is a past practice that has created a constructive obligation.

3.12. Provisions

Provisions are recognized when the Company has a present obligation (legal or constructive) as a result of a past event and it is probable (i.e. more likely than not) that an outflow of resources will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation. Provisions are reviewed at each reporting date and adjusted to reflect the current best estimate. Where the effect of discounting is material, the amount of the provision is the present value of the expenditures expected to be required to settle the obligation, determined using the estimated risk free interest rate as the discount rate. Where discounting is used, the reversal of such discounting in each year is recognized as a financial expense and the carrying amount of the provision increases in each year to reflect the passage of time.

3.13. Financial assets

The Company has adopted IFRS 9 - Financial Instruments as at 1 January 2018 and its application has not had a significant impact on the Company's financial statements.

The Company recognizes financial assets in its financial statements when it becomes party to the contractual provisions of the instrument. Depending on the business model for asset management and contractual features of financial flows, the Company measures financial assets at amortized cost, fair value through other comprehensive income or fair value through profit or loss.

The Company classifies assets as shown below:

DESCRIPTION	Classification / Measurement
Non-current assets	
Financial assets through other comprehensive income	Equity instruments / The fair value through other comprehensive income
Loans given	Hold to collect / amortized cost
Current assets	
Cash and cash equivalents (deposits)	Hold to collect / amortized cost
Receivables from customers and others Claims	Hold to collect / amortized cost

The Company's business models reflect the way in which the Company manages assets, with the aim to generate cash flows.

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

3.13. Financial assets (continued)

The business model reflects the way in which the Company manages assets to generate cash flows - whether the Company's objective is (i) solely the collection of contractual cash flows from assets ('holding due to contractual cash flows') or (ii) cash flows and cash flows arising from the sale of assets ('hold due to contractual cash flows and sales') and if none of the above items is applicable, financial assets are classified as part of another business model and are measured at fair value through profit or loss.

i) Financial assets through other comprehensive income

Initial Recognition

The Company recognize a financial asset or liability when and only when it becomes a party to the contractual provisions of the instrument. The Company initially recognizes financial assets at fair value plus transaction costs that can be attributed directly to the acquisition or issue of a financial asset. Equity instruments include strategic investments. Valuation of equity instruments is measured through other comprehensive income (FVOCI) without subsequent reclassification to the profit or loss. The reason for this is that in strategic investments, priority is not the short-term maximum increase in profits. Acquisition and sales of strategic investments are based on business policy considerations. Dividends are recognized in the profit or loss if they do not represent repayment of principal.

Subsequent measurement

After initial recognition, the Company measures financial assets at fair value through other comprehensive income.

ii) Loans

Company loans are held within a business model whose purpose is to hold a financial asset in order to collect contractual cash flows. Contractual terms at a particular date are cash flows that represent only payments of principal and interest. At that, the principal is the fair value of the asset at initial recognition.

Based on the above, the given loans were measured at amortized cost.

Measurement at amortized cost implies the following:

- Interest revenue is calculated by using the effective interest method to the gross carrying amount of a financial asset.

iii) Accounts receivables

Receivables from customers that do not have a significant financial component at initial recognition have been measured in accordance with IFRS 15 at their transaction price.

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

3.13. Financial assets (continued)

iv) Impairment

The Company recognizes a loss allowance for expected credit losses. At each reporting date, the Company measures expected credit losses and recognizes the same in the financial statements.

Expected credit losses from financial instruments are measured in a manner that reflects:

- an unbiased and probability-weighted amount that is determined by evaluating a range of possible outcomes
- Time value of money
- Reasonable and supportable information about past events, current conditions and forecasts of future economic conditions

Regarding trade receivables, the Company applies a simplified approach allowed by IFRS 9 to measure expected credit losses by using expected provisions for credit losses.

To measure anticipated trade receivables losses, the Company has by analysing the age structure and historical data determined potential future losses

By analysing the age structure, it has been determined that the Company does not have significant due receivables, the most significant part of the receivables is not due for payment so the Company estimates that it will be fully collected. No significant credit losses have been identified.

v) Derecognition of the financial assets

The Company ceases to recognize financial assets when:

- the contractual rights to the cash flows from the financial asset expire
- it transfers the financial asset and the transfer qualifies for derecognition

The Company transfers a financial asset if, and only if, it either

- a) transfers the contractual rights to receive the cash flows of the financial asset, or
- b) retains the contractual rights to receive the cash flows of the financial asset, but assumes a contractual obligation to pay the cash flows to one or more recipients in an arrangement

When the Company transfers a financial asset, it shall evaluate the extent to which it retains the risks and rewards of ownership of the financial asset. In this case when substantially all the risks and rewards of ownership of the financial asset are transferred, the Company derecognize the financial asset and recognize separately as assets or liabilities any rights and obligations created or retained in the transfer.

If the Company neither transfers nor retains substantially all the risks and rewards of ownership of the financial asset, it has to determine whether it has retained control of the financial asset.

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

3.13. Financial assets (continued)

If the Company has not retained control, it derecognise the financial asset and recognise separately as assets or liabilities any rights and obligations created or retained in the transfer.

If the Company has retained control, it continues to recognise the financial asset to the extent of its continuing involvement in the financial asset.

3.14. Financial liabilities

Initial recognition and measurement

Financial liabilities are classified as financial liabilities that are measured at amortized cost. All financial liabilities are initially recognized at fair value plus the associated transaction costs. The Company's financial liabilities include liabilities to suppliers and other liabilities, overdrafts and loans.

Subsequent measurement

After initial recognition, interest-bearing loans and loans are subsequently measured at amortized cost using the effective interest rate method.

Borrowing costs that can be directly linked to the acquisition, construction or production of a qualifying asset, that necessarily requires a considerable amount of time to be ready for intended use or sale, are attributed to the cost of purchasing that asset, until the asset is available to use or sale. Borrowings are classified as short-term liabilities, unless the Company has the unconditional right to postpone the obligation to pay at least 12 months after the reporting date. Short-term lending and supplier loans are shown on the original borrowed amount deducted for repayments. The interest expense is charged to the profit and loss account for the period to which the interest relates.

Derecognition

The Company ceases to recognize the liability in the financial statements when, and only when, it is extinguished. In case when existing financial liability is replaced with new financial liability with substantially different terms or a substantial modification of the terms of an existing financial liability it is accounted for as an extinguishment of the original financial liability and the recognition of a new financial liability and the difference between the carrying amounts is recognized in the profit and loss.

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

3.15. Subscribed capital and capital reserves

Subscribed capital is stated in Croatian kuna at nominal value. Capital reserves are formed in accordance with the Companies Act and the Articles of association of the Company, based on cash payment and contribution in kind by the owner.

3.16. Dividends

Dividend distribution to the Company's owner is recognised as a liability in the financial statements in the period in which the dividends are approved by the Company's General Assembly.

3.17. Accounting presentation lease – Company as a lessee

Leases of assets where the Company accepts almost all benefits and risks of ownership are classified as finance leases. Finance leases are capitalized at the estimated present value of the related lease payments. Each lease payment is allocated between the liability and finance charges so as to achieve a constant rate on the balance outstanding. Corresponding obligation for rent, net of financial expenses is recorded within the long-term liabilities. The interest element of the finance costs is charged to profit or loss over the lease period.

3.18. Taxation

i) Income tax

Income tax expense comprises current and deferred tax. Income tax expense is recognised in profit or loss except to the extent that it relates to items recognised directly in equity, in which case it is recognised in other comprehensive income.

Current tax is the expected tax payable on the taxable income for the year, using tax rates enacted or substantively enacted at the reporting date, and any adjustment to tax payable in respect of previous years. Taxable profit differs from profit as reported in the income statement because it excludes items of income or expense that are taxable or deductible in other years and it further excludes items that are never taxable or deductible. The Company's liability for current tax is calculated using tax rates that have been enacted or substantively enacted by the balance sheet date.

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

3.18. Taxation (continued)

ii) Deferred tax assets and liabilities

Deferred tax is recognized using the balance sheet method, providing for temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred tax is not recognised for the following temporary differences: the initial recognition of goodwill, the initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable profit and differences relating to investments in subsidiaries and jointly controlled companies when it is probable that their status will not change in the near future. Deferred tax is measured at the tax rates that are expected to be applied to the temporary differences when they reverse, based on the laws that have been enacted or substantively enacted by the reporting date.

A deferred tax asset is recognised to the extent that it is probable that future taxable profits will be available against which temporary difference can be utilized. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the related tax benefit will be realized.

Deferred tax assets and liabilities are offset if there is a legally enforceable right to offset current tax liabilities and assets, and they relate to taxes levied by the same tax authority on the same taxable entity, or on different tax intend to settle current tax liabilities and assets on a net basis or their tax assets and liabilities will be realised simultaneously.

The carrying amount of deferred tax assets is reviewed at each balance sheet date and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

iii) Tax exposures

In determining the amount of current and deferred tax, the Company takes into account the impact of uncertain tax positions and whether additional taxes and interest may be due. This assessment relies on estimates and assumptions and may involve a series of judgments about future events, New information may become available that causes the Company to change its judgment regarding the adequacy of existing tax liabilities; such changes to tax liabilities will impact tax expense in the period that such a determination is made.

4. KEY ACCOUNTING JUDGEMENTS AND ESTIMATES

During the preparation of the Company's annual financial statements, the Management Board used certain estimates and assumptions that affect disclosed income, expense, assets and liabilities and disclosure of contingent liabilities during and on the reporting date. However, the uncertainty associated with these assumptions and estimates can result in significant changes in the carrying amount of the related assets or liability in future periods. Key assumptions related to the future and other key sources of uncertainty on the date of the Statement of financial position that bear significant risk of significant changes in the carrying amounts of assets and liabilities in the following financial year are as follows:

The preparation of financial statements in accordance with IFRS requires Management to make judgments, estimates and assumptions that affect the application of policies and reported amounts of assets and liabilities, income and expenses. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised if the revision affects only that period or in the period of revision and future periods if the revision affects both current and future periods.

i) Useful lives of property, plant and equipment

Determining the useful life of an asset is based on historical experience with similar assets as well as anticipated technological development. The suitability of the estimated useful life is considered annually, or whenever there are indications of significant changes in assumptions. We believe that this is an important accounting estimate, as it includes the assumptions about technological development and significantly depends on the Company's investment plans. Furthermore, given the significant share of a depreciable assets in total Company's assets, the impact of major changes in these assumptions could be significant for the financial position and results of the Company's business. During the 2019 there were no changes to estimated useful lives of property, plant and equipment, i.e., the depreciation rates.

ii) Recognition of deferred tax assets

The net deferred tax asset represents income taxes recoverable through future deductions from taxable profits and is recorded in the Statement of financial position. Deferred tax assets are recorded to the extent that realisation of the related tax benefit is probable. In determining future taxable profits and the amount of tax benefits that are probable in the future, management makes judgments and applies estimation based on previous years taxable profits and expectations of future income that are believed to be reasonable under the existing circumstances (Note 15). The carrying amounts of deferred tax assets at 31 December 2019 amounts to HRK 42,545 thousand (31 December 2018: HRK 46,964 thousand).

iii) Recoverability of trade and other receivables

The recoverable amount of trade and other receivables is estimated at present value of future cash flows discounted at the market interest rate at the measurement date. Short-term receivables with no stated interest rate are measured by the amount of original invoice if the effect of discounting is not significant.

4. KEY ACCOUNTING JUDGEMENTS AND ESTIMATES

iv) Valuation of inventories

The Company provides for the amount of unmarketable inventory materials according to the inventory ageing structure. During 2019 the Company recognised value adjustment of inventories in the amount of HRK 714 thousand. In 2018, the Company increased the value adjustment of inventories by 1,632 thousand charged to operating expenses (see Note 12 and 24).

v) Actuarial estimates used in determining the retirement bonuses

The cost of defined benefits is determined using actuarial estimates. Actuarial estimates involve assumptions about discount rates, future salary increases and the mortality or fluctuation rates. Due to the long-term nature of those plans, these estimates contain an element of uncertainty. Provisions for jubilee awards and retirement bonuses amounted to HRK 58,111 thousand at 31 December 2019 (31 December 2018: HRK 48,355 thousand) (see Note 31).

vi) Consequences of certain legal actions

There are a number of legal actions involving the Company, which have arisen from the regular course of operations. If there is a present obligation as a result of a past event (taking into account all available evidence, including the opinion of law experts) for which is probable that outflow of resources will be required to settle the obligation and if a reliable estimate can be made of the amount of the obligation, provisions are recorded.

vii) Ownership over land and buildings

The Company has acquired or is in the process of acquiring documentation of ownership over certain land and buildings. Restrictions on the ownership over land and buildings relate to properties that are not officially registered as the property of the Company. The Company is involved in several legal disputes regarding the ownership over certain real estates, however management believes that the outcome of these legal disputes will result in the Company obtaining all relevant documents relating to ownership over properties recorded in its accounts.

4. KEY ACCOUNTING JUDGEMENTS AND ESTIMATES (continued)

viii) *Expected loss model*

With the application of IFRS 9, the model of expected loss (ECL) is introduced. The measurement of expected loss on impairment is based on reasonable and supporting information that is available without undue expense, and which includes information on past events, current and foreseeable future conditions and circumstances.

When estimating the expected future value of impairment, historical probabilities of non-fulfilment are usually used complementing future parameters relevant to credit risk.

The most significant part of the Company's financial assets relate to the receivables from related parties (HEP Distribution System Operator Ltd., Zagreb for the use of the transmission grid and the Hrvatska elektroprivreda d.d., Zagreb for balancing energy), trade receivables, investments in deposits and cash.

Accounts receivables are stated at the invoiced amount. The impairment of doubtful receivables is based on the best estimate of the Company's Management Board on the non-repayment. All receivables from bankruptcy entities as well as sued receivables are wholly written off. The Company's management performs impairment of the doubtful receivables based on an overview of the overall ageing structure of all receivables and on the basis of a review of significant individual amounts included in the receivables. Due to the likelihood that some receivables will not be collected over a longer period, the Company, on the basis of reasonable estimates and experience gained over a longer period, performs the value adjustment of uncollected receivables by reducing them in the following way:

Due	Impairment percentage
31 — 60 days	1,50%
61 — 90 days	3%
90 — 180 days	9%
181 — 365 days	30%
Over a year	90%

The general approach to the expected credit losses applies to the equity instruments measured through other comprehensive income. A simplified approach to expected credit losses applies to the trade receivables, which results in earlier recognition of impairment. By applying a simplified approach to financial assets and by reducing the value of the contract assets which is recognized as of 1 January 2018 in accordance with IFRS 9 (International Financial Reporting Standard 9), the impairment will have no significant impact on the Company's result.

4. KEY ACCOUNTING JUDGEMENTS AND ESTIMATES (continued)

ix) Expected loss model (continued)

The analysis of receivables and related value adjustments has shown significant receivables in the coming years. Historically, these trends are stable and there are no known facts or indications that the trend will change in future periods. Historical data show that receivables from related companies are fully collectable and are not subject to impairment. During the reporting period there were no changes in the initial estimation methods or significant assumptions that were used. There were no significant changes in the carrying value of financial instruments during the reporting period, and thus no significant impact on the amount of value adjustment.

x) Revenues from the ITC Agreement

The estimated revenues from the ITC mechanism relate to the Company's estimated revenue for the part of 2019 as they are not charged in the current year. The estimate is made as the medium value of historical data and data on the ratio of realized transit and import of electricity as well as revenues realized in the previous period of 2019 for which similar conditions were applicable.

5. DETERMINING FAIR VALUES

A number of the Company's accounting policies and disclosures require the measurement of fair values, for both financial and non-financial assets and liabilities.

The Company has an established control framework with respect to fair value measurement which assumes the overall responsibility of the Management Board and finance department in relation to the monitoring of all significant fair value measurements, consultation with external experts and the responsibility to report, with respect the above, to those charged with corporate governance.

Fair values are measured using information collected from third parties in which case the Board and the finance department assess whether the evidence collected from third parties support the conclusion that such valuations meet the requirements of IFRSs, including the level in the fair value hierarchy where such valuations should be classified.

All significant issues related to fair values estimates are reported to the Supervisory Board. Fair values are categorised into different level in a fair value hierarchy based on the inputs used in the valuation techniques as follows:

- *Level 1* - quoted prices (unadjusted) in active markets for identical assets or liabilities
- *Level 2* - inputs other than quoted prices included in level 1, that are observable for the asset or liability either directly (ie as prices) or indirectly (ie derived from prices)
- *Level 3* - input variables for assets or liabilities that are not based on observable market data (unobservable inputs)

The fair value of financial instruments traded in active markets is based on quoted market prices at the balance sheet date. A market is regarded as active if quoted prices are readily and regularly available from an exchange, dealer, broker, industry group, or regulatory agency, and those prices represent actual and regularly occurring market transactions on an arm's length basis.

The fair value of financial instruments that are not traded in an active market (for example, over-the-counter derivatives) is determined by using valuation techniques. These valuation techniques maximize the use of observable market data where it is available and rely as little as possible on entity specific estimates. If one or more significant inputs are not based on observable market data, the fair value estimate is included in level 3.

In preparing these financial statements, the Company has made the following significant fair value estimates statements as further explained in detail in following notes:

- Note 20: Investment property

6. REVENUE FROM SALES

(in thousands of HRK)

	2019	2018
Revenue from sales – related parties		
Electricity transmission income	1,310,804	1,338,804
Sales of balancing energy	25,118	38,160
Sales of balancing energy – imbalance settlement	90,023	66,756
Income from connection to transmission network	2,926	664
Other	22,771	21,603
	1,451,642	1,465,987
Revenue from sales – third parties		
Electricity transmission income	59,885	68,757
Cross-border transmission capacity - foreign	103,165	111,825
Sales of balancing energy	4,738	7,864
Sales of balancing energy - imbalance settlement	56,413	21,089
ITC revenue	8,066	37,140
Income from connection to transmission network	93	2,275
Sales from energy for transmission grid losses	1,943	201
	234,303	249,151

7. OTHER INCOME – THIRD PARTIES

(in thousands of HRK)

	2019	2018
Reversal of litigation provisions (Note 31)	799	1,376
Reversal of retirement provisions (Note 31)	-	1,973
Reversal of unused holidays provisions	-	662
Consumption of own products and services	5,913	4,954
Income from assets received free of charge	2,831	2,930
Income from connection asset – IFRS 15	17,350	13,418
Nonstandard services income	369	383
Collection of written-off receivables income	909	2,139
Other services income	173	282
EBRD grant income	1,584	6,555
Value adjustment – financial assets (Note 21)	1,909	
Other	7,355	4,863
	39,192	39,535

Income from consumption of own products and services refers to capitalized personnel expense connected to assets under construction (work of Company's supervising engineers).

Other income refers to a sale of previously written off assets as a secondary raw material in the amount of HRK 2,748 thousand (2018: HRK 1,913 thousand), rent income HRK 470 thousand (2018: HRK 462 thousand), and other HRK 4,311 thousand (2018: HRK 2,488 thousand).

8. MATERIAL AND SPARE PARTS USED

<i>(in thousands of HRK)</i>	2019	2018
Maintenance material for power facilities	7,209	5,685
Energy	5,450	5,330
Maintenance material for other assets	780	945
Low value stock and safety clothes	1,650	1,669
Other	2,763	2,856
	17,852	16,485

9. SERVICE EXPENSES

<i>in thousands of HRK)</i>	2019	2018
Power facility maintenance services	90,951	97.190
Auctions for cross border transmission capacity	31,926	35.634
ITC mechanism costs	8,594	1.118
Security services	4,945	4.823
Maintenance services	7,598	7.353
Telecommunication services	1,682	1.571
Agency and research services	16,839	12.444
Research and development cost	5,070	9,743
Other	10,879	8,478
	178,484	178,354

In 2019, part of the agency and scientific services costs related to the fees for the audit of the annual financial statements for 2018 in the amount of HRK 104 thousand, fees for other audit services in the amount of HRK 70 thousand, fees for tax and other consulting services in the amount HRK 304 thousand.

10. PERSONNEL EXPENSES

(in thousands of HRK)

	2019	2018
Net salaries	122,502	111,679
Taxes and contributions from salaries	53,048	47,430
Contributions on salaries	26,451	25,781
	202,001	184,890

Total personnel costs were as follows:

Gross salaries	202,001	184,890
Reimbursement of costs to employees (Note 12)	19,793	17,335
Employee benefits (Note 12)	12,733	16,838
Additional health insurance costs (Note 12)	1,636	1,550
Provisions for retirement bonuses and other provisions (Note 12)	7,966	33,403
	244,129	254,016

As of 31 December 2019 the Company had 1,218 employees (2018: 1,123 employees), Reimbursement of costs to employees includes commutation allowances, daily allowances and travelling expenses, as well as other similar costs.

Employee benefit costs primarily include retirement bonuses, jubilee awards and other occasional bonuses, Early retirement bonuses in 2019 amounted to HRK 1,941 thousand (2018: HRK 8,858 thousand), and represent retirement bonuses for 19 employees.

Directors' and executive's remuneration:

(in thousands of HRK)

	2019	2018
Gross salaries	5,772	4,695
Pension insurance contributions	1,305	1,055
Benefits in kind	838	863
	7,915	6,613
Number of directors and executives	18	18

10. PERSONNEL EXPENSES (CONTINUED)

Supervisory board remuneration :

<i>(u tisućama kuna)</i>	2019.	2018.
Gross salaries	66	79
Pension insurance contributions	7	8
Benefits in kind	3	6
	<u>76</u>	<u>93</u>
Number of Supervisory board members	5	4

11. ANCILLARY SERVICE COST, TRANSMISSION GRID LOSSES AND PURCHASE OF BALANCING ENERGY

<i>(in thousands of HRK)</i>	2019	2018
<i>Ancillary services</i>		
Ancillary services – related parties (Note 35)	317,647	293.859
Ancillary services – third parties	7,695	531
	<u>325,342</u>	<u>294.390</u>
<i>Cost of transmission grid losses</i>		
Cost of transmission grid losses – related parties (Note 35)	129,556	125.460
Cost of transmission grid losses – third parties	44,752	51.848
	<u>174,308</u>	<u>177.308</u>
<i>Purchase of balancing energy</i>		
Purchase of balancing energy – related parties HEP Proizvodnja d.o.o. (Note 35)	99,724	105.684
Purchase of balancing energy – imbalance settlement – related parties (Note 35)	12,895	27.861
Purchase of balancing energy – third parties	4,900	35.832
Purchase of balancing energy – imbalance settlement – third parties (Note 35)	9,809	7.908
	<u>127,328</u>	<u>177.284</u>

During 2018 and 2019, the Company purchased energy for Transmission Grid losses and for Balancing System on the Electricity Exchange, which began operating in February 2016.

12. OTHER OPERATING EXPENSES

<i>(in thousands of HRK)</i>	2019	2018
Employee benefits	12,733	16,838
Taxes, contributions and fees	19,920	20,167
Reimbursement of costs to employees	19,793	17,335
Impairment of inventories (Note 24)	714	1,632
Net book value of disposed tangible assets and inventories	9,522	9,123
Impairment of receivables (Note 25)	15	-
Additional health insurance costs	1,636	1,550
Affiliation fee for business associations	3,795	3,835
Insurance premiums	1,127	1,395
Provisions for retirement bonuses and other provisions for workers	7,966	33,403
Provisions for court cases (Note 31)	24,902	399
Provisions for unused holidays	1,626	
Change in fair value of investment properties	9,522	-
Fees damage to individuals	1,428	1,359
Impairment of financial assets	-	1,409
Other operating expense	6,463	3,670
	121,162	112,115

13. FINANCE INCOME

<i>(in thousands of HRK)</i>	2019	2018
Interest income	141	581
Foreign exchange gains	1,373	8,493
	1,514	9,074

14. FINANCE COSTS

<i>(in thousands of HRK)</i>	2019	2018
Sub-loan interest	20,880	21,677
Penalty interest	40	52
Foreign exchange losses	2,884	1,716
Interest for lease – IFRS 16	165	-
Amortized amount of the related discount cost	876	876
	24,845	24,321

15. CURRENT INCOME TAX

The Company is subject to income tax, according to the laws and regulations of the Republic of Croatia. The tax base is determined as the difference between income and expenses for the period, increased by tax non-deductible expenses. The income tax rate is 18% (2018: 18%).

<i>(in thousands of HRK)</i>	2019	2018
Current tax	28,820	45,535
Deferred tax	4,419	(5,658)
	33,239	39,877

<i>(in thousands of HRK)</i>	2019	2018
Profit before taxation	165,391	216,085
Income tax at the rate of 18%	29,770	38,895
Tax differences, non-deductible expenses	3,860	1,226
Tax differences, depreciable item	(391)	(244)
Tax cost	33,239	39,877
Effective tax rate (%)	20,10%	18,45%

Under tax regulations, the tax authorities may at any time inspect the books and records of the companies within three years from the expiry of the year for which the tax liability is declared, as well as impose additional tax liabilities and penalties. The management of the Company is not aware of any circumstances that could result in significant potential liabilities in this respect.

15. CURRENT INCOME TAX (continued)

The following table summarizes the movement in deferred tax assets during the year:

<i>(in thousands of HRK)</i>	Provision for inventory	Provisions for jubilee and retirement benefits	Accrued expenses	Depreciation of large spare parts	First adoption of IFRS 15	Impairment of financial assets and investment property	Total
At 31 December 2017	3,173	9,538	1,351	6,553	-	2,246	22,861
First adoption – IFRS 15	-	-	-	-	18,445	-	18,445
(Credited)/ debited to profit and loss	294	(355)	5,205	993	(732)	253	5,658
At 31 December 2018	3,467	9,183	6,556	7,546	17,713	2,499	46,964
(Credited)/ debited to profit and loss	129	1,756	(5,970)	851	(841)	(344)	(4,419)
At 31 December 2019	3,596	10,939	586	8,397	16,872	2,155	42,545

16. INTANGIBLE ASSETS

<i>(in thousands of HRK)</i>	Software	Leasehold improvement regarding rights of usage	Total
COST			
At 1 January 2018	67,191	18,566	85,757
Additions	7,759	-	7,759
Transfer from assets under construction	306	-	306
Disposals and write-offs	(209)	-	(209)
At 31 December 2018	75,047	18,566	93,613
Additions	771	-	771
Transfer from assets under construction	29,804	-	29,804
Disposals and write-offs	(1,662)	-	(1,662)
At 31 December 2019	103,960	18,566	122,526
ACCUMULATED DEPRECIATION			
At 1 January 2018	49,470	15,974	65,444
Charge for the year	7,148	741	7,889
Disposals and write-offs	(201)	-	(201)
At 31 December 2018	56,417	16,715	73,132
Charge for the year	8,210	741	8,951
Disposals and write-offs	(1,433)	-	(1,433)
At 31 December 2019	63,194	17,456	80,650
CARRYING AMOUNT			
At 31 December 2018	18,630	1,851	20,481
At 31 December 2019	40,766	1,110	41,876

17. PROPERTY, PLANT AND EQUIPMENT

<i>(in thousands of HRK)</i>	Land	Buildings	Inventory and equipment	Assets under construction	Total
COST					
At 1 January 2018	154,858	4,522,121	8,595,827	502,597	13,775,403
Additions	-	183	48,604	365,954	414,741
Transfer from assets under construction	950	125,541	243,947	(370,744)	(306)
Transfers and reclassifications	-	151	(151)	-	-
Disposals	(308)	(6,915)	(93,052)	(3,603)	(103,878)
At 31 December 2018	155,500	4,641,081	8,795,175	494,204	14,085,960
Additions	-	115	46,926	511,122	558,163
Transfer from assets under construction	-	96,793	292,507	(419,104)	(29,804)
Subscribed capital increase	-	11,497	11,016	-	22,513
Disposals	(8)	(8,876)	(127,774)	(3,614)	(140,272)
At 31 December 2019	155,492	4,740,610	9,017,850	582,608	14,496,560
ACCUMULATED DEPRECIATION					
At 1 January 2018	-	2,814,184	5,022,332	-	7,836,516
Charge for the year	-	85,344	241,924	-	327,268
Transfer and reclassifications	-	27	(27)	-	-
Eliminated on disposal	-	2,814,184	5,022,332	-	7,836,516
At 31 December 2018	-	2,893,021	5,175,837	-	8,068,858
Charge for the year	-	86,520	247,268	-	333,788
Subscribed capital increase	-	1,054	2,027	-	3,081
Eliminated on disposal	-	(8,118)	(122,920)	-	(131,038)
At 31 December 2019	-	2,972,477	5,302,212	-	8,274,689
CARRYING AMOUNT					
At 31 December 2018	155,500	1,748,060	3,619,338	494,204	6,017,102
At 31 December 2019	155,492	1,768,133	3,715,638	582,608	6,221,871

17. PROPERTY, PLANT AND EQUIPMENT (continued)

Assets under construction relate to investments in real estate, plant and equipment construction. The most significant ongoing investments include the construction of the EL-TO switchgear in the amount of HRK 58,796 thousand (in 2018 in the amount of HRK 1,659 thousand), reconstruction of the TS 110/20 (10) kV Sućidar in the amount of HRK 27,263 thousand (2018 in amount of HRK 24,677 thousand), reconstruction of SS 110/35 kV Ivanić grad in the amount of HRK 26,195 thousand (2018 in the amount of HRK 19,866 thousand), reconstruction of SS 220/110 kV Mraclin within the SINCRO.GRID project in the amount of HRK 23,146 thousand (2018 in the amount of HRK 674 thousand), construction of TS Zamet in the amount of HRK 20.94 thousand (in 2018 in the amount of HRK 20,384 thousand), TS Sesvete HRK 16,786 thousand (2018 in the amount of HRK 17,557 thousand), revitalization of TS Osijek2 in the amount of HRK 28,879 thousand (2018 in the amount of HRK 14,620 thousand). Contractual obligations related to investments in progress at the reporting date amounted to HRK 777,263 thousand (2018: HRK 298,514 thousand), and anticipated time plan realization which is aligned with construction deadlines.

During 2019, the following significant investments were put into operation: reconstruction of the 400 kV plant of TS Melina in the amount of HRK 38,861 thousand, TS Pračno in the amount of HRK 39,985 thousand, connection of WPP Krš-Pađena in the amount of HRK 36,681 thousand and reconstruction of transmission lines 2x110 kV Slavonski Brod - EVP Andrijevcu.

During 2019 and 2018, the Company did not capitalize on borrowing costs as they does not relate to the a
On March 18, 2019, the Commercial Court in Zagreb issued a decision to increase the share capital of the Company by entering things by HEP d.d. for the amount of HRK 19,432 thousand. The entered items refer to power facilities along the highway that were owned by HEP d.d. and in accordance with the provisions of the Electricity Market Act, they must be owned by the transmission system operator.

Ownership over land and buildings

With regard to land and buildings, the Company has acquired or is in the process of acquiring ownership documentation. Restrictions related to property ownership over land and buildings relate to properties that are not officially registered as property of the Company. In order to protect its interests, the Company conducts several judicial and / or administrative proceedings primarily related to the land that is partially registered with the Company and which have on that land parts of power stations and other facilities in the Company's function. It is not expected that the outcome of these procedures will have a significant impact on the Company's financial position or result.

18. RIGHT-OF-USE ASSETS

<i>(in thousands of HRK)</i>	Business premises	Total
COST		
At December 31, 2018	-	-
Effect of the IFRS 16 adoption	2,886	2,886
At January 1, 2019 (adjusted)	2,886	2,886
Addition	2,985	2,985
Eliminated on disposal	-	-
At December 31, 2019	5,871	5,871
AMORTIZATION		
At December 31, 2018	-	-
At January 1, 2019	-	-
Charge for year	1,155	1,155
At December 31, 2019	1,155	1,155
CARRYING AMOUNT		
At January 1, 2019 (adjusted)	2,886	2,886
At December 31, 2019	4,716	4,716

19. PREPAYMENTS FOR PROPERTY, PLANT AND EQUIPMENT

<i>(in thousands of HRK)</i>	
As at 1 January 2018	4,578
Advances given	2,874
Utilised in current year	(3,835)
As at 31 December 2018	3,617
Advances given	6,294
Utilised in current year	(6,156)
As at 31 December 2019	3,755

20. INVESTMENT PROPERTY

(in thousands of HRK)

	31 December 2019	31 December 2018
Fair value	4,440	4.403
Net change in fair value of investment property	-	37
Closing balance at fair value	4,440	4.440

Investment property relate to the non-business property (offices, apartments and garages) owned by the Company and leased for an indefinite time to employees of the Company and third parties.

Investment property is carried at fair value based on the valuation by an independent, expert appraiser based on the comparative method to market prices for similar real estate – 2nd level.

The Company generates revenue from the rental of apartments classified as investment property in the amount of HRK 260 thousand (2018: HRK 262 thousand), The Company recorded direct operating expenses (including maintenance fee) in the amount of HRK 19 thousand (2018: HRK 18 thousand).

The Company regularly tests the investment property for impairment analysing the price of comparable real estate. At the reporting date, was used to estimate the independent, expert appraisers made for the financial statements for 2018 and one part of the estimate of an independent expert estimator of 2017 as management believes that the market has not changed significantly. Changes in the fair value of investing in real estate are presented in Note 12 "Other operating expenses".

21. INVESTMENTS IN ASSOCIATES

<i>(in thousands of HRK)</i>	Country	31 December 2019		31 December 2018	
		% ownership	Net book value	% ownership	Net book value
Hrvatska burza električne energije d.o.o.	Croatia	50,0%	8,000	50,0%	6,000
Value impairment			(5,500)		(7,409)
			2,500		591

The Company carries investment in associates at cost less impairment. In 2018, the Company increased subscribed capital of Hrvatska burza električne energije d.o.o. by HRK 2,000 thousand. In 2019 company has by internal assessment, increased value of investment in Hrvatska burza električne energije d.o.o. for HRK 1,909 thousand (2018: decrease for HRK 1,409 thousand).

22. FINANCIAL ASSETS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME

<i>(in thousands of HRK)</i>	Country	31 December 2019		31 December 2018	
		% ownership	Net book value	% ownership	Net book value
HEP Telekomunikacije d.o.o.	Croatia	13,7%	34,545	13,7%	34,545
JAO S.A.	Luxemburg	4%	2,578	5%	2,578
TSCNET Services GmbH	Germany	6,7%	2,728	7,7%	2,610
SEE CAO	Montenegro	12,5%	306	12,5%	306
			40,157		46,039

During 2013 the Company concluded the contract on incorporation of a new company HEP Telekomunikacije d.o.o with HEP d.d. and HEP Operator distribucijskog sustava d.o.o. whereby the Company has 13,73% share or HRK 34,545 thousand. Subscribed capital, in the extent invested by the Company, consists of optical and telecommunication assets.

The assemblies of companies CAO GmbH and CASC EU (two regional offices allocation for cross-border transmission of electricity capacity) approved in 2015 the merger agreement to create the office of the Joint Allocation Office (JAO). This merger has facilitated the internal electricity market in the European Union.

**22. FINANCIAL ASSETS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME
(continued)**

JAO S.A. is a joint service company where the owners are twenty transmission system operators (TSO) from seventeen countries.

SEE CAO is a joint company that provides an explicit cross-border transfer capacity between its shareholders, transmission system operators.

TSCNET as a regional security coordinator provides security service forecast for the Transmission System Operators and Power Flow Transmission through its transmission networks. These forecasts cover a one-year period up to the intraday phase of the working day.

23. RECEIVABLES FROM THE SALE OF APARTMENTS

Long-term receivables represent housing loans for apartments sold by HEP d.d. to its employees in the previous years, in accordance with the laws of the Republic of Croatia. Those receivables were transferred to the Company by its Parent Company on 1 July 2002. Receivables for apartments sold, which carry interest at a rate lower than the market rate, are repayable on a monthly basis over a period from 20 to 35 years. Management believes that the fair value of non-current receivables approximates their carrying values as to the effect of discounting was immaterial in view of the current low level of market interest rates for similar credit relations. Receivables are secured by mortgage on purchased flats.

<i>(in thousands of HRK)</i>	31 December 2019	31 December 2018
Total receivables for apartments sold	1,437	1,948
Current portion of long-term receivables	(603)	(666)
Non-current receivables	834	1,282

24. INVENTORIES

<i>(in thousands of HRK)</i>	31 December 2019	31 December 2018
Electric units and other materials	8,266	8,530
Spare parts	21,975	20,655
Building materials	461	488
Other	103	104
Value adjustment	(19,976)	(19,262)
	10,829	10,515

Movement in the impairment allowance for inventories is as follows:

<i>(in thousands of HRK)</i>	31 December 2019	31 December 2018
At 1 January	19,262	17,630
Impairment loss recognised	714	1,632
At 31 December	19,976	19,262

Impairment loss on inventories amounts to HRK 714 thousand and is included within Note 12 "Other operating expenses" in the statement of comprehensive income.

25. TRADE RECEIVABLES

(in thousands of HRK)

	31 December 2019	31 December 2018
Trade receivables	73,107	35,407
Impairment of receivables	(4,423)	(4,651)
<i>Net receivables</i>	68,684	30,756

Movements in impairment allowance were as follows:

(in thousands of HRK)

	2019	2018
At 1 January	4,651	5,546
Impairment of receivables	15	-
Impairment cancellation	-	(860)
Collected receivables, previously provided for	(243)	(35)
<i>Change on receivables impairment</i>	(228)	(895)
At 31 December	4,423	4,651

Management is confident that the fair value of the trade receivables at the reporting date approximates their carrying amount. The cost of trade receivables impairment is included within Note 12 "Other operating expenses".

25. TRADE RECEIVABLES (continued)

Ageing analysis of receivables not impaired is as follows:

<i>(in thousands of HRK)</i>	31 December 2019	31 December 2018
Not yet due	68,294	29,202
0 – 30 days	329	1,437
31 – 60	-	72
61 – 90 days	-	-
91 – 180	-	27
181 – 365 days	4	15
over 365 days	57	3
	68,684	30,756

Trade receivables are denominated in:

<i>(in thousands of HRK)</i>	31 December 2019	31 December 2018
HRK	59,202	17,028
EUR	9,482	13,728
	68,684	30,756

26. OTHER CURRENT ASSETS

<i>(in thousands of HRK)</i>	31 December 2019	31 December 2018
Income tax receivables	18,884	12,984
Prepaid expenses and accrued income	6,331	4,808
VAT receivables	25,017	16,273
Current portion of long-term receivables (Note 23)	603	666
Other receivables	1,577	1,403
	52,412	36,134

Prepaid expenses relate to additional health insurance premium and other expenses in the amount of HRK 1,431 thousand (in 2018: 670 thousand),

In 2019 accrued income in the amount of HRK 4,900 thousand comprise of ITC mechanism revenue thousand estimated by the Company's management for period November - December 2019 (2018: 4,138 thousand).

27. DEPOSITS

<i>(in thousands of HRK)</i>	31 December 2019	31 December 2018
Deposits – expropriation	19,575	15,167
Guaranties	65	-
	19,640	15,167

Deposits – expropriation

The Company is obliged to deposit funds in particular expropriation proceedings during the construction of energy facilities that will be withdrawn after the conditions of Expropriation ACT are met. The deposits have maturity of three months to one year, or until the fulfilment of the conditions, in the Expropriation Act and carry interest rates ranging from 0,4% to 2%.

28. CASH AND CASH EQUIVALENTS

<i>(in thousands of HRK)</i>	31 December 2019	31 December 2018
Giro account – domestic	130,275	20,938
Giro account – foreign	122,570	123,628
Deposits up to 90 days	3,020	12,264
Cash in hands	45	51
	255,910	156,881

Cash in banks refers to cash accounts at the domestic banks with average yearly interest rate from 0,01% for foreign currency accounts and 0,2% for domestic currency account.

Interest rates on short-term deposits are fixed and in the range of 0,85 % (HRK deposits) to 0,35% (EUR deposits) per annum.

29. CAPITAL AND RESERVES

Subscribed capital

(in thousands of HRK)

	31 December 2019	31 December 2018
Subscribed capital	4,948,627	4,929,195

During 2013, in accordance to Energy Market Act, Hrvatska elektroprivreda d.d. increased the Company's subscribed capital by entering assets and rights into the share capital, so the share capital increased from the amount of HRK 20 thousand to the amount of HRK 3,366,901 thousand to the amount of HRK 3,366,921 thousand.

On March 18, 2019, the Zagreb Commercial Court rendered a decision on the increase of the Company's share capital by the listing of items by HEP d.d. for the amount of HRK 19,432 thousand (see Note 17). After the increase, the share capital amounts to HRK 4,948,627 thousand.

At its session on 25 April 2019, the Company's Assembly passed a decision allocating the 2018 profit in the total amount of HRK 176,208 thousand by covering the carried forward loss in the amount of HRK 8,988 thousand, transferring the amount of HRK 104,345 thousand to retained earnings and for the remittance to the owner allocated HRK 62,845 thousand. During 2019, the Company paid HRK 30,000 thousand to the owner, while the remaining amount of HRK 32,845 thousand was paid in 2020.

Reserves

Reserves were made when the subsidiaries were merged in 2005 in the amount of HRK 40 thousand and when entering real estate in equity during 2013 amounting to HRK 5,483 thousand. With the increase in share capital from March 2019, the company's reserves increased by the amount of HRK 1 thousand to the amount of HRK 5,524 thousand.

30. SUBLOAN FROM AND LIABILITIES TO RELATED COMPANIES

<i>(in thousands of HRK)</i>	31 December 2019	31 December 2018
Liabilities toward HEP d.d. for subloan	423,691	498,165
Transaction cost for subloan refinancing	(2,466)	(3,342)
Other non-current liabilities to related companies	539	742
	<u>421,764</u>	<u>495,565</u>
Current portion of long-term debt	-	(75,898)
Non-current portion	<u>421,764</u>	<u>419,667</u>

As at 31 December 2012, the lease of real estate, plant and equipment was terminated in accordance with the Electricity Market Act required for carrying out the activity. In 2013 the lease of real estate, plant and equipment was cancelled in total. Part of due obligations relating to terminated lease shall be paid on the basis of long-term sub loans concluded with HEP d.d. based on received loans by parent Company from commercial banks.

The maturity of loan liabilities at the reporting date is as follows:

<i>(in thousands of HRK)</i>	31 December 2019	31 December 2018
Up to 6 months	-	37,949
6 – 12 months	-	37,949
1 – 2 years	-	-
2 - 5 years	423,691	422,267
	<u>423,691</u>	<u>498,165</u>

The maturity of other long-term liabilities at the reporting date is as follows:

<i>(in thousands of HRK)</i>	31 December 2019	31 December 2018
Up to 6 months	100	100
6 – 12 months	100	100
1 – 2 years	200	200
2 - 5 years	139	342
	<u>539</u>	<u>742</u>

30. SUBLOAN FROM AND LIABILITIES TO RELATED COMPANIES (continued)

The carrying amount of borrowings approximates their fair value given that most has a variable interest rate or a fixed interest rate, which was the approximate current market interest rate at the time of contracting. The fair value is calculated using discounted cash flows.

The carrying amounts of the Company's borrowings are denominated in the following currencies:

<i>(in thousands of HRK)</i>	<u>31 December 2019</u>	<u>31 December 2018</u>
HRK	-	-
EUR	421,764	419,667
	<u>421,764</u>	<u>419,667</u>

Loans amounting to HRK 421,764 thousand have fixed interest rates (2018: HRK 419,667 thousand). The interest rates for loans included in the table above are 4,851% (2018: from 4,851%).

31. PROVISIONS

<i>(in thousands of HRK)</i>	Provision for jubilee awards	Provision for retirement benefits	Provision for court cases	Total
At 31 December 2018:				
Non-current	3,142	43,360	23,955	70,457
Current	502	1,351	-	1,853
	<u>3,644</u>	<u>44,711</u>	<u>23,955</u>	<u>72,310</u>
At 31 December 2019:				
Non-current	3,618	52,797	48,058	104,473
Current	425	1,271	-	1,696
	<u>4,043</u>	<u>54,068</u>	<u>48,058</u>	<u>106,169</u>

31. PROVISIONS (CONTINUED)

Movement in provisions was as follows:

<i>(in thousands of HRK)</i>	Provision for jubilee awards	Provision for retirement benefits	Provision for court cases	Total
At 1 January 2018	4,304	46,023	24,933	75,260
Increase	-	5,629	398	6,027
Reversal	(78)	-	(1,376)	(1,454)
Utilised	(582)	(6,941)	-	(7,523)
At 31 December 2018	3,644	44,711	23,955	72,310
At 1 January 2019	3,644	44,711	23,955	72,310
Increase	864	14,508	24,902	40,274
Reversal	-	-	(799)	(799)
Utilised	(465)	(5,151)	-	(5,616)
At 31 December 2019	4,043	54,068	48,058	106,169

31. PROVISIONS (continued)

Jubilee awards and retirement benefits

According to the Collective Agreement the Company has an obligation to pay jubilee awards, regular retirement benefits and other benefits to its employees. In accordance with the respective agreement, the employees are entitled to a regular retirement benefit of 1/8 of the average gross monthly salary earned in the period of three months prior to the retirement for each completed year of continuous employment at the employer. No other postretirement benefits are provided.

Provisions for both jubilee awards and regular retirement benefits are calculated by an independent actuary, using estimates derived on the basis of the following key assumptions:

	Estimate	
	2019	2018
Average staff turnover rate	2,78%	2,95%
Discount rate	0,60%	1,90%
Expected increase in salaries	2%	2%
Average expected retirement age (in years)	61	61-65

Court cases

A provision for court cases relates to all court cases for which an estimate was made that it is not probable of them being resolved in favour of the Company. Provision for court cases expense is included within 'Other operating expenses in the statement of comprehensive income. The most significant court case for which is estimated that its solution is not probable in the favour of the Company relates to a dispute with a legal entity for damages initiated with the Zagreb Commercial Court, for which the Company made a provision of HRK 24,524 thousand in 2019 and to the complaint of an individual for the compensation of expropriated property, started at the State administration office in Split, in the amount of HRK 13,445 thousand. The Company has made provision in 2010 for the stated dispute.

Based on the expert opinion of legal advisors, management anticipates that the outcome of any disputes will not result in significant losses over the amount of a provision at 31 December 2019.

32. OTHER LONG-TERM LIABILITIES

<i>(in thousands of HRK)</i>	31 December 2019	31 December 2018
Deferred income - assets received with no reimbursement appliance od IFRS 15	394,975	375,882
Deferred income - assets received with no reimbursement till 30 June 2009	64,274	67,114
Deferred income – cash received from the EU funds	19,674	19,719
Lease liabilities under IFRS 16	4,755	-
Liabilities to state regarding apartments sold	943	1,258
Deferred income - cash received from others	140	297
	484,761	464,270
Current portion of other long-term liabilities	(21,112)	(16,347)
	463,649	447,923

Deferred income relates to fixed assets contributed by customers and others without charge and it is being recognised into income over the same periods as the related assets are amortised, which applies to contracts for connection to the network concluded by 30 June 2009. After 1 July 2009 the fee for connection is recognized as an income in the amount of funds received from the customer in the period when the customer is connected to the network or when permanent access to the delivery of the service is given.

By applying IFRS 15 from January 1, 2018, the connection fee is recognized as deferred income, while the income is recognized at the same time as the depreciation of the tangible asset to which it relates. By applying IFRS 15, the Company acknowledged the cumulative effect of applying IFRS 15 to its initial state and recorded deferred income from the current value of assets financed from the connection fee in the period from 1 July 2009 to 31 December 2017 in the amount of HRK 316,450 thousand. Effects of first-time adoption of IFRS 15 Revenues under contract with customers are described in more detail in Notes 2.4. Changes in Accounting Policies and Disclosures and 3.1 Sales Revenues.

Deferred income for cash received from EU funds refers to the funds received for participation of the Company in the SINCRO.GRID project in the amount of HRK 17,307 thousand, the CROSSBOW project in the amount of HRK 1,304 thousand, FARCROSS project in the amount of HRK 200 thousand and FLEXGRID project in the amount of HRK 863 thousand. Received incentives will reduce the costs incurred in implementing these projects in future periods.

32. OTHER LONG-TERM LIABILITIES (continued)

Other long-term liabilities relate to the obligation arising on the sale of housing units to employees under the Government program, which was discontinued in 1996. According to the law regulating housing sales, 65% of the proceeds from the sale of apartments to employees are payable to the state at such time as the proceeds are collected. According to the law, the Company has no liability to remit the funds until they are collected from the employee.

As of January 1, 2019, the Company adopted International Financial Reporting Standard 16 Leases (IFRS 16) and stated a lease liability, which is measured at the present value of the remaining lease payments, discounted using the interest rate specified in the lease agreement or the Company's incremental borrowing rate. On January 1, 2019. The Company's incremental borrowing rate is the rate at which a similar lease may be contracted, by an independent lessor, under comparable terms and conditions. The weighted average rate applied was 4,851%.

<i>(in thousands of HRK)</i>	<u>31 December 2019</u>	<u>31 December 2018</u>
Lease liabilities	4,755	-
Current portion	(1,443)	-
	<u>3.312</u>	<u>-</u>

The maturity of the lease liability at the reporting date is as follows:

<i>(in thousands of HRK)</i>	<u>31 December 2019</u>
till 3 months	361
3 to 12 months	1.082
1 to 2 years	1.443
2 to 5 years	1.443
over 5 years	426
	<u>4.755</u>

The movement of lease liabilities is shown as follows:

<i>(in thousands of HRK)</i>	<u>Long term leases</u>
At January 1, 2019	2.886
Interests (note 14)	(165)
New lease	2.985
Lease payment	(955)
Foreign exchange	4
At December 31, 2019	<u>4.755</u>

33. TRADE PAYABLES

<i>(in thousands of HRK)</i>	31 December 2019	31 December 2018
Amounts due to suppliers of fixed assets	320,236	188,279
Amounts due to suppliers of current assets	61,929	53,490
	382,165	241,769

34. OTHER CURRENT LIABILITIES

<i>(in thousands of HRK)</i>	31 December 2019	31 December 2018
Liabilities for calculated incentive severance payments	10,517	33,403
Liabilities for received guarantees	15,755	9,251
Deferred income for cross-border transmission capacity	8,644	8,478
Net wages	10,068	8,386
Liabilities for unused vacation	8,771	7,145
Liabilities for taxes, contributions and other	8,173	5,104
Wages contributions	3,134	2,659
Wages taxes	1,598	1,316
Other liabilities to employees	20,523	2,730
Prepayments for connection fees	14,119	3,371
Balancing energy accrued expense – imbalance settlement	141	2,982
ITC mechanism accrued expense	255	-
Current portion of long-term liabilities (Note 32)	21,112	16,347
Other	2,762	1,656
	125,572	102,828

Liabilities for calculated incentive severance indemnities in the amount of HRK 10,517 thousand (2018: HRK 33,403 thousand) refer to provisions for retirement of employees that left Company during January and February 2020, which were in mention period accrued and paid off, and are connected to Company restructuring.

Deferred income relates to cross border transmission capacity revenue which is quoted on yearly and monthly auctions held in December 2019 and that are going to be used during January and February 2020.

Accrued expenses balancing energy – imbalance settlement refer to estimated cost of Final settlement for 2020 by Company due to the fact that they are not charged to the Company till the date of balance.

35. RELATED PARTY TRANSACTIONS

The founder of the Company and the sole owner is Hrvatska elektroprivreda d.d. ("Matica " or " HEP d.d."), owned by the Republic of Croatia. In addition, the Company presents in the notes significant transactions with companies and / or entities wholly or partly owned by the State. The Company has certain business relationships with other companies within the HEP Group. Related parties are listed in Note 1.

In 2018 and 2019 the revenue recognition is based on energy Data on sales of electricity to customers, Methodology for determining tariff items for electricity transmission, and Decision on the amount of tariff items for the transmission of electricity by the Croatian Energy Regulatory Agency (HERA). On December 13, 2018, HERA issued a Decision amending the tariff items for electricity transmission in 2019.

Costs of ancillary services in the total amount of HRK 317,647 thousand (2018: 293,859 thousand) were defined by the Ancillary Services contracts concluded by HOPS with HEP - Proizvodnja d.o.o. and all in accordance with the Price-Determination Methodology for providing auxiliary services.

From January 1, 2017, the Company generates revenue from balancing energy and balancing energy – imbalance settlement to the Balance Group Managers (BGM) in accordance with the applicable Electricity Balancing Rules, Methodology for determining balancing energy prices, Responsibility Agreements for imbalance made with BGMs, and in accordance with a set of Ancillary Services contracts concluded with HEP Proizvodnja d.o.o.

35. RELATED PARTY TRANSACTIONS (continued)

Receivables, liabilities, income and expenses from the transactions with HEP d.d. and other related companies are presented in the table below:

(in thousands of HRK)	2019	2017
Income and expenses		
Sales income		
Electricity transmission fee income - HEP ODS d.o.o. and HEP Proizvodnja d.o.o.	1,310,804	1,338,804
Sales of balancing energy – Balance Group Managers – related parties	90,023	66,756
Sales of balancing energy - HEP Proizvodnja d.o.o.	25,118	38,160
Service income – HEP Telekomunikacije d.o.o.	18,079	18,073
Other sales income – related companies	7,618	4,194
	1,451,642	1,465,987
Other income		
Other income – related parties	517	843
Total related parties income	1,452,159	1,466,830
Finance income HEP d.d.	-	7,413
Expenses		
Other		
- Office space rental costs – HEP d.d.	-	625
- Telecommunication service cost – HEP Telekomunikacije d.o.o.	40,716	40,716
- Receivable impairment - HEP ODS	219	1,515
- Other expenses - related parties	5,527	5,345
	46,561	48,201
Transmission grid losses (Note 11)		
- Transmission grid losses – HEP d.d.	129,556	125,460
Purchase of regulating power (Note 11)		
Purchase of balancing energy – imbalance settlement – related parties BGMS	12,895	27,861
Purchase of balancing energy – HEP Proizvodnja d.o.o.	99,724	105,684
	112,619	133,545
Ancillary services– HEP Proizvodnja d.o.o. (Note 11)	317,647	293,859
Finance costs HEP d.d.	22,776	21,677

35. RELATED PARTY TRANSACTIONS (continued)

(in thousands of HRK)

31 December 2019 **31 December 2018**

Receivables and liabilities

Receivables from HEP d.d. and other companies from HEP Group

- Electricity transmission fee – HEP – ODS and HEP Proizvodnja	137,151	248,707
- for balancing energy from HEP Proizvodnja	3,525	7,770
- for balancing energy from BGMS- related parties	35,731	38,335
- connection fee from HEP Proizvodnja	-	16,783
- other	2,795	2,711
	179,202	314,306

Liabilities toward related parties

Current liabilities

- Amounts due according to lease contract – HEP d.d.	11,562	11,562
- Balancing energy – imbalance settlement – BGMS related parties	30,701	50,340
- Transmission grid losses – HEP d.d.	24,467	23,693
- deposits received HEP d.d. and HEP ODS	48,582	44,166
- other – HEP d.d.	19,125	19,268
- Accrued interest on subloan – HEP d.d.	3,940	3,926
- Prepayment for connection fee - HEP d.d. and other	19,394	8,126
- For the payment od 2018 profit	32,845	-
- Other	5,867	5,899
	196,483	166,981

Liabilities to HEP Proizvodnja d.o.o. for ancillary services	62,138	68,484
Liabilities to HEP Proizvodnja d.o.o. for connection to the grid – prepayment	753	595
	62,891	69,079

Total short term liabilities to related parties

259,374 **236,060**

Non-current liabilities

Subloan liabilities (Note 30) - HEP d.d.	421,225	494,823
Apartments sold (Note 30) - HEP d.d.	539	742
	421,764	495,565

Current portion (Note 30)

- (75,898)

421,764 **419,667**

During the year ending 31 December 2019, the Company has netted liabilities and interest on loans to related parties with receivables from affiliated companies in the amount of HRK 76,405 thousand relating to principal and HRK 20,796 thousand relating to interest (2018: HRK 106,736 thousand and HRK 27,973 thousand).

35. RELATED PARTY TRANSACTIONS (continued)

<i>(in thousands of HRK)</i>	Expenses		Sales revenue	
	2019	2018	2019	2018
State controlled entities				
Hrvatske željeznice d.o.o.	-	-	16,434	16,384
INA-Industrija nafte d.d.	4,902	4,778	-	-
Legislative, executive and other bodies of the Republic of Croatia	6	-	-	-
Petrokemija Kutina d.d.	281	-	5,580	5,633
Hrvatske šume d.o.o.	930	545	-	436
Croatia osiguranje d.d.	552	636	-	-
Narodne novine d.d.	286	316	-	-
Hrvatska radio televizija	516	536	-	-
Healthcare organizations and intitutions	190	195	-	-
Hrvatske telekomunikacija d.d.	695	1,434	14	14
Sveučilišta i veleučilišta	104	172	-	-
Jadrolinija d.d.	99	113	-	-
Judicial institution	7	18	-	-
Other users	201	336	54	1
Hrote d.o.o.	1,121	-	46,479	-
TOTAL	9,890	9,079	68,561	22,468

<i>(in thousands of HRK)</i>	Receivables		Liabilities	
	31 December 2019	31 December 2018	31 December 2019	31 December 2018
State controlled entities				
HŽ infrastruktura d.o.o.	1,524	1,830	-	-
Petrokemija Kutina d.d.	352	757	-	-
INA-Industrija nafte d.d.	-	-	479	431
Hrvatske telekom d.d.	-	-	162	190
Croatia osiguranje d.d.	-	-	80	112
Hrote d.o.o.	6,394	-	1,337	-
Jadrolinija d.d.	-	-	2	4
Narodne novine d.d.	-	-	26	28
Other users	94	137	363	118
TOTAL	8,364	2,724	2,449	883

36. CONTINGENT LIABILITIES AND COMMITMENTS

Operating commitments

As at 31 December 2019 as part of its investing activities, the Company has concluded contracts under which the construction of a number of significant facilities and equipment has commenced but not completed. The contract value of incomplete work under most significant projects amounts to HRK 777,263 thousand (31 December 2018: HRK 298,514 thousand).

Environmental protection

The Company monitors and analyses the environmental impact of its business activities on an on-going basis, The key impact indicators comprise emissions of pollutants into air and the quantity of production waste which the Company reports to the competent institutions, local self-government units and public stakeholders on a regular and timely basis, Personnel engaged in environmental protection undergo training, seminars and workshops to receive information about the obligations and measures provided in the applicable environmental laws and regulations, There is an environmental expenditure monitoring system (RETZOK) at the Company which monitors all investments in environmental protection since 2004.

The Company is in the process of performing analyses with respect to compliance with the requirements imposed by EU legislation in terms of more stringent pollutant emission limits and reduced greenhouse gas emissions, the greenhouse gas emission trading scheme, integrated environmental permitting system, as well as the system of ecologically important areas and corridors (the National Ecological Network).

37. FINANCIAL INSTRUMENTS

Capital risk management

Net debt to equity ratio (Gearing ratio)

The Company manages its capital to ensure that it will be able to continue as a going concern while maximizing the return to stakeholders through the optimisation of the debt and equity balance. Management reviews the capital structure on a semi-annual basis. As part of this review, management considers the cost of capital and the risks associated with each class of capital. The gearing ratio at the year-end can be presented as follows:

<i>(in thousands of HRK)</i>	31 December 2019	31 December 2018
Debt (long and short-term borrowings)	491,764	495,565
Current financial assets	(19,640)	(15,167)
Cash and cash equivalents	(255,910)	(156,881)
Net debt	<u>146,214</u>	<u>323,517</u>
Equity	5,190,678	5,101,938
Net debt to equity ratio	<u>2,82%</u>	<u>6,34%</u>

37. FINANCIAL INSTRUMENTS

Capital risk management (continued)

Debt is defined as long-term and short-term borrowings, and other long term liabilities. Equity includes all capital and reserves of the Company. Equity includes all capital and reserves.

Categories of financial instruments

(in thousands of HRK)

	<u>31 December 2019</u>	<u>31 December 2018</u>
Financial assets	1,437	1,948
Receivables for apartments sold	68,684	30,756
Trade receivables	179,202	314,306
Receivables from related parties	45,479	30,660
Other short-term assets	19,640	15,167
Current financial assets	255,910	156,881
Cash and cash equivalents	1,437	1,948
Total loans and receivables at amortised cost	<u>570,352</u>	<u>549,718</u>

(in thousands of HRK)

	<u>31 December 2019</u>	<u>31 December 2018</u>
Financial liabilities	421,764	495,565
Loan liabilities	1,083	1,554
Other non-current liabilities	382,165	241,769
Trade payables	259,374	236,060
Payables to related parties	125,572	102,827
Other short-term liabilities	421,764	495,565
Total financial liabilities at amortised cost	<u>1,189,958</u>	<u>1,077,775</u>

Fair value of financial instruments

The fair values of financial assets and financial liabilities are determined as follows:

- the fair value of other financial assets and financial liabilities is determined in accordance with generally accepted pricing models based on discounted cash flow analysis using prices from observable current market transactions and dealer quotes for similar instruments

Financial instruments held to maturity in the normal course of operations are carried at the lower of cost and the net amount less the portion repaid. Fair value is determined as the amount at which a financial instrument can be exchanged between willing and knowledgeable parties in an arm's-length transaction, except in the event of forced sale or liquidation. The fair value of financial instruments is the one quoted on the securities market or obtained using the discounted cash flow method.

37. FINANCIAL INSTRUMENTS (continued)

Fair value of financial instruments (continued)

Management believes that as at 31 December 2019, the carrying amounts of financial assets and liabilities and investment property approximate their fair value due to the short-term nature of those assets and liabilities.

Financial risk management objectives

The Company's Corporate Finance provides support services to the business operations, co-ordinates access to domestic and international financial markets, monitors and manages the financial risks relating to the operations of the Company through internal risk reports analysing exposures by degree and magnitude of risks. These risks include market risk (including currency risk, fair value interest rate risk and price risk), credit risk and liquidity risk.

The significant risks, together with the methods used to manage these risks, are described below.

Market risk

(i) Price risk

The Company operates with international customers and finances its operations using foreign currency denominated borrowings to a significant extent. As a result, the Company is exposed to the effect of exchange differences and changes in interest rates. In addition, due to credit terms extended to its customers, the Company is exposed to a risk of default.

(ii) Foreign exchange risk management

The Company undertakes certain transactions denominated in foreign currencies. Hence, exposures to exchange rate fluctuations arise. The carrying amounts of the Company's foreign currency denominated monetary assets and monetary liabilities at the reporting date are as follows:

(in thousands of HRK)

	Liabilities	
	31 December 2019	31 December 2018
The European Union (EUR)	435,467	507,318
	Assets	
	31 December 2019	31 December 2018
The European Union (EUR)	132,062	118,755

As at 31 December the exchange rate of HRK was as follows:

	31 December 2019	31 December 2018
EUR	7,44258	7,417575

37. FINANCIAL INSTRUMENTS (continued)

Categories of financial instruments (continued)

Market risk (continued)

Foreign currency sensitivity analysis

The Company is mainly exposed to the fluctuations in the exchange rate of the Croatian Kuna to the Euro (EUR). The following table details the Company's sensitivity to a 10% decrease in 2019 in the Croatian Kuna against the relevant foreign currency (decrease of 10% in 2018). The sensitivity rates below are used when reporting foreign currency risk internally to key management personnel and represents management's assessment of a reasonably likely change in foreign exchange rate. The sensitivity analysis includes only outstanding foreign currency denominated monetary items and adjusts their translation at the period end for percentage change in foreign currency rates. The sensitivity analysis includes monetary assets and monetary liabilities in foreign currencies. A negative number below indicates a decrease in profit and other equity where the Croatian Kuna changes by above mentioned percentage against the relevant currency. For a reverse proportional change of the Croatian Kuna against the relevant currency there would be an equal and opposite impact on profit and other equity.

<i>(in thousands of HRK)</i>	2019	2018
EUR change impact		
Decrease of net result	(30,341)	(38,856)

The exposure to the fluctuations in exchange rates is mainly attributable to the borrowings, trade payables, trade receivables and deposits denominated in Euros (EUR). The Company does not currently hedge currency risk with respect to the EUR as the local currency is pegged against the EUR.

Interest rate risk management

The Company is exposed to interest rate risk as it borrows funds at both fixed and floating interest rates, Part of the Company's borrowings are at variable rates. The Company is exposed to interest rate risk to the extent of the interest rate risk exposure of its parent.

37. FINANCIAL INSTRUMENTS (continued)

Interest rate sensitivity analysis

The sensitivity analyses below has been determined based on the exposure to interest rates at the reporting date. For floating rate liabilities the analysis is prepared assuming the amount of liability outstanding at the reporting date was outstanding for the whole year.

The Company does not currently hedge against interest rate risk, given the fact that all liabilities are contracted at a fixed interest rate and since the assessment of the potential effect of changes in interest rates is not considered significant.

The Company does not currently hedge against interest rate risk, given the fact that all liabilities are contracted at a fixed interest rate and since the assessment of the potential effect of changes in interest rates is not considered significant.

Credit risk management

Credit risk refers to the risk that counterparty will default on its contractual obligations resulting in financial loss to the Company.

The Company does not have any significant credit risk exposure to any single counterparty or any group of counterparties having similar characteristics. The Company defines counterparties as having similar characteristics if they are related entities. The most significant customer is the associated company HEP-ODS and it makes more than 54% of receivables on 31 December 2019.

Except as detailed in the following table, the carrying amount of financial assets recorded in the financial statements, which is net of impairment losses, represents the Company's maximum exposure to credit risk without taking account of the value of any collateral obtained.

Liquidity risk management

Ultimate responsibility for liquidity risk management rests with the Company's Management Board, which has built an appropriate liquidity risk management framework for the management of the Company's short, medium and long-term funding and liquidity management requirements. The Company manages liquidity risk by maintaining adequate reserves and credit lines, by continuously monitoring forecast and actual cash flows and matching the maturity profiles of financial assets and liabilities.

37. FINANCIAL INSTRUMENTS (continued)

Liquidity risk management

The following tables detail the Company's remaining contractual maturity for its financial liabilities and financial assets presented in the statement of financial position at the each reporting period end. The tables have been drawn up based on the undiscounted cash flows until maturity and include cash flows from both interest and principal.

As at 31 December 2019	Carrying amount	Contractual cash flows	Up to 1 year	1 - 2 years	2 - 5 years	Over 5 years
			<i>(in thousands of HRK)</i>			
<i>Non-interest bearing liabilities:</i>						
Liabilities for apartments sold	943	943	392	392	159	-
Other long-term liabilities	140	140	-	140	-	-
Trade payables	382,165	382,165	382,165	-	-	-
Payables to related parties	259,374	259,374	259,374	-	-	-
Other short-term liabilities	125,572	125,572	125,572	-	-	-
	768,194	768,194	767,503	532	159	-
<i>Interest bearing liabilities:</i>						
Loan liabilities	421,764	483,144	20,460	20,460	442,224	-
	421,764	483,144	20,460	20,460	442,224	-
Total	1,189,958	1,251,338	787,963	20,992	442,383	-

As at 31 December 2018	Carrying amount	Contractual cash flows	Up to 1 year	1 - 2 years	2 - 5 years	Over 5 years
			<i>(in thousands of HRK)</i>			
<i>Non-interest bearing liabilities:</i>						
Liabilities for apartments sold	1,257	1,257	433	433	391	-
Other long-term liabilities	297	297	-	297	-	-
Trade payables	241,769	241,769	241,769	-	-	-
Payables to related parties	236,060	236,060	236,060	-	-	-
Other short-term liabilities	102,827	102,827	102,827	-	-	-
	582,210	582,210	581,089	730	391	-
<i>Interest bearing liabilities:</i>						
Loan liabilities	495,565	678,012	97,145	20,485	560,382	-
	495,565	678,012	97,145	20,485	560,382	-
Total	1,077,775	1,260,222	678,234	21,215	560,773	-

37. FINANCIAL INSTRUMENTS (continued)

Liquidity risk management (continued)

<i>As at 31 December 2019</i>	Carrying amount	Contractual cash flows	Up to 1 year	1 - 2 years	2 - 5 years	Over 5 years
			<i>(in thousands of HRK)</i>			
<i>Non-interest bearing assets:</i>						
Non-current receivables	1,437	1,437	603	603	231	-
Trade receivables	68,684	68,684	68,684	-	-	-
Receivables from related parties	179,202	179,202	179,202	-	-	-
Short term financial assets	45,479	45,479	45,479	-	-	-
Other short-term assets	65	65	65	-	-	-
	294,867	294,867	294,033	603	231	-
<i>Interest bearing assets:</i>						
Current financial assets	19,640	19,836	19,836	-	-	-
Cash and cash equivalents	255,910	255,936	255,936	-	-	-
	275,550	275,772	275,772	-	-	-
Total	570,417	570,639	569,805	603	231	-

<i>As at 31 December 2019</i>	Carrying amount	Contractual cash flows	Up to 1 year	1 - 2 years	2 - 5 years	Over 5 years
			<i>(in thousands of HRK)</i>			
<i>Non-interest bearing assets:</i>						
Non-current receivables	1,948	1,948	666	666	616	-
Trade receivables	30,756	30,756	30,756	-	-	-
Receivables from related parties	314,306	314,306	314,306	-	-	-
Short term financial assets	30,660	30,660	30,660	-	-	-
Other short-term assets	8,037	8,037	8,037	-	-	-
	385,707	385,707	384,425	666	616	-
<i>Interest bearing assets:</i>						
Current financial assets	15,167	15,470	15,470	-	-	-
Cash and cash equivalents	156,881	160,018	160,018	-	-	-
	172,048	175,488	175,488	-	-	-
Total	557,755	561,195	559,913	666	616	-

38. EVENTS AFTER THE DATE OF FINANCIAL POSITION STATEMENT

- i. In January 2020, the Company entered into a long-term loan agreement with Hrvatska elektroprivreda d.d. according to which it received a loan in the amount of HRK 141,780 thousand for financing of investment projects.
- ii. At the Company's Assembly meeting held on March 31, 2020, a decision was made on the election of Mr. Marko Dvorski and Mr. Krešimir Ugarković as new members of the Supervisory Board of the Company from April 4, 2020, given that the current members of the Supervisory Board Ms. Alina Kosek and Mr. Ante Pavić mandate expired on April 3, 2020.
- iii. The Company has considered the effects of the COVID 19 pandemic on the Company's business conditions and believes that the event will not threaten the Company's operations and has not raised a question of Company's ability to continue as a going concern. The Company continuously monitors and assesses the impact of COVID-19, both in the immediate environment and within other markets in which the Company is present, and applies the relevant decisions of the competent state authorities. Furthermore, considering the business events and indicators in the environment, the Management Board of the Company considers that there are currently no indicators that would require additional adjustments and disclosures in the annual financial statements of the Company for the year ended 31 December 2019.

39. APPROVAL OF THE FINANCIAL STATEMENTS

These financial statements were approved by the Board,


Signed on behalf of the Company on 23 April 2020 by:



Dejan Liović
Board member



Zlatko Visković
Board member



Tomislav Plavšić
President of the Board


Hrvatski operator prijenosnog sustava d.o.o.
Kupska 4, Zagreb 1