Annual and Sustainability Report

HEP Group



MANAGEMENT BOARD'S REPORT

	2	

ON HEP GROUP

HEP Group companies 14 Key data 17

13

3

CORPORATE GOVERNANCE AND ETHICAL BUSINESS

Corporate governance 26
Management according to the international standards 30
Responsible and ethical operations 31
Activity in associations 33

21

35

4

STRATEGIC APPROACH TO SUSTAINABILITY

Business development 36
Material topics 37
Material topics, risk management 41
Materiality matrix 50
Materiality in the context of global sustainability goals 54



HEP GROUP BUSINESS OPERATIONS IN 2020

OPERATIONS IN 2020

Business environment and operations
62
Financial performance
69
Results by sectors
74
Financial position
79
Credit rating
81
Investments
82

SUSTAINABLE AND RESPONSIBLE MARKET APPROACH

Sustainable construction and development of energy system

Stability and security of generation, distribution
and supply of energy and energy sources

Market development and competitiveness

Responsible procurement management

112



SUSTAINABLE MANAGEMENT OF ENVIRONMENTAL IMPACTS

Goals 1 and 2: Climate change mitigation and adaptation

Goal 3: Pollution prevention and control

133

Goal 4: Sustainable use and protection of water and sea

146

Goal 5: Protection and restoration of biodiversity
and ecosystems

154

Goal 6: Waste management and transition
to a circular economy

161



169

191

CREATING AN EXCELLENT WORK EXPERIENCE

Covid-19: Responding to the challenges of the pandemic 173
Working conditions and collective bargaining 175
Education and professional development 176
Diversity and equal opportunities 179
Performance review and feedback 181
Health and safety in the workplace 182



85

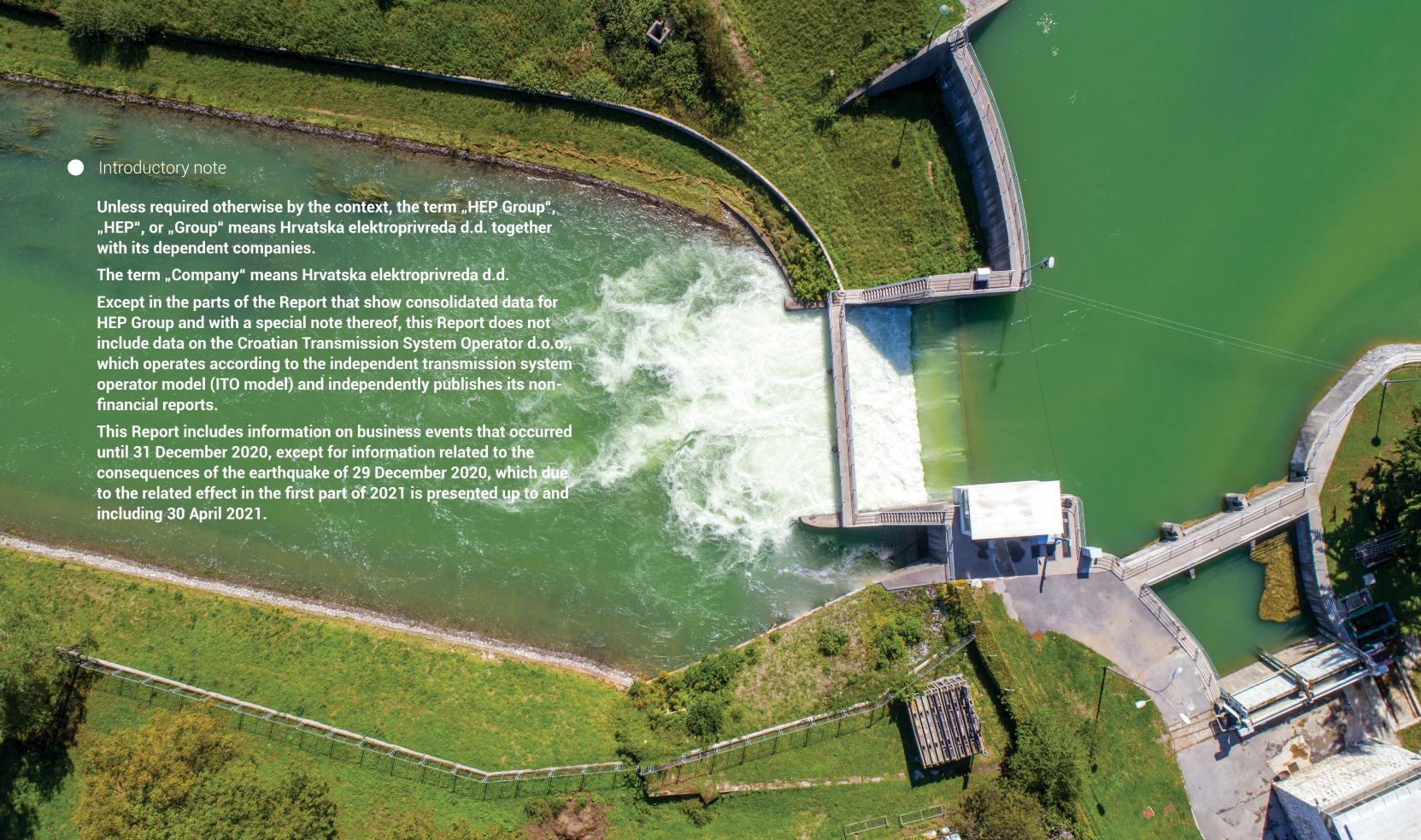
OUR SOCIAL IMPACT

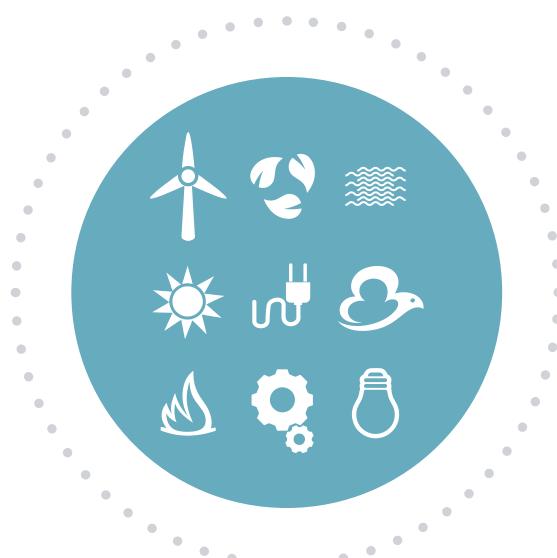
Involvement of communities in HEP development projects 195
Crisis mitigation action 198
Fighting energy poverty 199
Support to education 200
Green stories 203
Community engagement 205



GRI Index 210









Management Board's Report

Despite the crisis caused by the coronavirus pandemic (COVID-19) and two strong earthquakes that hit Croatia, HEP **Group continued to carry** out dynamic investment activities in 2020 with an emphasis on projects within the renewable development scenario.





the prevention of the spread of the new coronavirus implemented at the national level led to a slowdown of some economic activities and, consequently, to a reduction of electricity demand by business customers. However, despite a drop in sales and unfavorable hydrological circumstances, HEP Group continued to achieve good business results in 2020. Consolidated profit amounted to HRK 1.46 billion, which was an increase of HRK 61.1 million compared to 2019, while the share on the Croatian electricity market remained above 90 percent, i.e. at 90.4 percent. 12.5 TWh of electricity was produced in our own production facilities.

Epidemiological measures for In late October 2020, Standard & Poor's upgraded the company's rating outlook from stable to positive while affirming its standalone credit profile (bb+) as well as its long-term credit rating (BB+). In its report, S&P stated that HEP continued to achieve exceptional financial results during the times of COVID-19 pandemic. In November 2020, Moody's upgraded HEP's longterm credit rating from Ba2 to Ba1 with a stable outlook as well as HEP's stand-alone credit profile to ba1 reflecting the expectation of HEP retaining its strong financial profile and strong credit metrics in the future.

> In 2020, concrete steps were taken in the implementation of power plant construction pro-

jects focused on the creation of a flexible and sustainable production portfolio in accordance with the Integrated National Energy and Climate Plan for the Republic of Croatia 2021-2030 adopted by the Government in late 2019, and with the determinants of the new Energy Development Strategy of the Republic of Croatia, adopted in early 2020. Thus, in mid-2020, Vis Solar Power Plant (3.5 MW), the first large, non-integrated solar power plant on the Croatian islands, was put into operation. By the end of the year, we had six more solar power plants under construction: Cres (6.5 MW), Kosore (Vrlika) jug (2.1 MW), Stankovci (2.5 MW), Marići (1 MW), Kaštelir 2 (2 MW) and Obrovac (7.35 MW). In 2020, HEP was independently developing several long-term solar power plant projects, of which 75 MW Korlat Solar Power Plant stands out. In late 2019 and in the first half of 2020, HEP signed cooperation agreements with 11 municipalities and towns for developing solar power plant projects. Last year was also marked by the start of trial operation of our first wind farm, 58 MW Korlat Wind Power Plant near Benkovac, an investment of around HRK 500 million.

Of particular importance is the launch of the works on ancillary buildings within the Kosinj Hydropower System, which marked the start of our largest current project execution, also the largest project of HEP since the independence of Croatia. The project includes an upgrade of the Senj Hydropower System (HPS Kosini and HPP Seni 2), a HRK 3.4 million investment resulting in a total capacity increase of 412 MW. Among other construction projects regarding production facilities, the construction of a new high-efficiency combined cogeneration unit in EL-TO Zagreb CCPP (150 MWe and 114 MWt), an investment of HRK 900 million, continued in 2020 as well as the preparation of project documentation for the combined cogeneration plant in Osijek (80 MWe / 75 MWt).

Projects of district heating system efficiency increase will be

implemented in both Zagreb and Osijek. At the end of the year, the agreement on co-financing the HRK 700 m Zagreb hot-water network rehabilitation project from the European Regional Development Fund was signed. The implementation of the EU co-funded Osijek connection hot-water pipeline replacement project was also prepared during the year. In 2020, the implementation of another significant project co-financed by the European Regional Development Fund, i.e. the Introduction of the Smart Network Pilot Project, in the total value of HRK 230 million, began.

The business year 2020 was also marked by a further strengthening of the HEP Group's gas business. Activities on expanding HEP Plin operations continued by taking over 'PPD gas distribution' and 'PPD supply of households', companies based in Vukovar, and by acquiring the gas network in the Municipality of Bizovac. By the end of the year, LNG Croatia, in which HEP d.d. has a majority stake, completed the construction of a liquefied natural gas terminal on the island of Krk.

In other business areas, the eMobility development program stands out, under which the installation of ELEN charging stations continued, including ultra-fast charging stations on motorways, and charging stations in our own facilities. Active energy management continued with the implementation of energy consumption reduction projects, both in our own facilities and the customers'. To this end, 25 new solar power plants were installed on the roofs of office buildings owned by HEP in 2020, while HEP ESCO built solar power plants on 17 industrial facilities of our customers.

Our investments and achieved business success were the result of good business process management, as confirmed in early 2020 when HEP d.d. was awarded the certificate of the integrated management system of quality, environmental protection, energy, health, and safety at work according to ISO 9001: 2015, ISO 14001: 2015, ISO 50001: 2018 and ISO 45001: 2018. HEP employees made a great contribution to eliminating the consequences of the March earthquake in Zagreb and its surroundings and in Banovina region in December 2020, showing exceptional professionalism and dedication in their efforts to restore electricity supply to the affected areas as soon as possible. The cooperation with HEP Group unions on the issues of working conditions and the rights from the Collective Agreement was successful.

We continued with the education and professional training programs for HEP Group employees in 2020. We are aware that only educated and motivated workers can guarantee the successful implementation of our main development document 'HEP2030', which includes business diversification, strengthening of business activities in other markets, introduction of new products and services and taking favorable starting positions in niches that will mark the future.

HEP does not passively wait for the emergence of new trends and business models but strives to be a leader and a role model for other entrepreneurs, whethenergy sources, introducing smart networks, building infrastructure for electric vehicles, installing energy storage tanks or in the near future embarking on hydrogen production and

utilization projects. We will thus confirm our leading role in energy transition as well as the role of the largest green economy investor and one of the largest er it is investing in renewable investors in Croatia in general in the next business year, as well as in the years to come.

> President of the **Management Board** Frane Barbarić









HEP Group companies

HEP d.d. (Hrvatska elektroprivreda d.d.) is the parent company of HEP Group with the seat in Zagreb, wholly owned by the state. It consolidates the management of HEP Group dependent companies and is the owner of the

sets, which it contractually insfers to its subsidiaries for anagement. The core activity HEP Group is electricity proction, transmission, distribun, supply and trade. In addin, HEP Group is engaged in the production, distribution and supply of heat energy, natura gas wholesale and retail supply and gas distribution, provision of energy services, and other energy and non-energy activities.

The group consists of the parent company of Hrvatska elektroprivreda d.d. and subsidiaries listed below (on 31 December 2020).

	Dependent companies	Country	Ownership share (%)	Core activity
ŀ	IEP Proizvodnja d.o.o.	Croatia	100	Production of electricity and heat
ŀ	Irvatski operator prijenosnog sustava d.o.o. ¹	Croatia	100	Electricity transmission
ŀ	HEP Operator distribucijskog sustava d.o.o.	Croatia	100	Electricity distribution
ŀ	HEP ELEKTRA d.o.o.	Croatia	100	Electricity supply of customers as a public service
ŀ	HEP Opskrba d.o.o.	Croatia	100	Electricity supply
ŀ	HEP TOPLINARSTVO d.o.o.	Croatia	100	Heat production and distribution
ŀ	HEP PLIN d.o.o. ²	Croatia	100	Gas distribution and supply
ŀ	HEP Trgovina d.o.o.	Croatia	100	Electricity trade and optimization of power plant operations
ŀ	HEP ESCO d.o.o.	Croatia	100	Implementation and funding of energy efficiency projects
F	Plomin Holding d.o.o.	Croatia	100	Development of local infrastructure in the vicinity of Plomin TPP
(CS Buško Blato d.o.o.	Bosnia and Herzegovina	100	Hydro equipment maintenance
ŀ	HEP Upravljanje imovinom d.o.o.	Croatia	100	Management of non-operating assets and tourism
ŀ	HEP NOC	Croatia	100	Training, professional improvement and accommodation services
ŀ	HEP VHS Zaprešić d.o.o.	Croatia	100	Design and construction of multi-purpose hydrotechnical system
ŀ	IEP Energija d.o.o. Srbija	Serbia	100	Electricity trading
ŀ	IEP Energija d.o.o. Ljubljana	Slovenia	100	Electricity trading
ŀ	HEP Energija d.o.o. Mostar	Bosnia and Herzegovina	100	Electricity trading
ŀ	HEP Energjia sh.p.k.	Kosovo	100	Electricity trading
Е	NERGETSKI PARK KORLAT d.o.o.	Croatia	100	Electricity production
ŀ	HEP Telekomunikacije d.o.o.	Croatia	100	Telecommunication services
5	SUNČANA ELEKTRANA POREČ d.o.o.	Croatia	100	Electricity production
5	SUNČANA ELEKTRANA VIS d.o.o.³	Croatia	100	Electricity production
(Ornatus d.o.o.4	Croatia	100	Electricity production
1	luklearna elektrana Krško d.o.o.⁵	Slovenia	50	Electricity production
L	NG Hrvatska d.o.o. ⁶	Croatia	84	LNG (liquefied natural gas) operation

¹ As of 1 July 2013, HOPS operates under the Independent Transmission Operator model (ITO).

102-45, 102-48

² Prvo Plinarsko Društvo – Distribucija plina d.o.o., Prvo Plinarsko Društvo – Opskrba kućanstava d.o.o. and Plin VTC d.o.o. merged with HEP-Plin d.o.o. in July 2020.

³ In September 2020, HEP d.d. became the sole owner of Sunčana elektrana Vis d.o.o. (Vis Solar Power Plant).

⁴ As of August 2020, Plomin holding d.o.o. acquired a 100% share in Ornatus d.o.o.

⁵ In consolidated financial statements, the share in NE Krško d.o.o. is shown by the method of joint asset and liabilities management, HEP Group's share is shown for each asset and liability across income and expenditure.

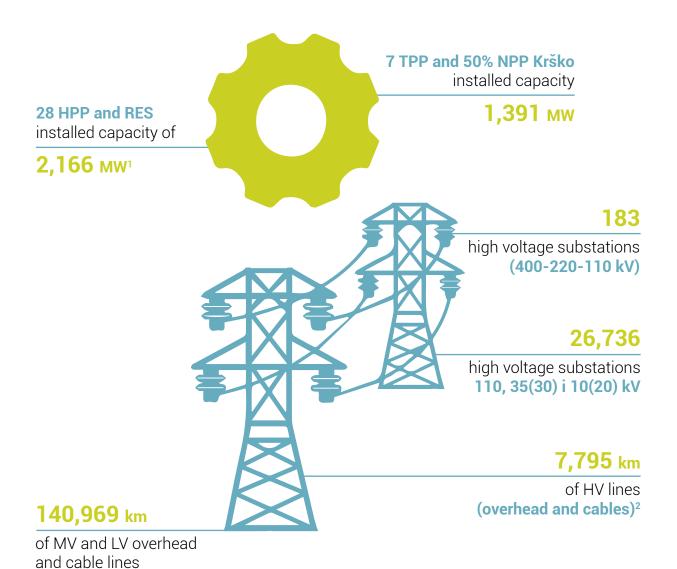
⁶ Joint venture with Plinacro d.o.o. (84%:16%) for the construction and operation of LNG evacuation pipelines from the island of Krk onto mainland and further towards final destinations.

HEP d.d. Companies in mixed ownership LNG Hrvatska d.o.o. Subsidiary companies wholly owned by HEP d.d. NE Krško d.o.o. co-owned by HEP d.d. CS Buško Blato d.o.o. HEP-Proizvodnja d.o.o. HEP VHS Zaprešić d.o.o. HEP-Operator HEP-Nastavno obrazovni centar distribucijskog sustava d.o.o. HEP-ELEKTRA d.o.o. → HEP Energija d.o.o. Ljubljana HEP-Opskrba d.o.o. HEP-Toplinarstvo d.o.o. HEP-Plin d.o.o. HEP Energija d.o.o. Beograd HEP Energija d.o.o. Mostar HEP-Trgovina d.o.o. HEP Energjia d.o.o. sh.p.k. Priština HEP - ESCO d.o.o. SUNČANA ELEKTRANA POREČ d.o.o. Plomin Holding d.o.o. Ornatus d.o.o. HEP - Upravljanje imovinom d.o.o. Independent ENERGETSKI PARK KORLAT d.o.o. **Transmission Operator** HEP-TELEKOMUNIKACIJE d.o.o. Hrvatski operator prijenosnog SUNČANA ELEKTRANA VIS d.o.o. sustava d.o.o. (HOPS)

Key data*

Consolidated data include HOPS

Generation facilities, transmission and distribution network



¹ Excluding HPP Dubrovnik Unit B which generates electricity for Bosnia and Herzegovina

² Including 110 kV overhead lines currently operating as MV (11.0 km in total)

Basic indicators



16.1 TWh

Sale of electricity¹ -11.7%

2018 17.5 TWh **2019** 18.3 TWh



12.5 TWh

Electricity production +1.3%

2018 12.9 TWh **2019** 12.3 TWh



1.9 TWh

Heat sales +5.3%

2018 1.8 TWh **2019** 1.8 TWh



14,372.6 HRK m

Operating income -7.4%

2018 15,198.3 HRK m **2019** 15,515.2 HRK m



and we have the state of the st

4,370.0 HRK m

EBITDA

2018 3,668.0 HRK m **2019** 3,763.7 HRK m



1,463.8 HRK m

HEP Group's net profit +4.4%

2018 1,364.8 HRK m **2019** 1,402.6 HRK m



1.8 TWh

Gas retail **+20.6%**

2018 1.4 TWh **2019** 1.5 TWh



3.1 TWh

Gas wholesale -46.0%

2018 5.9 TWh **2019** 5.8 TWh



44,639.5 HRK m

Total assets +4.9%

2018 40,349.6 HRK m **2019** 42,558.0 HRK m



4,342.2 HRK m

Investments

+28.2%

2018 2,376.1 HRK m **2019** 3,386.6 HRK m



11,668

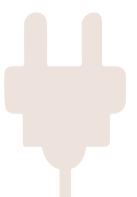
No. of employees +148

2018 11,011 **2019** 11,520

¹ HEP sales in Croatia and abroad







MISSION

Sustainable, reliable, and competitive generation, distribution and supply of energy in line with the customers' needs and with a high degree of social responsibility

VISION

HEP is a regional energy leader, that develops technologies, competitive advantage and innovative business models focused on the future customer needs and collaborates with the national and international institutions and companies.



Fundamental values

Competence and innovation

Our employees are the most valuable resource and support in achieving the company's mission and vision and in creating values. With openness to new ideas and creativity, we develop skills and competencies.

Quality and business excellence

Following the requirements and expectations of all stakeholders, we improve the quality of business behavior.

our products and services. Our goal is the company's business excellence.

Integrity

We act professionally and conscientiously in our relations towards customers, business partners, employees, and assets. We affirm zero-tolerance for corruption. Our Code of Ethics defines the principles of

Environmental responsibility

We produce, transmit and distribute energy in an environmentally friendly manner. We promote efficient use of energy among our customers as well as the development and use of renewable energy sources.

Fundamental principles in stakeholder relations

To realize our mission and fulfill our vision, we align our business with the expectations of our stakeholders, by respecting in our actions. the following principles:

Owner. Realize optimal business outcomes and adequate profit for the owner.

Customers: Meet the needs and fulfil the requirements of our customers by providing adeprofessionally and correctly, in spirit and professionalism.

HEP Group conducts its operaand ethical norms, on the princi-

compliance with the good business practice and generally accepted values, by building trust

Employees: Respect interests and capabilities of employees and develop the system of remuneration and promotions. Ensure and constantly implement advanced measures of health and safety at work, supquate value for their money. Act port life-long learning, team

the company also applies most tions in accordance with the law of the provisions of the Corporate Governance Code, drafted Croatian citizens, local experts ples of sustainable development by the Zagreb Stock Exchange from various Croatian regions. and social responsibility. As the and the Croatian Financial Serissuer of the corporate bond, vices Supervisory Agency. All

Business partners: Build and maintain relations with business partners, respecting their quality and professionalism. Conduct procurement processes fairly and prevent any potential irregularity.

Society, local communities: Respect cultural, religious and all other material and non-material diversities in our cooperation with local communities in which we operate, creating friendly environment.

members of the management and the Management Board are

The management structure of HEP d.d. during 2020

General Assembly

Annual and Sustainability Report | HEP Group

Tomislav Ćorić Member Since 15 February 2018

Supervisory Board

Goran Granić President Since 7 December 2017 Jelena Zrinski Berger Member Since 7 December 2017 Lukša Lulić Member Since 29 October 2018 Ivo Ivančić Member Since 29 October 2018 Meri Uvodić Member, employee representative Since 4 December 2018

Management Board

Frane Barbarić President of the Management Board Since 1 January 2018 Saša Duimić Member Since 4 December 2014 Nikola Rukavina Member Since 1 January 2018 Marko Ćosić Member Since 1 January 2018 Petar Sprčić Member Since 1 January 2018 Tomislav Šambić Member Since 1 January 2018

Statement on the Implementation of Corporate Governance Code

Pursuant to Article 22 of the Accounting Act (OG 78/2015, 134/2015, 120/2016), Hrvatska elektroprivreda d.d. has been producing the Statement on the Implementation of Corporate Governance Code.

In 2020, the Company implemented the Corporate Governance Code in the companies in which the Republic of Croatia has shares (OG 132/2017 and OG 52/2018).

The Company adheres to the provisions of the Code except for those which implementation at a given moment is not possible, applicable and practical. Said exceptions include the following:

- Dividend policy was not adopted as it falls within the jurisdiction of the Company owner i.e. the Republic of Croatia. A dividend payout is carried out in accordance with the Budget Act and the National Budget Execution Act.
- The Company did not introduce an independent compliance officer but is in the process of setting up said mechanism.
- The Supervisory Board did not set up the employee reward and motivation system, in particular with reference to the Management Board, in view of the salaries and other remuneration made in favor of the president and members of the Management Board defined under the Decision on determining salaries and other remuneration of the president and members of the management board (OG 83/2009, OG 77/2014).
- Remuneration paid to the members of the Supervisory

Board is not defined according to the contribution to the company's performance as each SB member receives a fixed and set remuneration amount in accordance with the Decision of the Shareholders' Assembly of HEP d.d. from 30 April 2009 adopted on the basis of the Decision of the Croatian Government class 120-02/09-01/14, file no.: 5030105-09-1 from 2 April 2009.

 The evaluation of the work of the Management Board, middle management and committees carried out by the Supervisory Board in terms of defined company targets during the previous period does not exist. However, some mechanisms serving as measures as defined in the Corporate Governance Action Plan are being set up. Said Plan also foresees the establishment of the Audit Committee competence for the selection, appointment and removal of an internal auditor.



Corporate governance

In accordance with the HEP **Group corporate governance** model, HEP d.d. manages and carries out a portion of corporate tasks as well as directs, coor-

dinates and monitors activities in dependent companies. Each member of the Management Board is an executive in charge of a corporate function. The

main internal organization of HEP d.d. is based on a corporate governance approach and on the Company authority over individual business activities.

Management Board

The President and the members of the Management Board are appointed and revoked by the Supervisory Board of the Company. The term of office of the president and the members of the Management Board is 4 years. The Management Board of the Company consists of 6 members, one of whom is appointed the President. The current structure of the Management Board consists of six functions: president of the Management Board, Board member in charge of financial affairs support functions, financial operations, procurement and EU regulation, Board member in charge of regulatory functions, regulated and market activities, Board member in charge of market activities, Board member in charge of production activities,

and Board member in charge of investments, strategic and corporate development, project development and IT.

Pursuant to the Articles of Association of the Company and for the purpose of the execution of management tasks and authorities, the Management Board carries out the following activities:

- · manages the business affairs of the Company;
- establishes and implements the business policy, medium- and long-term plans;
- carries out decisions passed by the Supervisory Board and the Shareholders Assembly, takes measures and issues instructions for their implementation;

- passes Company internal rules as well as organizational rules;
- represents and acts for the Company, and signs contracts within the framework of the law and these Articles of Association;
- proposes decisions on matters from the scope of work of the Supervisory Board and Shareholders Assembly of the Company;
- submits reports to the Supervisory Board on business policy and other principle issues regarding future operations as well as on deviations from earlier predictions providing the reason;
- submits annual financial reports to the Company's Supervisory Board;

- · submits the report on the Company's state-of-affairs to the General Assembly once a year;
- · submits the written consolidated annual company report to the General Assem-
- appoints members of the Assembly and Supervisory
- Boards of the companies in which HEP d.d. has controlling interest or significant influence:
- appoints and revokes Company's employees with special authorities and responsibilities:
- · adopts staff and employment plans;
- proposes and takes necessary measures and issues direct orders to ensure operations of the Company, especially the safety and the operation of the electric power system;
- performs other work-related tasks in line with the law and Company rules.

Supervisory Board

The Supervisory Board consists of a maximum of 7 (seven) members. Six members are appointed by the Shareholders Assembly of the Company and one is elected by the Works Council pursuant to the provisions of the Labor Act. There are currently four Supervisory Board members appointed by the Shareholders Assembly and one by the Works Council. The Decision of the Shareholders Assembly on appointing and revoking Supervisory Board members enters into force on the day of its adoption.

The Supervisory Board supervises the management of the Company's operations. Pursuant to the Company's Articles of Association and within the scope of its responsibilities, it:

- appoints and revokes the Management Board of the Company;
- examines and reviews business records, documentation, cash records, securities and other documents related to the operations of the Company;
- gives consent to annual financial reports made by the Management Board of the Company;
- gives prior consent to the decisions of the Management Board where this is set under the Articles of Association:
- submits reports to the Shareholders Assembly of the Company on the super-

- with regard to financial operations and its consistency with business records:
- performs other activities set by the law and Company rules.

Some large transactions, long term debt and the establishment of a company in Croatia and abroad requires the consent of the Supervisory Board. The Supervisory Board appoints the Audit Committee responsible for the objectivity and credibility of information and reports submitted to the Supervisory Board. It also supervises the implementation of internal and external audits in the Company and prepares and supervises the implementation of the SB decisions regarding report submission vision carried out, especially and audits within HEP Group.

Evaluation of the work of the Supervisory Board

During 2020, as part of the pro- was conducted. The evalua- and functioning of supervisory

ject to improve corporate gov- tion was conducted using an boards and a list of competenernance, an evaluation of the online questionnaire to assess cies of their members. Based work of the Supervisory Board the general patterns of work on previous personal experi-

ence of participating in the work ment Board. The guestionnaire of the Company's Supervisory Board, its members were asked to assess the representation of the answers received reflect the practices described in the statements in the work of the Company's Supervisory Board on a five-point scale (1- to a small extent, 5 – to a very large extent).

The assessment covered four aspects of the functioning of the Supervisory Boards: (i) The HEP's activities and services, as effectiveness of the Supervisory Board; (ii) The manner of work of the Supervisory Board; (iii) Engagement of members of the Supervisory Board; (iv) Cooperation between the Supervisory Board and the Manage- ment were also assessed as

was completed by all members of the Supervisory Board and opinion and assessments of all members of the Supervisory Board in 2020.

Of the examined desirable competencies of the members of the Supervisory Board, the most important were the knowledge on well as strategic planning and management. Information technology and security, financial and accounting operations and reporting, and control functions of operations and risk manageimportant to a large extent, but they also showed a difference between assessing the importance and their representation among current members of the Supervisory Board. The competencies of knowledge of the legal and regulatory framework and the business environment are assessed as moderately important. These are also the only competencies in which the assessment of representation among the current members of the Supervisory Board is higher than the assessed importance of the company.

General Assembly

The General Assembly is composed of shareholders and/or their proxies. It decides on the issues set under the law and the Articles of Association, in particular it:

- passes the Articles of Association and its amendments:
- appoints and revokes the members of the Supervisory Board:

- makes decisions on the use of profit;
- · revokes members of the Management and Supervisory Boards of the Company;
- appoints the auditor of the Company;
- decides on an increase or decrease in the capital stock of the Company;
- decides on status changes and a dissolution of the Company;
- carries out other work in accordance with the law and the Articles of Association of the Company.

Internal Auditor

function of internal audit and the internal supervision of HEP Group.

The Internal Audit Department Business operations of Internal is responsible for the corporate Audit are defined under the Act on the Internal Control System in as such it represents a part of the Public Sector (OG 78/15) and the Internal Audit Rules, which have been harmonized with the

IPPF (International Professional Practices Framework). The Rules are based on the fundamental internal audit principles (integrity, objectivity, confidentiality, expertise) and guarantee

a quality normative framework necessary for the professional conduct of the internal audit department tasks. The International Professional Practices Framework is a layout of professional rules and guidelines defining the work of the internal audit, which have been structured and integrated in a document published by the IIA Global.

The Internal Audit Department carries out internal audits in line with the Strategic Plan and the Department Annual Plan adopted by the Management Board of

Audit Committee. The purpose of internal audits is to provide the Supervisory Board, the Audit Committee and the Management Board of HEP d.d. a reaefficiency and effectiveness of the business system and processes, reliability and accuracy of information, compliance of business operations with laws, regulations and official documents of HEP d.d. as well as HEP Group's plans and business policies.

HEP d.d. with the consent of the The Department also provides recommendations for the improvement of business processes, it assists the Management Board of HEP d.d. and the responsible management of sonable guarantee of security, HEP Group in improving internal controls and mitigating operating risks.

> Pursuant to the Audit Act and the Act on the Internal Control System in the Public Sector, the Internal Audit Department falls under the jurisdiction of the Audit Committee.

Audit Committee of the Supervisory Board

Goran Granić, PhD, president

Professor Boris Cota, PhD, independent external member Professor Boris Tušek, PhD, independent external member



We generate, transmit and distribute electricity in environmentally sustainable way

Management according to the international standards

HEP Group companies and its parent company approach their impact management through integrated systems certified according to ISO standards.

Hrvatska elektroprivreda d.d. and HEP Upravljanje imovinom have introduced and certified integrated management systems for quality, environmental protection, energy and health and safety at work according to international standards ISO 9001: 2015, ISO 14001: 2015, ISO 50001: 2018 and ISO 45001: 2018.

HEP Proizvodnja has introduced and certified an integrated en-

vironmental, quality and energy management system in accordance with international standards ISO 14001: 2015, ISO 9001: 2015 and ISO 50001: 2018, and the establishment of a health and safety management system according to ISO 45001: 2018 is

HEP ODS has introduced and certified an integrated management system for the environment, energy and health and safety in accordance with international standards ISO 14001: 2015, ISO 50001: 2018. and ISO 45001: 2018.

The introduction of an integrated quality management system, environmental protection and energy in HEP Toplinarstvo is underway. Quality management systems according to ISO 9001: 2015 and the environment according to ISO 14001: 2015 have been introduced, and the introduction of energy management systems according to ISO 50001: 2018 is in progress.

HEP Opskrba Customer Service has introduced a quality management system according to the ISO 9001: 2015 standard.

Responsible and ethical operations

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Pursuant to the provisions of the Code of Ethics, HEP Group companies have their own ethics commissioner who is their representative in the Group's Ethics Committee, and a member of the Ethics Committee may also be a representative of trade unions registered with HEP.

Ethics commissioners monitor the implementation of the Code of Ethics in the company in which they are appointed, promote ethical behavior in employee relations and customer relations, provide advice to employees on ethical behavior, receive complaints from employees and other interested legal and natural persons on unethical and possible corrupt practices, carry out the procedure of examining the merits of complaints and keep records of received complaints.

Procedures for examining the merits of the complaint of the Ethics Commissioner, as well as the Ethics Committee of the HEP Group, include the statement of the other party with the relevant documentation. If possible, a conversation is held on both sides to gain a better insight into the case

and to make an opinion easier. Cooperation with all organizational units as well as individuals is excellent, and special HEP.

work is being done to collect feedback from participants in the proceedings on how the case has been resolved.

Furthermore, the Ethics Committee, among other tasks prescribed by the provisions of the Code of Ethics, analyzes the occurrence of violations of the Code of Ethics and monitors its application, as well as informs the Management Board of HEP d.d. about the implementation of the Code of Ethics and its observations at least twice a year, and more often as needed. Also, the Ethics Committee encourages and proposes measures to strengthen ethical standards in

Structure of complaints received in 2020

	TOTAL	JUSTIFIED	UNJUSTIFIED
Number of received complaints	105	39	66
Number of solved complaints	105	39	66
- number of anonymous complaints	4	1	3
- number of non-anonymous complaints	101	38	63
Number of non-anonymous complaints filed by HEP employees	1	1	0
Number of non-anonymous complaints filed by energy suppliers	0	0	0
Number of non-anonymous complaints filed by other interested legal and private subjects	100	37	63
Number of complaints by type (stated potential areas of complaints)			
a) labor relations	3	1	2
b) discrimination	0	0	0
c) corruption	0	0	0
d) conflict of interest	2	0	2
e) nepotism	0	0	0
f) public procurement	0	0	0
g) customer relations	7	4	3
h) calculation and invoicing	46	19	27
i) connection to LV network	14	5	9
j) unauthorized consumption	4	1	3
k) other	29	9	20

comes in HPP Dubrovnik in Jan- including three persons who uary 2019, the County State Atheld responsible positions at torney Office filed an indictment HEP Proizvodnja at the time of at the Dubrovnik County Court the commission of the offense

Due to the fire with fatal out- against five Croatian citizens, with which they were charged. An indictment was also filed against the legal entity, HEP Proizvodnja d.o.o.

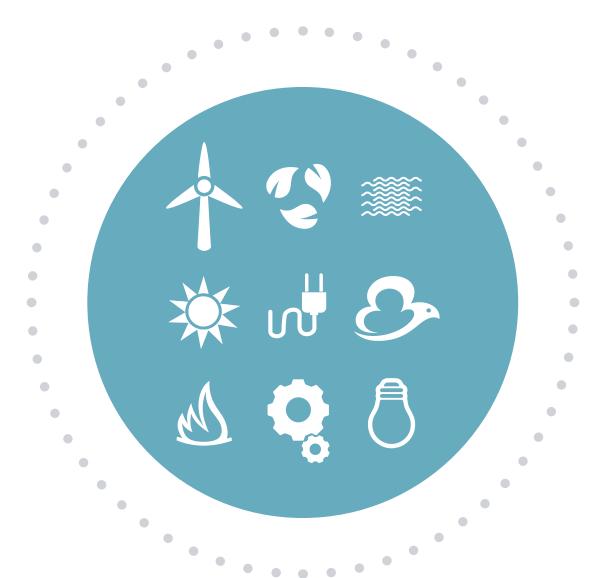
Activity associations

During 2020, HEP d.d. and HEP Group companies and individual experts from HEP participated in the work of a large number of domestic and international organizations, institutions and associations:

EURELECTRIC (Union of the Electricity Industry); CIGRE (International Council on Large Electric Systems) and Croatian Committee of CIGRE; ICOLD (International Commission of Large Dams); CIRED (Congres International des Réseaux Electriques de Distribution; International Electricity Distribution Conference); LWA (Live Working Association); EFET (European

Federation of Energy Traders); Society; Croatian Green Building IAEA (International Atomic Energy Agency); ENS (European Nuclear Society); UNICHAL (International Union of Heat Disof Croatia; ISACA (Information Systems Audit and Control Association) through ISACA Chap-Company Lawyers Association); Croatian Academy of Technical Sciences; Electrical Engineering Society; Croatian Nuclear Society; Croatian Water Protection Relations Association.

Council; Croatian Gas Association; Croatian Association of Corporate Treasurers; Croatian Association MIPRO; Croatian Air tributors); EUROHEAT & POWER; Protection Association; Croatian IIA GLOBAL (Institute of Internal Association of Nature and Envi-Auditors, Florida, USA), via HIIR ronmental Protection Experts; - Institute of Internal Auditors Croatian Business Council for Sustainable Development; Croatian Chamber of Commerce; Croatian-Austrian Chamber ter Croatia; ECLA (European of Commerce; German-Croatian Chamber of Industry and Commerce: CROMA - Croatian Association of Managers and Entrepreneurs; Croatian Public







Business development

HEP Group defines its long-term stability aimed at a continuous growth by achieving the following priority objectives:

- Sustainable and flexible energy portfolio through RES investments (primarily wind farms and solar power plants), hydro power plant revitalization and the construction of new ones, and by focusing on the construction of high efficiency cogeneration facilities. The availability of various technologies for electricity and heat production in the HEP Group portfolio may thus additionally optimize electricity and heat production costs depending on energy fuel availability and prices
- as well as the market price of electricity.
- Implementation of the smart grid concept underscoring the development of smart grids and compatible advance technology projects.
- Optimization and improvement of business processes through a permanent enhancement of employees' competencies and innovation based on the efficient knowledge management on the corporate level along with a parallel business process optimization.
- Market flexibility through defining and creating new products and services on the energy fuel market in

all wholesale and retail segments aimed at retaining the current share of the Croatia's energy fuel market and at increasing the share on the regional markets.

Cooperation with energy sector stakeholders by establishing a timely and active cooperation in various phases of a design and adoption of legal documents by EU and nationally focusing on the creation of a more advanced energy fuel market.

Material topics

In its seventh sustainability reporting cycle, HEP Group continued the materiality check process and stakeholder engagement. In the light of significant regulatory changes, especially the European Green Plan and EU Taxonomy and with the intent to strengthen the management approach to environmental, social and governance (ESG) risks, we adapted our material topics in this reporting period.

The biggest materiality interventions were done in the environmental segment, where we harmonized the material topics fully with the EU Taxonomy

goals. We checked all material topics relative to their integration into strategic and development goals of HEP Group until 2030., and the management of impacts in those areas. Having in mind the size of HEP Group, diversity of our companies and business operation areas, our impacts are versatile. However, they are fully connected within our major material areas, with stronger intensity in particular areas. For this reporting period, we reassessed the contribution by HEP Group to the realization of the UN sustainability goals and targets. The novelty in the

report is connecting material topics with the ESG impacts, which forms an adequate basis for systematic risk evaluation in those areas and raising quality of reporting on management approach in the next reporting period. Material topics were firstly evaluated internally within the Team for reporting and preparation for independent evaluation of ESG criteria, and later with our stakeholders.

Strategic goals HEP Group 2030

Sustainable and flexible energy portfolio

Implementation of the concept of advanced networks

Optimization and improvement of business processes

Market flexibility

Cooperation with energy sector stakeholders

Material topics of HEP Group

Environmental topics

Climate change mitigation
Climate change adaptation
The sustainable use and protection of water
and marine resources
The transition to a circular economy
Pollution prevention and control
The protection and restoration of biodiversity
and ecosystems

Social topics

Attractive employer
Diversity and inclusion
Safe and healthy workplace
Dialogue with social partners
Stakeholder engagement and collaboration
Community investments

Economic and governance topics

Investment planning
Diversified generation mix
Reliable distribution systems
Ensuring national critical infrastructure
RES investments
Revitalization of generation facilities and network
Strategic planning
Responsible corporate governance
New market models
EU and other institutional sources of finance
Synergy effects in business
Risk management

Market topics

Products and services development Customer trust Purchase power and energy poverty Responsibility in supply chain Prices of energy Innovation and digitalization

ESG criteria

GHG emissions
Emissions intensity
Energy usage
Energy intensity
Energy mix
Water usage
Environmental operations management
Land use and ecological sensitivity

Pay equality
Employee turnover
Gender equality
Temporary worker ratio
Non-discrimination
Injury rate
Health and safety

Board diversity
Collective bargaining
Ethics and anti-corruption
Privacy of data
ESG reporting
Disclosure practices

UN sustainable development goals

































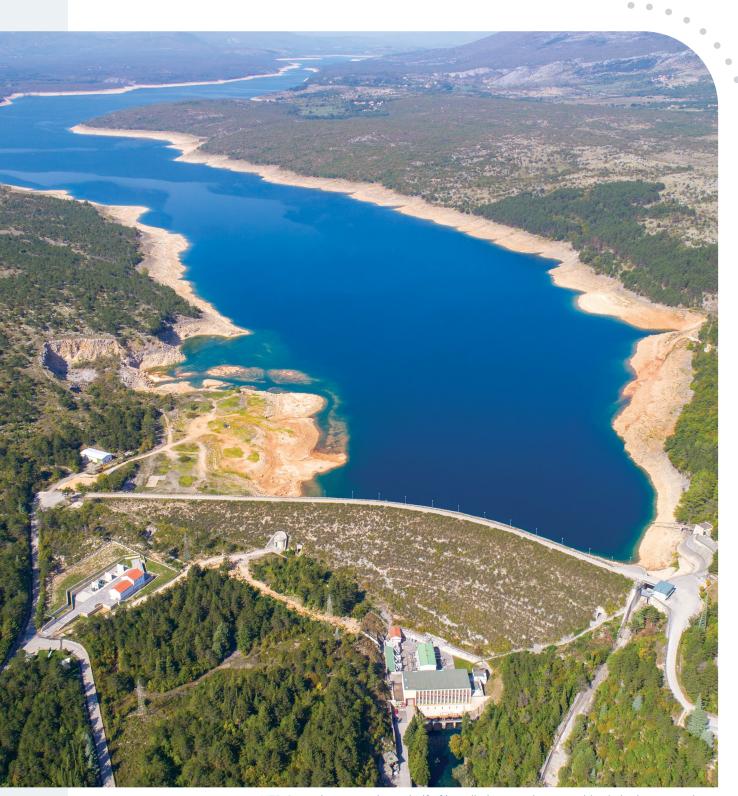


102.47









HEP Group has more than a half of installed generation capacities in hydropower plants

Material topics, risk management and stakeholder engagement

Having considered the impacts of HEP Group on our stakeholders and the environment, we maintained the approach to materiality that integrated similar material topics into four large topical areas according to environmental, social, economic and governance, and market impacts.

Although market impacts can be considered in the context of economic and social aspects, they deserve a special material area, because of the size and diversity of markets on which HEP Group operates and the plentitude of stakeholders it has impacts on. The following paragraphs present the process of stakeholder engagement,

areas of material impacts and numeric indicators of stakeholders' assessments relative to the importance of impacts and stakeholders' evaluation of activity and success of material topics management. The management approach to risks is briefly presented within each area assessed as material to stakeholders' decision making and active management of impacts by HEP Group. Material topics are matched with ESG criteria we used in determining material aspects. The thematic chapters of this report contain descriptions of impacts according to the GRI indicators within aspects.

We engaged stakeholders to share their opinions on the importance of particular impacts by HEP Group related to sustainability in material areas, responsible business operations of HEP and stakeholders' perceptions of success of HEP's levels of activity and success in implementing sustainable and responsible practices. Stakeholder engagement was conducted by online research with the participation of 62 stakeholders from key stakeholder groups of HEP Group: state organizations and bodies, local communities, customers and buyers, suppliers, scientific and education institutions, civil society organizations (NGOs), me-

dia, social partners, and other external stakeholders. Besides participating in materiality assessment, stakeholders were invited to share their comments on impressions of how HEP handles stakeholder relations.

In addition to the conducted stakeholder engagement, HEP Group continually includes stakeholders in various dialogue and communication formats in all its business processes and activities. Stakeholders contribute their opinions within legally provided formats of involving interested public in the processes of environmental impact assessment, ecological network assessment and obtaining environmental permits. HEP Group also regularly engages customers and buyers to obtain opinions on their experience and satisfaction and the opportunities to advance the quality of business. Stakeholders are engaged in various other dialogues.

Sustainable management of enmaterial topics: climate change mitigation, climate change adaptation, the sustainable use moderately successfully. One

and protection of water and marine resources, the transition to a circular economy, pollution prevention and control, and the protection and restoration of biodiversity and ecosystems.

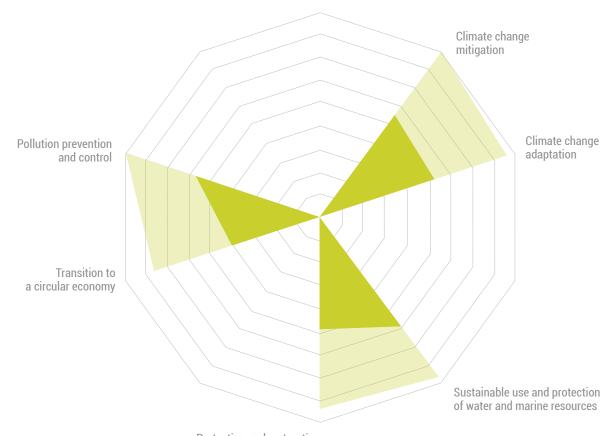
Management approach to these topics and risk management are described in detail in the chapter on environmental impacts management and presented through six goals of EU Taxonomy. Almost all stakeholders, even 94.63 percent, assess the environmental set of material topics as important or the most important for managing HEP Group impacts. Within the area, the stakeholders evaluate as the most relevant pollution prevention and control, and climate change mitigation. More than a third of stakeholders consider as extremely important the topics of climate change adaptation and the sustainable use and protection of water and marine resources. Stakeholders attribute somewhat less importance to the transition to a circular economy.

vironmental impacts comprises According to stakeholders' opinions, HEP Group manages environmental topics very or

third of the informed stakeholders hold that HEP Group manages most environmental topics in a satisfactory manner. More than a third think that HEP Group manages the topics the sustainable use and protection of water and marine resources and pollution prevention and control very successfully. Stakeholders recognize that improvement of management approach and necessary active engagement should be implemented in the topics of transition to a circular economy and the protection and restoration of biodiversity and ecosystems. However, it should be noted that almost one third of stakeholders declared themselves unable to assess the levels of activity and management of HEP Group related to circular economy. Since stakeholders evaluated this topic as the least important, it can be concluded that they are less informed on the topic or that the topic is less represented in the public space.

The graphic presents stakeholder evaluations on the levels of activity (internal segment) in relation to the assessed importance of individual material topics (external segment).

Stakeholders' assessment of the importance of material topics in relation to the management activity in environmental impacts



Protection and restoration of biodiversity and ecosystems

Annual and Sustainability Report | HEP Group

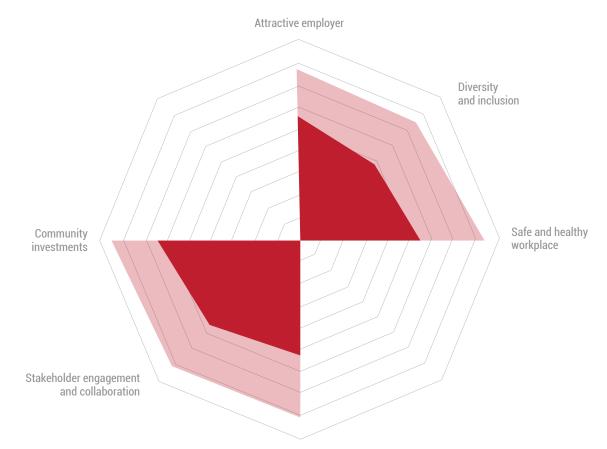
is reflected in managing internal topics: development of HEP Group as an attractive employer, diversity, and inclusion, and ensuring safe and healthy workplace; and managing external impacts: in dialogue with social partners, stakeholder engagement and collaboration, and community investments. The size and the importance of HEP Group as the organization that operates in all parts of Croatia, and one of the largest employers shapes our strategic approach to this material area. Versatile business activities condition the increased capability to attract high quality employees and to maintain the satisfaction of the present employees. We manage risks in this segment by continuous investment in employee education, their protection and safety at work. We enable employees to develop professionally, sustainably manage their career and to work in a motivating and healthy workplace. Besides continuous internal development, we create external partnerships, invest in science and education. The pandemic and earthquakes brought nu- impact management. Stake-

Responsibility in social impacts merous management challenges in the working environment. It was especially important to secure remote work options and protect employee health in the new circumstances. HEP Group manages the material topic of stakeholder engagement and collaboration by creating and maintaining various partnerships with institutions, associations, and local communities, involving stakeholders in the questions relevant for HEP Group in various ways and by participating in policy development. Furthermore, we pay special attention to the responsibility of marketing communications and our disclosures on impacts.

> Stakeholders assess that HEP Group has significant social impacts, with 83.06 of them evaluated this set of material topics as important or extremely important. The most important topic is health and safety in the workplace: one third of stakeholders assigns it the most important level, while other 67 percent consider it as the most important topic in

holders accentuate this topic as the area in which HEP Group successfully manages its impacts (72 percent). The growth of importance of stakeholder engagement and collaboration is noticed, because 85 percent of stakeholders consider this topic important or extremely important, while 72 percent of stakeholders express their satisfaction about HEP Group's management of the topic. However, material topics in the social segment are evaluated with minor differences. Even 75 percent of stakeholders think that HEP Group manages community investments successfully. About one fifth of stakeholders suggest that HEP Group should invest more effort in managing the workplace development to advance its position of an attractive employer. Stakeholders are the least acquainted with the topic of diversity and inclusion, which is understandable, since this topic is strongly internalized, but with a growing interest by stakeholders. However, the internal stakeholders assess this area as the least developed, which indicates the necessity to strengthen activities.

Stakeholders' assessment of the importance of material topics in relation to the management activity in social impacts



Dialogue with social partners

Economic and governance impacts comprises the largest scope of material topics, even 12: investment planning, diversified generation mix, reliable distribution systems, ensuring national critical infrastructure, RES investments, revitalization of generation facilities and network, strategic planning, responsible corporate governance, new market models, EU and other institutional sources of finance, synergy effects in business, and risk management.

Stability and security are primarily reflected in developing capital investment, ensuring distribution and responsible portfolio management. This material topic is embedded in all our strategic goals, but the most expressively in sustainable and flexible energy portfolio and ensuring diversified generation mix. The reliability of distribution systems is recognized by our stakeholders as a topic that ensures stability. Additionally, as the largest energy group in the country, we ensure the national critical infrastructure. We manage risks within this material area by responsible adapting to regulatory and legal provisions and responsible management by which we create better conditions for all our customers. We continuously advance and modernize our operations to ensure high quality and secure generation, distribution, and supply of energy. More than 50 percent successful business is reflected

installed capacity for electricity generation is in our hydropower plants, which renders the generation system very dependable on hydrologic conditions. A part of hydropower plants has accumulations, which enables them to optimize the use of the water potential during the year. Diversification of our generation portfolio is critically important to mitigate this risk, as is developing intensive investment in renewable energy sources.

Sustainable construction and energy sector development are closely connected with the previous material area. They are based on strengthening own generation and planning and development of new projects. By developing sustainable construction, we impact the development of local communities, incite community investment, influence economic dynamics, and enable the development of critical infrastructure. HEP Group actively manages this topic, which was especially visible in 2020 by intensive development of electricity generation from renewable energy sources.

Successful and profitable business is part of the HEP Group 2030 strategic goals. Successful management within this material area comprises long-term investment planning, adequate response to dynamic changes in regulations and changes in purchase prices. Furthermore,

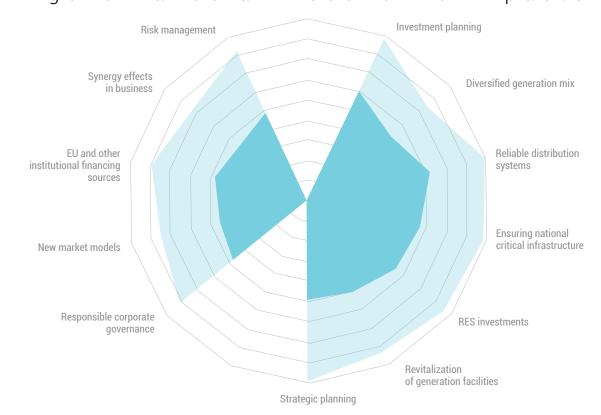
in responsible corporate governance and utilization of Group synergies. As one of financially most significant business organizations in the country, being fully state-owned, HEP Group is aware of its strategic importance for Croatia. Risks in the domain of successful and profitable business are largely generated in the framework responsible to ensure sustainable business to companies, such as legal or regulatory provisions or other standards and expectations from stakeholders. We invest efforts to manage such risks by timely recognizing our opportunities. Responsible governance and operations ensure positive financial result. Having in mind the size of HEP Group. our positive financial results directly impacts the realization of profit for the owner, economic development, GDP growth, positive employment trends and local community development. Planning the construction of new generation facilities always includes potential risks of realization, mostly connected with the investment conditions in the country, the direction of development and integration of Croatian energy market into the common European market, and macroeconomic, regulatory, and other factors influencing the feasibility and investment attractivity of such projects, which HEP Group cannot influence. HEP Group mitigates these risks by providing flexible plans, which enables us to adapt the realization of planned investment projects, according to their priorities for the stability of energy system and customer supply.

Most stakeholders (89 perconsider this material area important or very important. Stakeholders assign the largest importance to strategic planning, while 98 percent of stakeholders assign high importance to the investments in renewable sources of energy. Stakeholders consider the ment approach to the segment in managing these topics.

reliable distribution systems and revitalization of generation facilities and network as important (over 95 percent of stakeholders highly prioritize these three topics). Considerable proportion of stakeholders assess management of reliable distribution systems (47%) and ensuring nationally critical infrastructure (44%) as very successful. Stakeholders are less acquainted with the manage-

topics of investment planning, of risk management in HEP Group or the utilization of synergy effects in business, with more than one fourth of them unable to evaluate HEP Group activity in these areas. Stakeholders are the most critical in topics: strategic planning, development of new market models and corporate governance. Between one fourth and one third of stakeholders recognize that HEP Group should invest more dynamic and active efforts

Stakeholders' assessment of the importance of material topics in relation to the management activity in governance and economic impacts



Continuous market development and competitiveness on domestic and international mar**kets** is the fourth set of material topics that stakeholders assess as significant impacts by HEP Group. This area comprises the following material topics: development of products and services, customer trust, purchase power and energy poverty, responsible supply chain, prices of energy, and innovation and digitalization.

By managing this segment, HEP Group realizes market and economic sustainability. Energy markets change rapidly due to technological, industrial and infrastructure development, but also by changes in social trends and customers' habits. On a liberalized market, it is extremely important to win and keep customers' trust, be capable of agile adaptation to new trends and responsibly approach pricing policies.

Market risks that HEP Group can manage primarily relate to adaptations to new regulations and market trends, but also to our own capabilities to adequately respond to those ad-

aptations and trends. Having in our business operations in the mind that HEP Group, due to the wide spectrum of its sectors, reaches to all households and businesses, customer relations advancement is vitally important to us, especially in educating market on responsible consumption, energy efficiency and potential savings. Risks related to the prices of fuels for energy generation, prices of electric energy purchased on the market and prices of carbon emissions units are managed by timely contracting on the market.

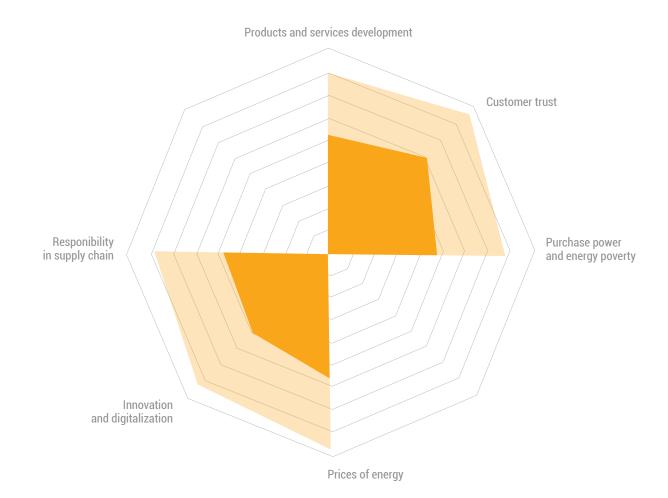
HEP Group manages risks related to market shares by creating new products and services, brand strengthening, marketing communications and by fostering customer relations. Special risk is emergence of energy poverty, which we manage by bringing adequate measures and participating in various projects which ameliorate the consequences. We respond to the challenges of the liberalized market by exploring opportunities of various models of business expansion, as well as positioning HEP Group as regional energy leader and by expanding

region.

HEP Group has significant im-

pacts in this material area. as evaluated by 88 percent of stakeholders. More than 90 percent of them consider customer trust and energy prices the topics of the highest importance. However, other topics are also highly evaluated as significant for HEP Group impacts on stakeholders. It is not surprising that stakeholders are least acquainted with HEP Group impact in the supply chain, because their insights into this topic are not significant. This, however, is an indicator that disclosures on impacts in supply chain should be more substantial. Evaluations of success and activity of managing this area are somewhat lower than in other areas. Managing customer trust stands out, because 77 percent of stakeholders think that HEP Group manages this topic successfully. Stakeholders assess that certain improvements are possible in innovation and digitalization and in managing purchase power and energy poverty

Stakeholders' assessment of the importance of material topics in relation to the management activity in market impacts



Two thirds of engaged stakeholders have read HEP Group

esting information on business stakeholders. The report could operations and sustainability of be improved by more precise sustainability reports. In their HEP Group, that it is clear and descriptions of impacts, hold 18 opinion, the report offers inter- comprehensible and useful for

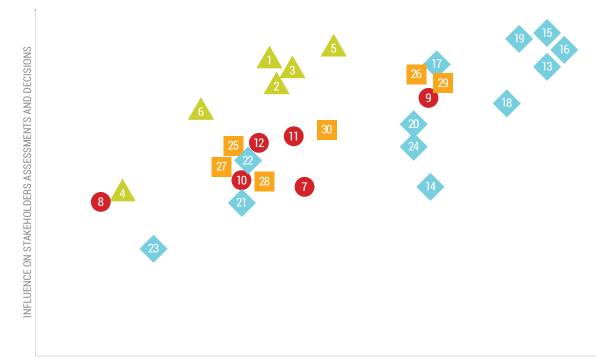
percent of stakeholders.

Materiality matrix

Comparable indicators of materiality, i.e. stakeholders' insights into the importance of economic, environmental, and social impacts of HEP Group and impacts of material topics on stakeholders' assessments and decisions is presented in the materiality matrix. It was developed in accordance with GRI requirements and is a result of stakeholder engagement.

According to the opinions of our to all relevant indicators within stakeholders, certain material governance, environmental and social impacts of HEP Group have versatile importance in relation to their decisions and assessments. Materiality matrix helped us to determine the boundaries of sustainability report. Thematic chapters of this report comprise data according

the boundaries. Thematic chapters also contain descriptions of various projects and activities undertaken by HEP Group, which reflect our approach in managing material topics and developing sustainability and responsibility.



SIGNIFICANCE OF ENVIRONMENTAL, SOCIAL, GOVERNANCE AND ECONOMIC IMPACTS



- 1. Climate change mitigation 2. Climate change adaptation
- 3. The sustainable use and protection of water and marine resources
- 4. The transition to a circular economy
- 5. Pollution prevention and control
- 6. The protection and restoration of biodiversity and ecosystems

- Social topics
- Attractive employer
- 8. Diversity and inclusion 9. Safe and healthy
- workplace 10. Dialogue with
- social partners Stakeholder
 - engagement and collaboration
 - **12**. Community investments 19. Strategic planning

- Governance and economic topics
 - 13. Investment planning
- 14. Diversified generation mix 15. Reliable distribution
 - systems 16. Ensuring national
 - critical infrastructure
 - 17. RES investments
 - 18. Revitalization of generation facilities

 - 20. Responsible corporate governance
 - 21. New market models
 - 22. EU and other institutional financing sources
 - 23. Synergy effects in business
 - 24. Risk management

Market topics

- 25. Products and services development
- 26. Customer trust
- 27. Purchase power and energy poverty
- 28. Responibility in supply chain
- 29. Prices of energy



Stakeholders' opinions on HEP Group progress in sustainable development and recommendations for improvements

In the process of stakeholder engagement, we gathered their impressions and expert the goals of EU Taxonomy and opinions related to HEP Group practices in sustainability reporting as well as their comments on the developments in stakeholder relations. Most stakeholders commended the quality of sustainable report, its extensiveness and relevance and stated that the report was well-structured and useful for informing stakeholders. Stakeholders recognized some areas of improvement: in the description of management approach, more precise presentation of goals and risks stemming from the business operations of HEP Group to its stakeholders. Since some stakeholders expressed the necessity to present more details on impacts on climate, we connected the environmen-

tal impacts in the chapter on environmental management with in this way we ensured more detailed indicators.

Considering stakeholder relations, the stakeholders express their satisfaction with the collaboration (mostly institutional) with HEP Group. Some stakeholders express their desire that HEP Group involves scientific and academic community more intensively in research projects directed at planning and development. The issue of fast technological development, requiring dynamic digitalization, was accentuated. Business and market stakeholders suggested that HEP Group regularly communicates its mid-term and long-term plans of infrastructure development and modernization, so they could also adapt

their own investment plans. Some stakeholders consider that HEP can contribute to development of national guidelines for the Green Plan implementation and digitalization of energy sector as well as participate more actively in strategic planning of utilization of EU funding. Stakeholders suggest improvements in customer relations segment, digital approach, and advanced communication in digital channels. Many stakeholders recognize the potential of HEP Group in the development of multi-sectoral dialogue on sustainable development and participation in sustainable and responsible initiatives, so that the contributions to the global goals' realizations are facilitated.



SHAREHOLDER'S REPRESENTATIVES:

General Assembly, Supervisory Board

STATE BODIES

Government of the Republic of Croatia, Ministry of Economy and Sustainable Development, Ministry of Physical Planning, Construction and State Assets; Ministry of Finance; Croatian Parliament; Environmental Protection and Energy Efficiency Fund; Croatian Water Management Company, Croatian Parliament

REGULATORY BODIES:

Croatian Energy Regulatory Agency (HERA), Croatian Competition Agency (AZTN), Croatian Financial Services Supervisory Agency (HANFA)

CAPITAL MARKETS:

investors, creditors, investment partners, rating agencies, Zagreb Stock Exchange

Croatian Energy Market Operator (HROTE), commercial customers, residential customers, competition, business partners, suppliers, CROPEX and other energy exchange and emissions trading exchange

LOCAL COMMUNITIES:

counties, cities, municipalities

INTERNAL STAKEHOLDERS:

employees, managers, unions, workers' councils, HEP war veteran association, HEP pensioners association

ACADEMIC AND SCIENTIFIC INSTITUTIONS:

universities, scientific institutes, secondary schools

ASSOCIATIONS (NATIONAL AND INTERNATIONAL)

expert associations, interest associations, Croatian Chamber of Economy

CIVIL SECTOR:

consumer protection associations, environmental NGOs. and other civil sector associations

MEDIA:

national, local, expert



Materiality in the context of global sustainability goals

Having in mind partial modifications in material topics, we reconsidered potential contributions of HEP Group to the realization of UN sustainable development goals.

and with the selected targets gets: which we can connect with indicators.

The potentials of contributions In conducting its business opto particular goals relate to ma- erations, HEP Group contributes terial areas and the strategic to the realization of the followgoals of HEP Group until 2030, ing sustainability goals and tar-



Quality education:

Ensure inclusive and equitable education and promote lifelong learning opportunities for all

4.4 substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship

Contribution to the realization of this goal is reflected in this material area: Stakeholder dialogue, transparent communication and public education



Gender equality:

Achieve gender equality and empower all women and girls

5.5 ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life

Contribution to the realization of this goal is reflected in this material area: Responsible, sustainable and quality significant employer



Affordable and clean energy:

ensure access to affordable, reliable, sustainable, and modern energy for all

- 7.1 ensure universal access to affordable, reliable, and modern energy services
- 7.2 increase substantially the share of renewable energy in the global energy mix
- 7.3 double the global rate of improvement in energy efficiency

7a enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology

Contributions to the realization of this goal is reflected in these material areas: Sustainable construction and energy sector development Stability and security of generation, distribution, and supply of energy



Decent work and economic growth:

promote sustained, inclusive, and sustainable economic growth, full and productive employment and decent work for all

- 8.2 achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high value added and labor-intensive sectors
- 8.5 achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of
- 8.8 protect labor rights and promote safe and secure working environments for all workers

Contributions to the realization of this goal is reflected in these material areas: Successful and profitable business Responsible, sustainable, and quality significant employer

5



Industry, innovation, infrastructure:

build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

- 9.1 develop quality, reliable, sustainable, and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all
- 9.4 upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities
- 9.5 enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending

Contributions to the realization of this goal is reflected in these material areas: Stability and security of generation, distribution, and supply of energy Sustainable construction and the development of energy sector



Sustainable cities and communities:

make cities and human settlements inclusive, safe, resilient, and sustainable

- 11.3 enhance inclusive and sustainable urbanization and capacity for participatory, integrated, and sustainable human settlement planning and management in all countries
- 11.4 strengthen efforts to protect and safeguard the world's cultural and natural heritage
- 11 a support positive economic, social, and environmental links between urban, per-urban and rural areas by strengthening national and regional development planning
- 11 b substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels

Contributions to the realization of this goal is reflected in these material areas: Continuous market development and competitiveness on national and regional markets Stability and security of generation, distribution, and supply of energy



Responsible consumption and production:

ensure sustainable consumption and production

- 12.2 achieve the sustainable management and efficient use of natural resources
- 12.4 achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment
- 12.5 substantially reduce waste generation through prevention, reduction, recycling, and reuse
- 12.6 encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle
- 12.7 promote public procurement practices that are sustainable, in accordance with national policies and priorities
- 12.8 ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature

Contributions to the realization of this goal is reflected in these material areas:

Investments in sustainable environmental protection and responsible management of environmental impacts

Continuous market development and competitiveness on national and international markets

Stakeholder dialogue and transparent communication and stakeholder education



Climate action:

take urgent action to combat climate change and its impacts

- 13.1 strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries
- 13.3 improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning

Contributions to the realization of this goal is reflected in these material areas: Investing in sustainable environmental protection and responsible environmental impacts management

Sustainable construction and the development of energy sector Stakeholder dialogue and transparent communication and stakeholder education



Life below water:

conserve and sustainably use the oceans, seas, and marine resources for sustainable development

14.1 prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution

14.2 sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans

Contributions to the realization of this goal is reflected in this material area: Investing in sustainable environmental protection and responsible environmental impacts management



Life on land:

protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

15.1 ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements

15.3 combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world

15.5 take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species

Contributions to the realization of this goal is reflected in these material areas: Investing in sustainable environmental protection and responsible environmental impacts management

Sustainable construction and the development of energy sector



Partnerships for the goals:

strengthen the means of implementation and revitalize the global partnership for sustainable development

17.16 enhance the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals in all countries, in particular developing countries

17.17 encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships

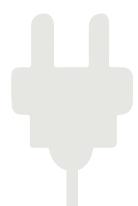
Contributions to the realization of this goal is reflected in this material area: Stakeholder dialogue and transparent communication and stakeholder education



Sustainable and flexible energy portfolio is achieved by investing in renewable energy sources, primarily wind farms and solar plants







Business environment and operations

HEP Group's operations in 2020 showed a high level of stability despite economic disturbances caused by the pandemic. The mission of HEP Group was fulfilled in 2020 due to our stable financial position, the strength of our brand, optimization of business processes and quality strategic management.



Despite the pandemic, which put a stop to some economic activities during the lockdown, the Group recorded good business results with a 27.4% increase in operating profit compared to 2019. Net profit of HRK 1.46 bn was generated, which was by HRK 61.1 million (4.4%) more compared to the 2019 net profit of HRK 1.4 billion. Said profit was earned from electricity and gas, while heating energy operations experienced loss.

The global health crisis caused by the pandemic affected the economies in most countries, Croatia included. Countries had to undertake a number of measures for mitigating economic effects of said pandemic, which

decline of the Croatian economy since mid-March 2020.

According to the first estimated figures published by the Croatian Bureau of Statistics, total gross domestic product in 2020 decreased in real terms by 8.4 percent compared to the 2019 figures. The Croatian economy experienced the sharpest annual decline compared to the surrounding countries, which was the effect of a decreased demand by households at a 7.5% annual drop rate. Measeconomic activity and of the movement of people resulted in a decline of industrial produclargest decline in industrial pro-

sumer goods. Production experienced a declining trend in other sectors as well, but at much lower rates. The average annual inflation rate for 2020 was 0.1 percent, which was 0.7 percentage points (p.p.) less than in 2019. The average registered unemployment rate in 2020 was 9 percent, an increase of 1.2 percentage points compared to 2019. Despite the pandemic, the growth of nominal and real paid net and gross wages continued in 2020.

ures aimed at the restriction of The onset of the pandemic affected financial markets very guickly. The kuna/euro exchange rate trend underwent tion by 3.4 percent, while the a relatively wide range. From below HRK 7.45 per euro at the duction (14.1%) was recorded in end of February, the kuna/euro was the primary cause of the the production of durable con- exchange rate exceeded HRK 7.6 per euro at the end of March, thus reaching the levels last recorded in March 2016. The average kuna/euro exchange rate for 2020 was 7.53, which was an increase of 1.6 percent compared to 7.41 in 2019. The average kuna/US\$ exchange rate was 6.61, a slight decrease (0.2 percent) compared to 2019.

The devastating earthquake that hit Zagreb on 22 March caused damage and 2020 breakdowns to the electricitv and heating network and to EL-TO CCPP Zagreb. In light of the exceptional efforts of HEP employees, the supply of electricity and heat to customers in the Zagreb area was normalized in a short period of time. The earthquake that hit Petrinia and central Croatia on 29 December 2020 caused numerous breakdowns and damage to the electric power network and HEP's facilities for the production of electricity and heat. 238 substations were destroyed or severely damaged, and significant damage was caused to the distribution network. Almost 150,000 users were left without electricity.

Among other external factors that affect HEP's operations, the

prices of electricity, energy fuels and carbon dioxide emission units stand out. The price of oil at the end of 2019 was USD 61.2 per barrel. Since March 2020, the cessation of economic activity in the world due to the pandemic has affected the decline in oil demand, and the price of oil in April reached the lowest value of USD 17.1 per barrel. During the rest of the year, after the lockdown had ended, the price rose slightly to USD 48.41 per barrel at the end of the year but remained 25 to 30 percent lower than in 2019 due to the effects of the pandemic. The average price of electricity on the futures market at HUDEX1 in 2020 for one year in advance amounted to 54.02 EUR/MWh, a decrease of 14.1 percent compared to 2019 when the price was 62.88 EUR MWh. In the first guarter of 2020, the average price of base electricity was 52.77 EUR/MWh, followed by 29.29 EUR/MWh in the second, 41.38 EUR/MWh in the third, and 46.55 EUR/MWh in the fourth. At the end of 2020, the price of gas on the spot market² of the CEGH³ gas exchange was 17.05 EUR/MWh, an increase of 35.7 percent compared to the end of 2019, when the gas price

of CO₂4 on the EEX5 spot market at the end of 2020 amounted to 32.04 EUR/t. an increase of 28.5 percent compared to the end of 2019 when it was 24.93 EUR/t. The price of coal⁶ at the end of 2019 was 45.55 USD/t and stagnated until the end of March 2020, when as a consequence of the pandemic, it dropped to its lowest value of 34.05 USD/t. Afterwards, it generally continued its growth trend, reaching 69 USD/t at the end of 2020, an increase of 51.5 percent compared to late 2019.

The pandemic greatly affected the slowdown of the Croatian economy, and consequently electricity demand. HEP sold 13.9 TWh of electricity to domestic customers (1 TWh less than in 2020), and 2.2 TWh of electricity (1.1 TWh less than in 2019) in the neighboring markets. Revenues from electricity sales in Croatia decreased by HRK 1 billion (5.2%) as a result of lower electricity consumption since mid-March 2020 as well as lower sales prices for HEP Elektra customers with the quaranteed supply, while the average sales price for HEP Opskrba business customers increased. At the same time, due was 12.56 EUR/MWh. The price to lower electricity demand and

a change in demand structure The year 2020 was marked since the second half of March 2020, revenues from the use of the transmission and distribution network decreased. The market share in the supply of electricity to domestic customers was 90.4 percent. Revenues from the sale of electricity abroad decreased as a result of 621 GWh of electricity sold to Elektroprivreda Hrvatske zajednice Herceg-Bosne in 2019, lower exports of surplus electricity produced in HEP Group power plants, resale and decreased supply of customers in the region due to lower consumption and a loss of market share. Activities in the regional markets continued, especially in Slovenia, where we supply a number of large customers.

In 2020, HEP provided 18.7 TWh of electricity for the supply of customers, sales abroad, losses in the transmission and distribution network, pumping operations and demand by own power plants, i.e. 9.7 percent less than in 2019, of which 12.5 TWh (67%) was produced in power plants owned and partially owned by HEP Group, while the remaining percentage was procured on the market and purchased from the Croatian electricity market operator (mandatory purchase from the incentivized renewable sources and high-efficiency cogenerations).

by reduced water inflows in the first eight months and above-average hydrological conditions in the last quarter. A total of 5.3 TWh was produced in hydropower plants, which was by 511 GWh (8.7%) less than in 2019, while the production of thermal power plants increased by 364 GWh (9.8%). In 2020, Krško nuclear power plant and HEP's solar and biomass cogeneration plants produced 3 TWh and 26 GWh, respectively. In June 2020, HEP's first wind farm, Korlat, started trial operation, producing 52 GWh by the end of the year.

6.2 TWh of electricity was purchased on the market (including purchase from renewable sources and high-efficiency cogeneration), 2.1 TWh (25.5%) less than in 2019 (due to lower demand and a reduction of mandatory purchase from HROTE from 70% to 40% as of 1 January 2020), which, together with a lower average import price, led to a reduction in electricity purchase costs by HRK 1.1 billion (31.8%). Energy fuel million (11.2%), which can be tion network of the Municipality attributed to lower average pricprice of natural gas was lower by 24.7 percent, of coal by 24 percent, and of forest biomass

and Sisak CHPs by 8.2 percent. In addition, coal and forest biomass consumption was 25 and 12 percent lower, respectively, while natural gas consumption increased by 25 percent.

HEP d.d. continued to carry out the activity of the gas wholesale supplier in 20207. On 14 February 2020, the Management Board of Hrvatska elektroprivreda d.d. decided to reduce the gas wholesale price for the period from 1 April 2020 to 31 March 2021 by 5.1 percent (from 0.1924 HRK/kWh to 0.1825 HRK/kWh).

Total revenues from gas sales decreased by HRK 441.4 million (32.6%) due to a 46 percent lower wholesale gas sales volume, primarily due to a decrease in the number of public service suppliers who opted for HEP d.d. as their gas supplier (as of 1 April 2020, 8 suppliers with whom HEP d.d. concluded a gas supply contract compared to 32 in 2019). Revenues from gas sales in the retail market increased due to the acquisition of new companies. In 2020, 52.5 costs decreased by HRK 190.2 kilometers of the gas distribuof Bizovac was purchased, while es of all energy fuels. The unit PPD - distribucija plina d.o.o. (gas distribution company) and PPD – opskrba kućanstava d.o.o. (household supply comfor production in BE-TO Osijek pany) from Vukovar were taken

¹ Hungarian Derivative Energy Exchange

² Day Ahead Market

³ Central European Gas Hub

⁴ European Emission Allowances - EUA

⁵ European Energy Exchange

⁶ https://markets.businessinsider.com/commodities/coal-price

⁷ Under the decision of the Croatian Energy Regulatory Agency (HERA) of 28 October 2019, Hrvatska elektroprivreda d.d. was appointed a supplier on the wholesale gas market for the period from 1 April 2020 to 31 March 2021

over. With these acquisitions, HEP Plin confirmed the position of one of the leading gas distributors and suppliers, which at the end of 2020 supplied 93 thousand customers and operated almost 4,000 kilometers of the gas distribution network. HEP will continue with the acquisition of the gas network owned by local self-government units and other companies engaged in gas distribution and supply.

Revenues from heat sales increased by 2.9 percent as a result of a 5.3 percent higher consumption due to colder weather in the last quarter of 2020.

Other operating income increased by 32.9 percent compared to 2019. The biggest increase is in income from the collected written-off and reserved receivables from the collected gas receivables of HRK 326 million paid by Petrokemija d.d. in 2020, HEP's gas customer in 2019.

Compared to 2019, the cost of staff increased by 5.7 percent due to the implementation of the new Collective Agreement from 1 January 2020 and the new employment contracts. At the end of 2020, HEP Group had 11,668 employees, 148 more than at the end of 2019.

A loss of HRK 344.4 million was recorded from financial activities compared to a profit of HRK

24 million in 2019. In financial expenses, the change in the fair value of the inter-currency swap for bonds issued in 2015 (HRK 215.9 million) and interest expenses (HRK 179.5 million) accounts for its major part, while foreign exchange gains account for a major part of financial in-

Throughout the year, all due liabilities were settled within the due date. The Group ended the business year with HRK 3.51 billion in cash and cash equivalents, which was an increase of HRK 162.3 million (4.8%) compared to the end of 2019. In 2020, HEP also repurchased its own bonds issued on the international capital market8. A dividend from the 2019 profit in the amount of HRK 664.4 million was paid to the State Budget.

In late October 2020, Standard & Poor's upgraded the company's rating outlook from stable to positive while affirming its stand-alone credit profile (bb+) as well as its long-term credit rating (BB+). In its report, S&P stated that HEP continued to achieve exceptional financial results during the times of COVID-19 pandemic, the trend which was expected to continue until the end of the year. In November 2020, Moody's upgraded HEP's long-term credit rating from Ba2 to Ba1 with a stable outlook as well as HEP's standalone credit profile to ba1. In its report, Moody's stated that said upgrade reflected the expectation of HEP retaining its strong financial profile in line with its good financial performance during last several years, and of retaining strong credit metrics in the future.

Emerging on a century-old tradition. Hrvatska elektroprivreda still keeps pace with modern knowledge, technologies and achievements, at the European and global level. This is evidenced by numerous investment projects, from hydropower plants, high-efficiency cogeneration, solar power plants, wind farms, the introduction of the smart network concept, energy efficiency projects and electromobility development. All these projects confirm a clear direction of development and decisiveness in the implementation of the development strategy until 2030. Through their implementation, as well as continuous business improvement, HEP strives to be a highly competitive and successful company, the leader of the energy transition, the driver of the Croatian economy and the support to the Government of the Republic of Croatia in implementing strategic goals of energy and economy. HEP Group was one of the largest investors in Croatia in 2020, with investments of HRK

4.34 billion, which includes HRK 218.5 million of investments by NPP Krško. Due to favorable business conditions, there was no need to contract new longterm loans to finance investments, which were financed by HEP's own funds, EU funds and the EBRD and EIB loans (construction of the EL-TO Zagreb CCPP).

The construction of the 150 MWe /114 MWh combined cogeneration unit in EL-TO Zagreb CCPP continued after having commenced in late 2019. This HRK 900 m investment will provide a long-term safe supply of heat to 80,000 citizens of the west part of Zagreb as well as the supply of process steam to business customers.

The construction of the HRK 3.4 bn Hydropower System Senj 2 project (HPS Kosinj/HPP Senj2) is HEP's biggest project from Croatia's independence, which will result in 412 MW of increased capacity. After adopting the investment decision for HPS Kosini in 2019, the first construction works commenced in 2020. Project delivery will intensify by commencing the hydro-technical facilities-related works in 2021.

Following the rehabilitation completion of Dubrovnik hydro power plant, which was damaged in a fire on 10 January 2019, Unit B was put into operation at the end of February 2020

followed by the commissioning of Unit A in March 2020, having completed the generator and turbine equipment overhaul.

The cycle of HEP Group's significant investments in renewable energy sources has been intensified. In June, HEP's first wind farm, 58 MW Korlat with planned annual production of 170 GWh, was put into trial operation, while the development of a solar power plant at the same location continued. The largest solar power plant in Croatia was put into operation in September: 3.5 MW Vis Solar Power Plant with planned annual production of 5 GWh. By putting this solar power plant into operation, the island of Vis got its own source of renewable energy as well as a greater security of electricity supply, especially in periods of increased demand during the tourist season. Next to Vis Solar Power Plant, a 1 MW/1.44 MWh battery tank will be installed, which will be used for the provision of electric power system balancing services and the maintenance of the network stability on the island.

6.5 MW Cres Solar Power Plant (SE Cres) with the planned annual electricity production of about 8.5 GWh is under construction. SE Cres will contribute to the strengthening of the security of electricity supply and increasing the level of energy

in periods of increased demand during tourist seasons. In addition to SE Cres, investments are being made in 1 MW Marići Solar Power Plant near Žmini and the second phase of 2 MW Kaštelir Solar Power Plant in the hinterland of Poreč. Both solar power plants, as well as Cres and Vis, will produce electricity on a fully competitive basis, without incentives. With the aim of accelerating the execution of our renewable development scenario, solar power plant projects are also being developed in cooperation with municipalities and cities.

The project of building an LNG terminal on the island of Krk has been completed, the aim of which is to ensure a new natural gas supply route and diversify natural gas supply routes and sources on the market of the Republic of Croatia and the European Union, which will significantly influence the security of natural gas supply.

The work has begun on the construction of a static VAR compensator (SVC) as part of the EU SINCRO.GRID smart network project. This is the most innovative project of the European Commission in the field of smart networks, in which the Croatian Slovenian transmission and distribution system operators take part. The project is co-financed from the European self-sufficiency of the islands Fund for Strategic Investments of Cres and Lošinj, especially in the amount of EUR 40.5 mil-

⁸ Eurobonds issued in 2015 in the amount of USD 550 m

lion, while its total value reaches almost EUR 90 million. Investments in Croatia amount to HRK ing the total value of the smart 200 million. Four key project units are planned for Croatia, and the works on one of them, Konjsko substation, the biggest transmission network facility in Dalmatia, began in mid-2020. The SINCRO.GRID project will, among others, enable a more efficient integration of renewable energy sources.

The introduction of smart networks pilot project, co-financed by EU funds, has been launched. The total value of the project 700 million, of which HRK 421.5 is HRK 176.8 million, of which the European Regional Development Fund grants, awarded Fund grants. This is the largest under the Operational Program "Competitiveness and Cohesion 2014-2020" account for 85 percent. In addition, HEP DSO

will invest an additional HRK 52 million of its own funds reachnetworks' investment of almost HRK 230 million.

At the end of the year, HEP District Heating signed the Grant Agreement, awarded within the Operational Program "Competitiveness and Cohesion 2014-2020", under which the co-funding of the revitalization of 68.5 kilometers of the hot water network in the city of Zagreb was secured. The total value of said project is HRK million is financed by the European Regional Development amount allocated to HEP from the EU funds to-date.

The implementation of measures and the preparation of pro-

jects aimed at energy efficiency increase has been intensified. The implementation of the eMobility project, co-financed by EU funds, has continued. By the end of 2020, there were more than 200 EV charging stations and over 40 charging stations for the needs of our own fleet throughout Croatia.

Equipment was being replaced on an ongoing basis as well as the reconstructions and refurbishments of the existing generation facilities and of the transmission and distribution network carried out primarily by engaging domestic producers and contractors.

Financial performance

According to financial indicators, **HEP Group is one of the biggest** business groups in the Republic of Croatia.

In 2020, the Group generated operating profit of HRK 2,158.8 m, an increase by HRK 464.5 m (27.4%) compared to 2019 primarily due to a decrease of variable operating cost and despite lower generated income. Financial activities generated loss of HRK 344.4 m compared to the profit of HRK 24 m generated from financial activities in 2019. Net profit of HEP Group amounted to HRK 1,463.8 m, of which to equity owners, and the loss of HRK 1.4 m to non-controlling interest.

primarily as a result of decreased income from the sale of electricity by HRK 1,040.1 m m as a result of collected written-off receivables for gas sold creased.

HRK 1,465.1 m was attributable to a domestic industrial cus-

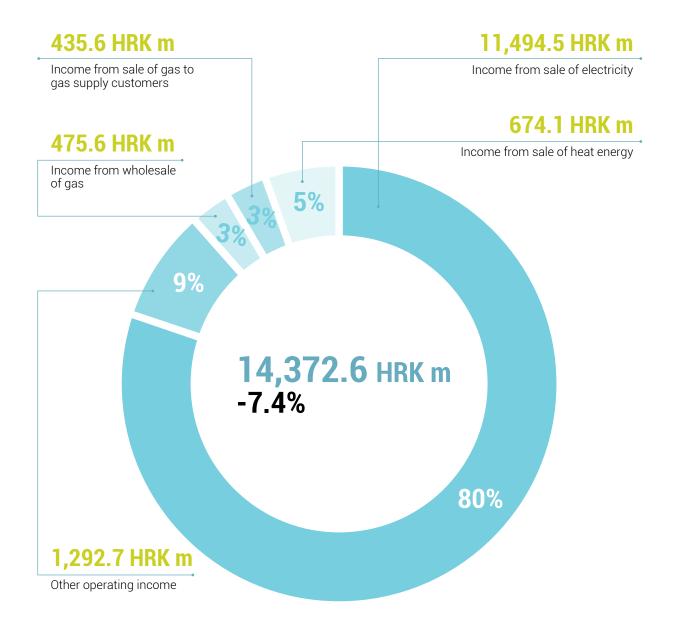
Operating expenses of HRK 12,213.8 m decreased by HRK Operating income of HRK 1,607.1 m compared to 2019. 14,372.6 m decreased by HRK This decrease was the effect of 1,142.7 m compared to 2019, a lower purchase cost of electricity (31.8%) as the result of decreased market-based electricity purchase for customer (8.3%), and income from the sale supply and trade, lower purof wholesale gas by HRK 496.2 chase value of gas (40.6%), and m (51.1%), while other operating lower gas cost (11.2%), while income increased by HRK 319.9 the cost of amortization (6.9%) and the cost of staff (5.7%) in-

Consolidated profit and loss account	2019	2020	2020-2019	%2020
(abridged)	HRK m	HRK m	HRK m	/2019
Operating income	15,515.2	14,372.6	-1,142.7	-7.4%
Operating expenses	13,820.9	12,213.8	-1,607.1	-11.6%
Profit from operations	1,694.3	2,158.8	+464.5	+27.4%
Net profit of the Group	1,402.6	1,463.8	+61.1	+4.4%
Net profit attributable to owners of the parent	1,404.0	1,465.1	+61.1	+4.4%

Operating income

In 2020, the Group generated by HRK 1,142.7 m (7.4%) comoperating income in the amount pared to 2019, primarily due to of electricity and wholesale gas. of HRK 14.372.6 m. a decrease

decreased income from the sale



Operating income structure (HRK m) and its share in overall operating income (%)

The Group earned 80% of its by HRK 167.2 million. Income Income from the sale of gas to operating income (HRK 11.5 bn) from the sale of electricity. A 8.3% decrease (HRK 1,040.1 m) compared to the year before was the result of reduced electricity demand by business customers as a consequence of implemented epidemiological measures aimed at the prevention of the spread of the new coronavirus (COVID-19) which led to the stopping of some economic activities.

Income from the sale of elec-

tricity to customers in Croatia decreased by 5.2% as a result of a reduced volume of sold electricity. The average price of electricity for business customers of HEP Opskrba increased by 4.3%, the average price excluding the charge for network use for universal service customers and HEP Opskrba household customers rose by 1.8% and 0.5%, respectively, while the price for customers under guaranteed service decreased by 6.8%. In light of the implementation of the Regulation passed by the Ministry of Economy on the Criteria for Obtaining the Status of a Vulnerable Customer of Energy from Networked Systems (OG 95/2015) and the Decision adopted by the General Shareholders Assembly of HEP d.d., under which the electricity price for household customers did not change, the solidarity charge reduced HEP's income from the sale of electricity to households

from the use of the transmisresult of a lower electricity demand volume and the change in demand structure as of the second half of March 2020.

Income from the sale of electricity abroad decreased by 34.8 percent as a result of reduced income which was, in the same Income from the sale of heat period in 2019, generated from the sale of electricity to Elektroprivreda Hrvatske Zajednice cent of operating income. This Herceg-Bosne, of decreased HRK 19 million increase was the export of electricity surplus result of a 5.3 percent higher abroad along with lower prices of exported electricity and a lower supply volume for customers in the region.

been the wholesale gas suphouseholds as part of the pubper the above, the Group genoperating revenue. This reprem compared to 2019 as a result service suppliers which opted for HEP d.d. as their gas supplier (from 32 to 8) and lower selling price as of 1 April 2020.

end customers amounted to sion and distribution network HRK 435.6 m accounting for 3 decreased by HRK 235.2 m as a percent of operating income, an increase by HRK 54.8 m compared to 2019 as the result of increased gas sale (20.6%) due to a merger of three companies and increased sale to business customers in other distribution areas by 57 percent.

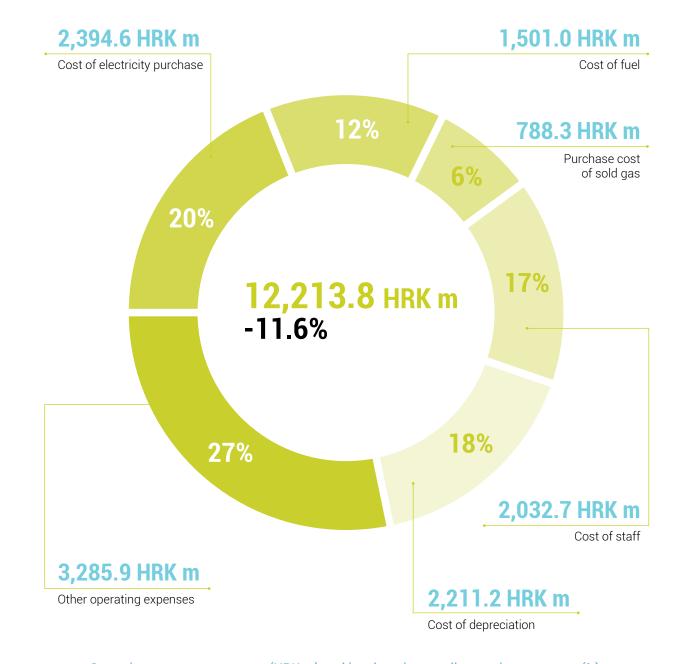
> energy amounted to HRK 674.1 m, which accounted for 5 perdemand at a 2.3 percent lower average selling price.

Other operating income of HRK 1,292.7 m increased overall by As of 1 April 2014, HEP d.d. has HRK 319.9 m (32.9%) compared to the year before as the result plier including the sale of gas of the collected written-off reto suppliers that supply gas to ceivables for gas sold to a domestic industrial customer in lic service. Pursuant to HERA's the amount of HRK 326 m, the decision from October 2020, income from chargeable servic-HEP shall carry out said ac- es of HRK 71.1 m, and the intivity until 31 March 2021. As come from assets financed from connection fees of HRK 18.4 m. erated income of HRK 475.6 m Income from the collected value accounting for 3 percent of its adjusted trade receivables decreased in light of not initiated sented a decrease of HRK 496.2 enforcement proceedings as planned, other operating income of a drop in the number of public generated by Krško NPP and income from cancelling long-term litigation provisions.



Operating expenses

The Group's operating expenses in 2020 decreased by HRK 1,607.1 m to HRK 12,213.8 million.



Operating expenses structure (HRK m) and its share in overall operating expenses (%)

Energy fuel for electricity and heat production and electricity purchase accounted for 32 percent of overall costs amounting to HRK 3,895.6 million. The cost of electricity purchase on the market decreased by HRK 1,114.3 m as a result of a lower electricity purchase volume for customer supply due to lower electricity demand and a reduced volume of purchased incentivized electricity, while the cost of energy fuel in 2020 decreased by HRK 190.2 m primarily as a result of lower coal and natural gas prices.

Electricity import decreased by 2.1 TWh at a 10.5% lower purchase price than in 2019. 655 GWh less electricity was purchased from incentivized eligible producers as a result of lowering the mandatory purchase volume of produced incentivized electricity from 70 to 40 percent. The electricity purchase from off-system producers and traders in Croatia increased by 407 GWh at a 6.1 percent lower price.

The cost of energy fuel decreased by HRK 190.2 million (11.2%) compared to 2019. Despite increased electricity production by 345 GWh and primarily the result of lower coal and natural gas prices. 25% less coal was used at the 24% lower price as well as 25.2% more natural gas at the 24.7 percent lower price. The cost of wood biomass used in the operation of BE-TO Osijek and BE-TO Sisak cogeneration plants dropped in light of the 12 percent less volume consumed and a 8.2% lower wood biomass price.

The purchase value of sold gas was HRK 788.3 million, a decrease by HRK 538.6 million (40.6%) compared to 2019 primarily as a result of the 46% decrease in sales.

The cost of staff amounted to HRK 2,032.7 m, an increase by HRK 110.4 million (5.7%) as a result of increased hiring in accordance with the adopted employment plans from 2019 and 2020 as well as a 3.23% increase in salary points as of 1 January 2020.

Compared to 2019, the 0.5% decrease of other operating ex-

penses was primarily due to value adjustment of trade receivaincreased natural gas demand, bles, severance provisions and lower energy fuel prices were jubilee awards, compensation of staff cost, cost of energy savings purchase as well as cost of chargeable services and materials. The cost of CO₂ emission increased by HRK 50.9 m due to a 9.9% higher price than in 2019 and an increased emission unit volume by 16 thousand tons. In addition, the cost of real estate, plant and equipment value adjustment increased.



Results by sectors

The major share of the Group's operating income (86.3%) was earned from electricity. The profit of HRK 1,945.3 m retained the 2019 level as a result of less sold electricity as well as lower variable costs.

corded operating loss of HRK tail gas in operating income 147.2 million. Compared to the accounted for 8.7 percent reyear before, the performance was better due to increased income from the sale of heat at a lower cost of energy fuel resulting from lower prices of fect of the collected written-off District heating accounted for natural gas and wood biomass. 5% of operating income and re- The share of wholesale and re-

.

cording HRK 360.7 million of operating profit compared to HRK 35.5 m of operating loss in 2019. The 2020 profit is the efreceivables for natural gas from a domestic customer.

Operating result in HRK m	electricity			heat				gas	
	2019	2020	%2020/ 2019	2019	2020	%2020/ 2019	2019	2020	%2020/ 2019
Operating income	13,422.8	12,400.6	-7.6%	718.3	722.4	0.6%	1,374.1	1,249.6	-9.1%
Operating expenses	11,478.5	10,455.4	-8.9%	932.8	869.6	-6.8%	1,409.6	888.9	-36.9%
Profit (loss) from operations	1,944.3	1,945.3	+0.05%	-214.5	-147.2	-31.4%	-35.5	360.7	

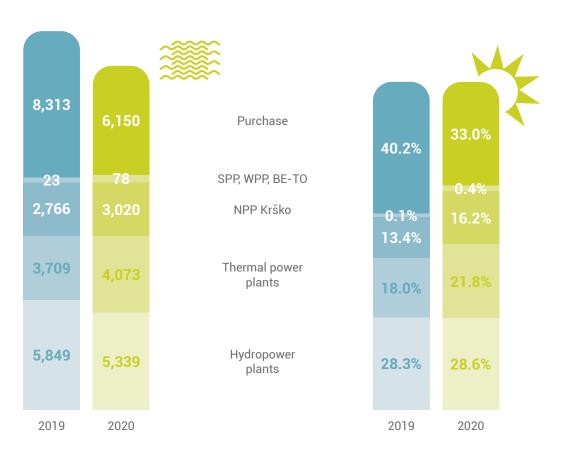
Electricity

mission, distribution and supply are activities carried out by HEP Group across the entire surplus electricity and resale. territory of Croatia. The Group In 2020, the operating profit of (HRK 10,639.9 m), and the sale is the biggest supplier of elec- HRK 1,945.3 m was generated, abroad for 7.4% (HRK 854.6 m). tricity in the Republic of Croatia with 13.9 TWh of electricity sold more than in 2019. domestically, and 2,216 GWh

Electricity generation, trans- more supplied to customers in Income from the sale of elec-Slovenia, Serbia, Bosnia and tricity totaled at HRK 11,494.5 Herzegovina and as export of m, of which the sale of domestic which was by HRK 0.9 million

customers accounted for 92.6%

AVAILABLE ELECTRICITY (GWh)



Note: In 2020, solar power plants (SPP) generated 3 GWh (in 2019 – 1 GWh), wind power plants (WPP) 52 GWh (in 2019 - 0 GWh), biomass cogeneration plants (BE-TO CHP) - 23 GWh (in 2019 - 22 GWh)

Power plants wholly or partially owned by the Group generated was by 162 GWh more than in 2019 accounting for 67% of the overall electricity demand by the Group in 2020.

The year 2020 was characterized by lower water inflows in the first eight months and the above average hydrology in the last quarter. At the end of the year, hydro generation accounted for 5.3 TWh (29% of electricity demand), a decrease by in total. 511 GWh (8.7%) compared to 2019.

Electricity generation in thermal power plants and cogeneration facilities increased by 364 GWh to 4,073 GWh, accounting for 22 sult of reduced electricity depercent of total energy demand in 2020. Krško nuclear power

SALE OF ELECTRICITY (GWh)

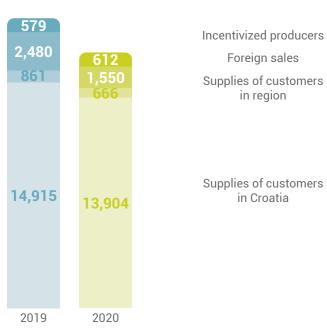
plant supplied 3,020 GWh, which was by 254 GWh more than in 12.5 TWh of electricity, which 2019 as the regular 18-month power plant overhaul was conducted in October 2019.

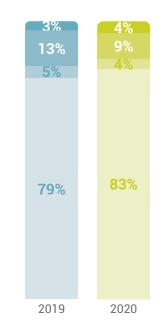
> Solar power plants generated 3 GWh. of which Vis Solar Power Plant accounts for 1.7 GWh from its commissioning in August 2020. Korlat Windfarm, which was put into operation in June 2020, generated 52 GWh until end of the year. Sisak and Osijek CHPs generated 23 GWh

> The off-system procurement was 6,151 GWh (33% of electricity demand), which was by 2,106 GWh (25.5%) less compared to 2019 as a remand caused by the pandemic. From the overall procured

volume, electricity import for customer supply accounted for 3,919 GWh. In addition, 1,189 GWh was purchased by HEP Group from HROTE on the basis of production from the existing subsidized renewable energy sources and cogeneration (655 GWh less as a result of reducing the mandatory volume of purchased incentivized electricity from 70% to 40%), while 770 GWh was purchased from the off-system producers, taken-off from customers with own production and from traders in Croatia.

A total of 274 GWh was procured off-system for transmission network losses.





13.9 TWh of electricity was sold to domestic customers: 5.7 TWh to households and 8.3 TWh to businesses. HEP Group market share accounted for 90.4% in the overall electricity sale to end customers in Croatia in 2020. 666 GWh was sold to customers in the region, which was by 195 GWh (22.7%) less than in 2019. The economic slowdown in 2020 caused by the pandemic resulted in a reduced demand by business customers in Croatia and the region. The remaining volume of electricity sold

abroad (1.5 TWh) decreased by of HEP's decreased share in the and it included the export of electricity surpluses generated by HEP Group power plants, electricity trade and the sale of balancing energy to the system operator in the region.

Compared to 2019, income from the sale of electricity decreased by HRK 1,040.1 million (8.3%) to HRK 11.494.5 million. Decreased income from domestic sale by HRK 583.2 m (5.2%) was the result of decreased demand.

930 GWh compared to 2019, sale to business customers, and of a drop of the average selling price for customers with guaranteed supply. The sale of 612 GWh of electricity produced in power plants with the incentivized eligible producer status generated income of HRK 353.9 m i.e. by HRK 24.8 m more than in 2019. Income from electricity export amounted to HRK 854.6 million, a decrease by HRK 456.9 million (34.8%).

District heating

Heat energy production, distribution and supply are conducted on the territory of Zagreb, Osijek, Velika Gorica, Zaprešić, Samobor and Sisak.

District Heating generated operating loss of HRK 147.2 million in 2020. Compared to 2019, the loss was reduced by HRK 67.3 million due to lower energy fuel costs resulting from a reduction in the price of natural gas and wood biomass.

A total of 2.307 GWh of heat energy was produced in 2020, percent more than in 2019.

generated 120 GWh, while 2.187 GWh of heat was produced in cogeneration facilities of HEP Proizvodnja. Process steam accounts for 24.1 pertotal generated volumes.

The sale of heat energy in 2020 reached 1,878 GWh i.e. a 5.3% or 95 GWh increase compared to 2019, of which households and business customers accounted

which was by 84 GWh or 3.8 for 57% (1,070 GWh) and 43.0% (808 GWh), respectively.

HEP-District Heating plants The sale to households and business customers in 2020 increased overall by 3.7 and 7.5 percent, respectively compared to 2019. Colder weather resulted in increased sale volumes cent and heat for 75.9 percent in in the last quarter by 108 GWh, while the sale in the first part of the heating season equaled 2019. During the off-heating season (April-September), sale decreased by 14 GWh.

Gas

HEP Group carries out the activity of retail gas distribution and customer supply. As of 1 April 2014, it has also become the wholesale gas supplier. These business activities generated operating profit of HRK 360.7 million compared to HRK 35.5 million of loss incurred in 2019. The 2020 profit was the result of income from the collected written-off receivables for natural gas from a domestic customer.

In total, income from gas sale in 2020 amounted to HRK 911.2 million, from gas distribution and supply to HRK 435.6 million, and from wholesale gas supply to HRK 475.6 million. Total income from gas supply decreased by HRK 441.4 million as a result of lower wholesale gas volume and a 8.1% decrease of selling price to public service suppliers for household customer supply.

Retail gas distribution and supply is conducted in the Osijek-Baranja, Virovitica-Podravina and Požega-Slavonia counties. Market liberalization

has facilitated HEP Plin d.o.o. expansion to other distribution

Income from gas sale for retail distribution and supply increased in 2020 by 20.6 percent to 1,834 GWh. The sale of gas to household and business customers rose by 15.3% and 25.2% respectively. The sale to customers on HEP Plin own distribution area increased by 12.7% compared to a 57% increase to customers on other distribution areas in Croatia. Despite a drop in the selling price, and as a result of increased sales volume, income from gas distribution and supply rose by 14.4 percent.

Under the Agreement on the Purchase and Sale of Business Shares in PPD - distribucija plina d.o.o. and PPD - opskrba kućanstava d.o.o., in March 2020 HEP Plin acquired a 100% ownership of business shares of said companies. In July 2020, Plin VTC d.o.o., PPD - distribucija plina d.o.o. and PPD - opskrba kućanstava d.o.o. merged with HEP Plin.

Pursuant to the Gas Market Act and decisions adopted by HERA, HEP d.d. has been the wholesale gas supplier. This business activity includes the sale of gas to those public service suppliers that supply gas to household customers who have opted for HEP d.d. Pursuant to HERA's decision from 28 October 2020. HEP d.d. will continue to perform said activity until 31 March 2021.

The gas wholesale activity generated income of HRK 475.6 million accounting for 3.3 percent of HEP Group's total operating income. Said income was by HRK 496.2 million lower compared to 2019 as a result of reduced gas sales and a 8.1% decrease in the gas selling price to public service suppliers . The purchase value of sold gas was 594.5 million, a decrease by HRK 558.4 million compared to 2019 as a result of reduced sales by 46% and a lower gas transportation and storage cost.

Financial position

Consolidated balance	31 Decemb	er 2019	31 Decemb	er 2020	% 2020/
(abridged)	HRK m	share	HRK m	share	2019
Long-term asset	34,405.6	81%	36,575.5	82%	+6.3%
Short-term asset	8,152.4	19%	8,064.0	18%	-1.1%
Total asset	42,558.0	100%	44,639.5	100%	+4.9%
Capital and reserves	25,610.3	60%	26,413.0	59%	+3.1%
Long-term provisions	1,195.4	3%	1,331.7	3%	+11.4%
Long-term liabilities	11,080.6	26%	11,693.5	26%	+5.5%
Short-term liabilities	4,671.8	11%	5,201.3	12%	+11.3%
Total liabilities and equity	42,558.0	100%	44,639.5	100%	+4.9%

Assets

assets at the end of 2020 was HRK 44.6 bn, an increase by HRK 2.1 bn. Long-term assets accounted for 82% of the Group's asset value, which marked an increase of HRK 2.2 bn as a result of increased value of prop-

The value of HEP Group's total HRK 2.1 bn, of increased other serves by HRK160.4 m in light financial assets and trade receivables from energy efficiency projects.

The value of short-term assets of HRK 8.1 bn represents a decrease by HRK 88.4 million due to decreased trade receiverty, plants and equipment by ables by HRK 204.5 m and re-

of decreased wholesale gas reserves. Cash and cash equivalents increased by HRK 162.3 m. as well as other short-term receivables by HRK 112.4 million as the result of advanced payments made towards working

Capital and liabilities

of 2020 amounted to HRK 26.4 as deferred income for assets billion, a rise of HRK 802.8 m in funded by others, of which the comparison with 2019 as the result of higher retained profit. A dividend of HRK 664.4 million was paid from the 2019 profits to the State Budget.

Long-term provisions increased by HRK 136.3 million primarily due to increased provision amounts for severance payments and litigation costs.

Long-term liabilities amounted to HRK 11.7 billion accounting for 26% of the Group's total liabilities and capital. They increased by HRK 612.9 million transaction-related and 2015 EL-TO Zagreb CCPP. The loan

Capital and reserves at the end bond-related liabilities as well highest share of deferred income comes from assets financed from distribution network connection fees which decreases by annual depreciation of related asset as well as increases by the asset value after the new connections have been completed.

> Liabilities for long-term loans increased by HRK 307.7 million due to the disbursement of loans from the European Bank for Reconstruction and Development (EBRD) and the European Investment Bank (EIB) for

agreement was concluded for the amount of EUR 130 million, of which EUR 87 million from the EBRD and EUR 43 million from the EIB.

Short-term liabilities amounted to HRK 5.2 billion, an increase by HRK 529.5 million compared to early 2020. Other short-term liabilities also increased due to increased deferred income from the financial support for the building of the LNG terminal. Corporate tax liabilities increased by HRK 61.3 m as well as the current maturity of longterm loans by HRK 9.9 m and short-term portion of lease-related liabilities by HRK 1.8 m. as a result of increased swap financing the construction of Trade, staff and tax liabilities decreased.

Credit rating

HEP is rated by both Standard & Poor's and Moody's.

In November 2020, Moody's upgraded HEP's long-term credit rating from Ba2 to Ba1 with a stable outlook as well as HEP's stand-alone credit profile to ba1. In its report, Moody's stated that said upgrade reflected the expectation of HEP retaining its strong financial profile in line with its good financial performance during last several years, metrics in the future.

In late October 2020, Standard S&P analysts expect less vola-& Poor's upgraded the company's rating outlook from stable to positive while affirming its ical conditions. HEP protected stand-alone credit profile (bb+) as well as its long-term credit rating (BB+). In its report, S&P stated that HEP continued to trends in market risk manageachieve exceptional financial results during the times of COV-ID-19 pandemic, which are ex-

and of retaining strong credit pected to continue throughout 2020.

> tility in HEP's earnings from operations affected by hydrologits credit metrics even during aggravated hydrological conditions, which indicates positive

CREDIT AGENCY	Baseline credit assessment	Standalone credit quality
Standard & Poor's	BB+ (positive)	bb+
Moody's	Ba1 (stable)	Ba1

Investments

In 2020, the Group made investment in the amount of HRK 4,342.2 m. Main investments focused on the reconstruction and the modernization of generation facilities and electric power system plants, the construction of new generation facilities and the reconstruction of the existing ones, and the construction of new transmission and distribution network infrastructure.

The construction of the first HEP-owned wind farm was completed, and the solar power plant on the island of Vis was

put into operation. The construction of several solar power plants commenced, and the independent development of several RES projects focused on creating conditions for their erection continued. HEP also signed agreements with 11 municipalities and towns on developing solar power plant projects from the location/building permit issuance stage.

The LNG terminal construction project on the island of Krk was completed. The project goal is to ensure a new natural gas supply route thus diversifying the routes and sources of natural gas supply on the Croatian and EU market, which will have a major impact on the security of natural gas supply.

In addition, investments were made in district heating and gas distribution systems as well as in IT and telecommunication infrastructure upgrade. A development and expansion of the public EV charging station network also took place in the cities and on the motorways in Croatia.

Investments in HRK m	2018	2019	2020	%2020/ 2019
Investments in property, plants and equipment	2,376.1	3,386.6	4,342.2	+28.2%

Through continuous investments in the maintenance and modernization of the existing facilities and the construction of new generation capacities and network systems, HEP meets the following objectives: security of energy supply, competitiveness of HEP's power system, the development of HEP Group's

to sustainability and the continuity of the Croatian energy sector by taking into consideration the increasing presence of other participants on the open market, especially in electricity supply and electricity generation from renewable energy sources.

Through investments, HEP Group meets preconditions business system, contribution for Croatia's future reach of an

adequate level of energy independence in the electricity sector, by taking current electricity consumption and the projection of its growth into consideration as well as the necessary decommissioning of thermal power facilities unable to meet the prescribed conditions of environment protection due to their technological old age.

Published financial statements

The annual meeting of the Gen- the Supervisory Board on the April 2020 and published on the eral Shareholders Assembly of HEP d.d. was held on 30 June 2021. The Assembly reviewed consolidated and unconsolidated annual financial statements of HEP d.d. and HEP Group for 2020 including the Independent Auditor's Report, the Annual Report on the state of affairs and the Report on operations of HEP d.d. and HEP Group in

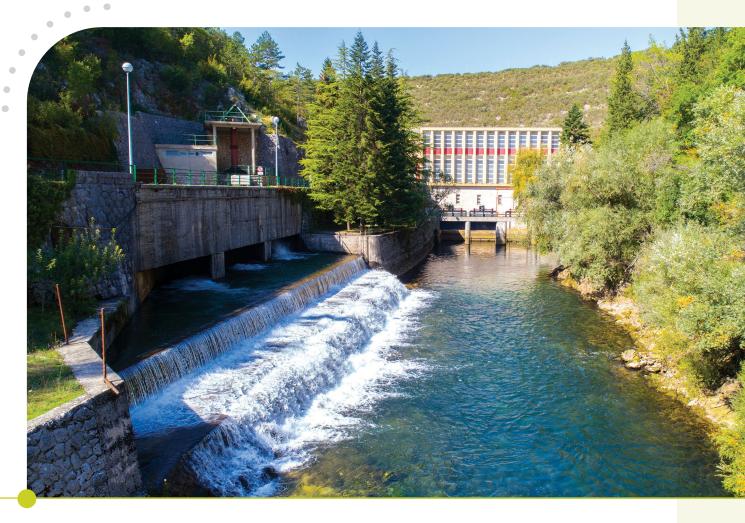
supervision conducted in 2019. The acts of the members of the Management and the Supervisory Boards, respectively, were granted discharge for 2020.

The Annual Consolidated Financial Statements and the 2020 Independent Auditor's Report solidated Financial Statements and the 2020 Independent Audi-2020 as well as the Report of tor's Report were signed on 29 StandAlone_2020.pdf

HEP Group website. They are available on:

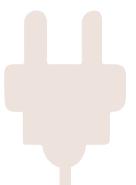
https://www.hep.hr/UserDocslmages//dokumenti/fin-izvj/ konsolidirana/2020//HEP_ Group_Consolidated_2020.pdf

as well as the Annual Non-Con- https://www.hep.hr/UserDocsImages//dokumenti/fin-izvj/ nekonsolidirana/2020//HEP_









Sustainable and responsible market approach

HEP Group strategic goals 2030 established the framework for longterm responsible and sustainable approach to market development.



HEP is committed to develop a sustainable and flexible energy portfolio, including the development of own versatile electric energy sources that ensure sustainability of generation and flexibility in the market approach. To realize this goal, HEP Group continuously invests in increasing generation from renewable energy sources in its portfolio and advances the existing portfolio by modernization and reconstructions of its generation facilities. Besides investing in renewable energy sources, investments in devel-

oping highly efficient cogeneration thermal and heat plants are also vital for the realization of this goal. The second important goal is the market adaptability. Regulatory and strategic framework in which HEP Group operates and the rapid development of energy trends and changes in customer habits demand a new approach to energy markets. Numerous projects initiated by HEP Group are critical to the accomplishment of this goal: from new products and services in all market segments, development

of smart networks to achieving contemporary customer experience standard requirements.

This vital area of development of HEP Group's generation, distribution and supply system comprises several material areas relating to stability and security of generation, distribution and supply of energy, sustainable construction and development of energy sector and continuous progress in realizing market defining and conceptualizing development, competitiveness, and advancing customer expeContribution to the UN sustainable development goals:













Material topics:

investment planning diversified generation mix reliable distribution systems ensuring national critical infrastructure

RES investments revitalization of generation facilities and network new market models products and services development

customer trust responsible supply chain prices of energy innovation and digitalization

ESG criteria:

innovation and development of products and services data privacy

Sustainable construction and development of energy system

HEP's strategic goal is to construct 1,500 MW new generation capacities by 2030, almost half of which is in wind and solar power (350 MW each).

Year 2020 marked a significant progress in realizing this goal with several significant projects, and despite the challenging working conditions in pandemic circumstances. Besides own project development, HEP organizes public tenders to purchase RES projects from interested partners and develops them in collaboration with local communities. In this way HEP confirms its strategic role of a leader in transition to low-carbon economy in Croatia. Renewable sources development will support Croatia in fulfilling its obligations to implement ambitious energy and climate goals set by the European Union within its Green Plan. In financing renewable scenario, HEP uses European funding and in the past three years uti-

2020, HEP had in various stages of development 42 projects of solar plants, totaling more construction permits accordthan 800 MW; the largest among them SPP Korlat (75 MW). It is a part of HRK 750 million cycle of solar plants construction in the jects is being prepared, as well as period between 2019 and 2023. Alongside investments in solar and wind power, HEP Group continues substantial investments in hydropower plants, the most significant being the development of the second phase of the Hydropower System Senj.

Construction commenced on the second phase of the Hydropower System Senj (HPS Kosinj / HPP Senj 2). In 2020, the location permit was obtained for the project HPP Senj 2 and an investment decision passed. An agreement on cooperation on the project of solving the water supply of the Croatian Littoral and the islands of Rab and Pag through the lized about HRK one million from HPP Senj 2 project was signed lation. Public procurement pro-

such sources. Until the end of between HEP and Water Management Company Senj. Project documentation for obtaining ing to the stages defined in all issued location permits for the HPS Kosinj and HPP Senj 2 proresolving property and legal relations in the area of the HPS Kosinj project. In cooperation with the local self-government, several infrastructure projects have been launched in order to compensate and improve the living conditions of the population in the area of the future accumulation of HPS Kosini. In May 2020, the construction of the Studenci - Sklope road began as one of the stages of the HPS Kosini project, with the intention to replace the old road in the area of immersion by the future accumulation, and in October 2020 the construction of an apartment building in Perušić began to accommodate financially deprived local popucedures for the construction of the road from the Kosinj bridge to Bakovac and the hydraulic tunnel and canal Bakovac - Lika are in progress. In July 2020, the application of the HPS Kosinj project was submitted for inclusion in the list of strategic projects of the Republic of Croatia, which is expected in 2021.

Solar power plant Vis, the largest so far in Croatia with the capacity of 3.5 MW, was put into operation in September 2020. The investment is worth HRK 31 million. With the construction of the solar power plant, the island of Vis got its own source of renewable energy and greater security of electricity supply, especially in periods of increased consumption during the tourist season. SE Vis is also the first large solar power plant built on the Croatian islands. The 3.5 MW power plant will produce about 5 million kWh

electricity per year, corresponding to the consumption of about 1,600 households, and will operate without incentives and on a fully market basis. The construction works were performed by a domestic company, Končar-Energy and Transport Engineering. The power plant has 11,200 photovoltaic modules with a power of 340 Wp and five frequency converters with a nominal power of 720 kW, which were developed and manufactured by Končar as one of the key elements of the power plant. The power plant management and control system was also developed and manufactured in Končar. A 1 MW battery with a capacity of 1.44 MWh, the first of its kind in Croatia, will be installed next to the Vis solar power plant. The battery tank will be used to provide power balancing services and to maintain network stability

on the island. By building solar power plants and accompanying battery tanks, strengthening the electricity network, including the replacement and construction of submarine cables, and installing charging stations for electric vehicles, HEP increases security of supply and helps achieve a high degree of energy self-sufficiency of Croatian islands to the highest environmental standards.

Construction works launched for other six solar power plants.

The Obrovac solar power plant is being built on the site of a former alumina factory. The connected power of the SPP will be 7.35 MW, making it the largest Croatian solar power plant under construction in 2020. The expected annual electricity generation of about 11.3 million kWh will be able to meet the needs of more than 3,500 households. The value of the investment is HRK 52 million. SPP Stankovci, with a connection capacity of 2.5 MW, is under construction in the area of the Production Zone Stankovci in Zadar County. The expected annual generation of 4.6 million kWh of electricity will be enough to supply 1,500 households. The value of the investment is HRK 26.3 million. In the area of the municipality of Žmini in Istria, SPP Marići is being built. The 1 MW power plant will generate about 1.2 million kWh of electricity per year. The value of the investment is HRK 9 million. Also in Istria, at the Sabadin lo-



By construction of the solar plant, the island of Vis got its own renewable energy source

is being built, the second phase of SPP Kaštelir (1 MW), which in 2019 became the first non-integrated solar power plant in HEP's portfolio. The 2 MW power plant will generate 2.9 million kWh. The value of the investment is HRK 15 million. On an area of approximately 40,000 m², 9,240 photovoltaic modules were installed by a domestic manufacturer, the company Solvis from Varaždin, which also delivered the modules for the other mentioned solar power plants. The Vrlika South solar power plant represents the realization of the first phase of the planned construction in the southern part of the Kosora Work Zone in the area of the town of Vrlika. The connected power of the power plant will be 2.1 MW, and the expected annual generation will be around 2.9 million kWh. The value of the investment is HRK 11 million. In June 2020, the construction of a solar power plant worth HRK 41 million began on Cres. The 6.5 MW solar power plant will produce about 8.5 million kWh of electricity per year, which corresponds to the consumption of about 2,500 households. The SPP Cres project was developed by the Primorje-Gorski Kotar County until the location permit was obtained, when the project

cation in the municipality of

Kaštelir-Labinci, SPP Kaštelir 2

In cooperation with 11 cities and municipalities, HEP will build

was taken over by HEP.

In 2020, the first HEP wind farm, WPP Korlat, with a capacity of 58 MW, started trial operation



120 MW of solar power plants. In

July 2020, a new public invitation was published to collect expressions of interest for the development and sale of renewable energy projects in Croatia. This public invitation was open until the end of 2020 and was sent to local governments to jointly prepare development documentation for the sale of projects of stand-alone solar power plants in development with a capacity of 2 MW or more, wind farms in development or operation and hydropower in development or operation with a capacity of 1 MW or bigger. Based on the evaluation of projects submitted in the previous public call, from September 2019 to April 2020, HEP concluded agreements with 11 local self-government units for the development of solar power plant projects, with a total capacity of 120 MW. Based on the call, HEP provided an additional

60 MW with the contracted acquisitions of developing projects.

Development of wind farms. In 2020, HEP's first wind farm, WPP Korlat, with a capacity of 58 MW, began trial operation. Korlat will be the first wind farm in Croatia to generate electricity without incentives. The project is worth HRK 500 million, and the expected annual generation is 170 GWh, which is about 1 percent of annual electricity consumption in Croatia and is enough to supply more than 50 thousand households. The new wind farm is constructed in the Korlat locality, eight kilometers northwest of Benkovac. The power plant consists of 18 wind turbines, each with an installed capacity of 3.6 MW. During the year, the development of five more wind farm projects with a total capacity of about 400 MW was initiated and continued.

Development of e-mobility

In addition to investing in renewable energy sources, the HEP Group is rapidly developing its network of electric car charging stations. In February 2020, in cooperation with INA, HEP was the first in Croatia to put into operation the fastest and most technologically advanced ultra-fast charging station for electric cars on motorways in Croatia at the Vukova Gorica rest area. HEP's first ultra-fast charging station, with a power of 175 kW, enables the charging of an electric car battery to 85 percent in just 15 minutes, while an ultra-fast charging station with a power of as much as 350 kW was put into operation at the Zir rest area in June.

In September, seven new charging stations for electric vehicles have been developed. The con-

were launched in Osijek. Also in September 2020, HEP put into operation the 200th filling station in Split (including internal filling stations in its own facilities) and by the end of 2020 it had more than 200 public ELEN filling stations in operation in Croatian cities, on intercity roads and motorways, with the possibility of simultaneous charging about 400 cars.

HEP finances the construction of filling stations with its own funds and by using EU funds sources. The use of HEP's ELEN filling stations is still free of charge, and the commercialization of services will follow after all the possibilities of customer service have been tested and billing models

tribution to the electrification of transport is part of Croatia's energy transition to a low-carbon society and one of the key parts of the European Green Plan.

To be particularly noted is the NEXT-E Project, which brings together 252 fast and ultra-fast filling stations on a single platform in six countries. HEP has teamed up with other members of the NEXT-E infrastructure project for electric vehicle charging stations and Hubject company to make fast and ultrafast charging stations available on a unique electric vehicle charging application in Croatia, the Czech Republic, Hungary, Slovakia, Slovenia, and Romania. The Hubject charging platform will thus integrate 222 multi-standard fast charging stations (50 kW) and 30 ultra-fast charging stations (150 - 350 kW) of the NEXT-E project, which further facilitates long-distance travel in the region.

The NEXT-E project, co-financed by the EU Connecting Europe Facility (CEF), represents the cooperation of four energy companies (along with HEP, the E.ON Group from the Czech Republic, Romania and Slovakia, MOL Group companies from Hungary, Croatia, Czech Republic, Romania and Slovenia and the Petrol Group from Slovenia and Croatia), as well as two car manufacturers (BMW and Nissan).



vehicle chargers until the end of 2020

Energy efficiency development projects for consumers

ty and Gradac Municipality. In 2020, HEP ESCO signed three contracts for the implementation of the energy efficiency projects in public lighting, two of which were completed in 2020, while the project in the City of Osijek will be completed in 2021. In the implementation of the project, lighting fixtures are being replaced by modern lamps with LED light sources. After the reconstruction, the consumption of electricity for public lighting will be reduced by 7.5 million kWh per year on the example of the city of Osijek compared to the previous one. The total investment in the City of Osijek is HRK 30.8 million, in the Municipality of Ližnjan HRK 1.95 million and in the Municipality of Gradac HRK 2 million. The return-on-investment period is seven years in the municipalities of Ližnjan and Gradac and eight years in the City of Osijek. In addition to energy and financial savings, the modernization of public lighting will contribute to environmental protection by reducing CO₂ emissions and light pollution in accordance with the EU directive. With these projects, HEP also contributes to Croatia's en-

ergy transition, which is based

on renewable energy sources

Modernization of public lighting

in Osijek, Ližnjan Municipali-

and energy efficiency in its own reducing energy costs in the production and consumption, long run. but also with its customers.

HEP ESCO carried out the construction of 69 integrated solar power plants (47 in 2020 and 22 in 2019), with a total installed capacity of 15 MWp, of which in partnership with electricity 26 power plants were installed through ESCO projects on the HEP Group customers on such market with their customers (17 projects by the end of 2020), and 43 on HEP ODS business heat production predominantly buildings (21 in 2020 and 22 in 2019). The idea is that integrated solar power plants produce the optimal amount of energy for the needs of the facility, thus

HEP, in addition to a secure and affordable supply, aims to help industries modernize and take advantage of the opportunities offered by the energy transition customers. Cooperation with projects is in line with the strategic goals of electricity and based on renewable sources.

In industry alone, electricity savings from solar power plants built over the last two years amount to 13.332 MWh / year.



opportunities offered by the energy transition

Stability and security of generation, distribution and supply of energy and energy sources

One of the most important business and development goals of the HEP Group is to ensure a high level of stability and security of generation, distribution, and supply of energy to citizens and business subjects in Croatia.

In a year that has brought us many challenges, from pandemic to earthquakes and their high-efficiency cogeneration aftermath, we have witnessed how important energy stability and security are. HEP Group In addition, market trends and has successfully responded to all these challenges, aware of tomers and users require even the importance of our role and impact on various aspects of opment of the distribution netbusiness operations and the work, the introduction of adquality of life of our customers. vanced networks.

In accordance with the strategic goals of HEP 2030, we can responsibly manage the impact on our stakeholders in the sustainable development of various electricity sources, raising the share of renewable energy production in the HEP Group's production portfolio, building plants, and increasing the efficiency of production plants. changes in the habits of cusfaster and more flexible devel-

Investments in renewable energy sources, primarily the development of projects in wind and solar power technologies and the reconstruction of existing and construction of new hydropower plants, are the focus of a long-term goal based on the concept of sustainable development. Replacing plants. equipment, and devices at the end of their life and increasing the efficiency of existing plants and equipment optimizes the generation process and reduces the risks of long-term downtime and the occurrence of major and serious malfunctions, thus preventing generation losses.

The investment cycle of reconstruction, extension and revitalization



Reconstruction and modernization of power plants

Continuation of hydropower re- to extend the life of hydropower stands out with the investment construction. These interventions replace worn out equipment with the new one at the of plants. The investment cycle talization of HPP Senj with the level of the latest technological and technical solutions, and the and revitalization of HEP's hy- and HPP Varaždin, worth HRK improvement of the technological process and modernization of equipment is achieved, often with the introduction of process automation and remote control. The primary goals of the reconstruction are to increase the the reconstruction of three hy- addition to modernizing 12 hyavailability of power plants for the needs of the power system, ed, among which HPP Zakučac with the latest technological

plants and to reduce the costs of HRK 932 million. Among the of maintenance and operation ongoing investments, the reviof the reconstruction, upgrade, investment of HRK 557 million dropower plants, which began 634 million, stand out. Reconin 2012, covered 12 of HEP's struction of four more hydro-26 hydropower plants, and is power plants is in preparation, worth a total of HRK 3.9 bil- and the largest investment, in lion. By the end of 2020, HRK the amount of HRK 510 million, 1.6 billion was invested and is planned in HPP Orlovac. In dropower plants was complet- dropower plants in accordance

solutions and environmental requirements and extending their lifespan, an important result of this investment cycle will be an increase in total hydropower by 170 MW and an increase in annual electricity production by 330 million kWh and contribution to the goal of the Republic of Croatia to meet the share of renewable sources in final gross consumption. In 2020, works on the renovation and replacement of equipment in RHPP Velebit

Treatment of the state of the s

and March, both HPP Dubrovnik units, which were damaged in the fire at the beginning of 2019, were put into operation. At the beginning of the year, the commissioning activities of the Generation Centre were completed and the reconstruction of HPP Gojak was completed.

Considering that the reconstruction and modernization of production facilities also achieve the goals of increasing production from renewable sources without taking up new space, these projects are described in the chapter Sustainable management of environmental impacts entitled Projects and activities to reduce HEP's impact on the climate and adapt

were performed. In February

business to climate change. The new highly efficient combined-cycle cogeneration unit **EL-TO Zagreb CCPP** on natural gas, electric power 150 MWe and thermal power 114 MWt, will replace two production units at the existing location in order to ensure long-term heat supply of more than 80 thousand citizens of western and northern Zagreb and steam supply to industrial consumers. EL-TO Zagreb CCPP will be a reliable source of electricity for the electrical energy system. With more power, it will enable more flexible operation of existing units and their longer durability in operation, i.e., higher generation on site with less impact on the environment

climate change. During 2020, the main works continued, which included construction works on the foundation and construction, installation of boiler plants and procurement and delivery of components of the main generation units (gas turbines, steam turbine and generators) and all other equipment. In 2020, the construction of a new switchyard facility 110 kV for the connection of the unit to the transmission power network began. Completion of the plant construction and trial operation is expected during 2022.

Combined-cycle cogeneration plant Osijek. It is planned to build a combined cogeneration plant for a gas and steam turbine with a utility boiler. The total power of the new generation plant is 85 MWe and 75 MWt at the threshold. The plant will be connected to the central heating system of the city of Osijek. It is planned to use a "long life" gas turbine, power 50 - 60 MW, designed for long-term operation with high availability and reliability and with first-class references according to the criteria of technical, technological, and operational importance, maintenance and costs. In 2020, the documentation for the location permit was being prepared, the acquisition of which is planned for 2021, after which the conditions for making an investment decision on construction will be created.

During 2020, the main works on the construction continued on the new

The construction of such highly efficient cogeneration plants is in the function of building and maintaining a diversified and flexible generation energy portfolio, which implies the possession of various sources of electricity. In addition to supplying thermal systems in Zagreb, Osijek and Sisak, HEP's highly efficient cogeneration plants have also proven to be very important

for the electrical energy system. In dry years, in periods of large hydrological oscillations and in conditions of a significant share of intermittent renewable sources, and in case of serious disturbances in the power system, they reduce interruptions in the supply of electricity and heat to a minimum. The plants are built in accordance with the best available techniques and

are obliged to obtain a decision on the environmental permit from the Ministry of Economy and Sustainable Development before starting operations. More on the aspects of environmental impact reduction and climate change can be found in the chapter Sustainable management of environmental impacts.

Generation capacities of HEP Group - availability

plication containing indicators on power plant generation, in 2020 the average operational availability of hydropower plants was 82.5 percent, and the operational availability of thermal power plants was 59.4 per-

According to data from the ap- cent. With appropriate preventive maintenance of production facilities for the production of electricity and heat, HEP Proizvodnia in 2020 maintained a high level of availability of most production units. The planned formed within an acceptable annual maintenance works of

the production units were successfully performed, while the corrective maintenance works for malfunctions and elimination of operational disturbances and deficiencies were perperiod of time.

Distribution system management

HEP ODS performs the regulated activity of electricity distribution, and its main task is to ensure a reliable supply of customers with growing demands for the integration of the distribution of renewable electricity sources, electric vehicles, and electricity tanks. HEP's strategic goals for the development of the distribution system are to achieve interactivity with network users and market entities, the development of a system adaptable to change, optimized for the logical solutions for advanced

efficient use of resources and distribution network developequipment and capable of preventing and responding to crisis events. To achieve these goals, HEP ODS should ensure, among other things, systematic renewal of the distribution network, construction of standardized, simple and economically justified facilities, plants and devices, harmonization and optimization of technical solutions and automation of plants and networks, application of modern techno-

ment, accelerated development of advanced metering systems, reduction of electricity losses and increase of energy efficiency of the distribution network.

Business operations in 2020 were marked by new regulatory, organizational, and technological challenges, and additional ones were caused by the economic effects of the pandemic and earthquakes in the Zagreb, Sisak-Moslavina, Zagreb and Karlovac counties. HEP ODS continued with the operational implementation of business digitalization. Special challenges were to adapt the business to the new conditions due to the pandemic and earthquake, with simultaneous investments in new technologies, increasing business efficiency and maximizing the use of EU funds.

Considering that electricity distribution covers a wide range of business activities, i.e., business areas, including a large number of entities, HEP ODS pays special attention to the identification and management of key risks, by business areas. The majority of risks are managed through established management systems according to ISO standards. Risks related to electricity losses, reliability of supply, realization of investments, support to the electricity market, management of metering data and development of metering system, connection to the network and inventory management were identified. A significant risk in the operations of HEP ODS is the impact of natural disasters particularly on overhead lines, particularly on overhead lines (e.g., earthquakes or climate changes related such as floods, ice rain, hurricane winds, or salt). In order to reduce this risk, appropriate technical solutions are used when planning the development of the network.

Every year, in accordance with multi-annual plans, HEP ODS

invests in the development and renovation of the distribution network. In 2020, the largest share of network development was realized by investments in electricity conditions and connections, replacements and reconstructions and new facilities, in the total amount of HRK 1.15 billion.

Investments in Konjsko and

Sucidar substations for security of supply of Split and southern Croatia. At the location of Konisko substation, works on the construction of a static compensation plant have begun. The facility is being built as part of the European project of smart grids SINCRO.GRID. According to the European Commission, this is an innovative EU project in the field of smart grids, and in addition to Slovenian, Croatian transmission and distribution system operators, HOPS and HEP ODS are also participating in it. It is co-financed from the European Fund for Strategic Infrastructure Projects in the amount of EUR 40.5 million, while its total value is almost EUR 90 million, and investments in Croatia amount to HRK 200 million. The goal is to improve the quality of voltage and increase the transmission power of existing lines. Konjsko substation, the largest transmission network facility in Dalmatia, will receive a state-of-the-art static compensation plant, the first of its kind in the surrounding coun-



In April, a new submarine

tries. Works are also underway on the construction site of the new Sucidar substation as part of the Energy Supply Program of the City of Split. This is a project jointly implemented by HOPS and HEP ODS and which will facilitate abandonment of the 50-year-old outdoor 110/35 kV facility. The completion of works is expected in the second guarter of 2022.

20 kV submarine cable Silba - Premuda laid. In April. a new submarine transmission line between the islands of Silba and Premuda was put into operation, bringing Premuda back into the Croatian electricity system. Thus, HEP ODS additionally ensured the supply of electricity to the island, and the total investments amounted

to HRK 6.6 million. The island was left without electricity due to breakdowns on an earlier cable in late 2019 and in February 2020. Elektra Zadar ensured the emergency supply of electricity using generators and initiated activities to create conditions for a permanent solution for

safe power supply. The problem ties, whereas a significant part of frequent mechanical damage be solved. This project is a part of a broader investment of HEP ODS in the reconstruction and 135.4 million. construction of the electricity distribution network and facili-

of the funds relates to continto the submarine cable caused uous investment in the coast by fishing and anchoring had to and on the islands. Investments in islands in 2020, realized in all coastal counties, total HRK

Security and stability of distribution after earthquakes

In 2020, a special challenge for the Sisak-Moslavina County and the sustainability of the distribution network was caused by two devastating earthquakes on March 22 in the Zagreb area and on December 29 in the area of central Croatia, especially in the Sisak-Moslavina County. At the time of the earthquake, 107.645 network users or 25.9 percent of the total number of users of the Zagreb distribution area remained without electricity supply in Zagreb. HEP ODS immediately took measures to eliminate power supply failures, in accordance with the prescribed procedure in a crisis situation. In the first half hour after the disturbance occurred, using a remote-control system, power was established for about 75 thousand network users, and by the end of the day, power was provided for 99 percent of affected users. HEP ODS suffered significant damage to the power facilities of HEP ODS in the City of Zagreb, on the medium voltage and low voltage network. On December 29, about 136,000 users suffered electricity interruption in

Zagreb due to the earthquake, of which 91,000 in the Zagreb area and 45,000 in the Sisak distribution area. In Zagreb, power was day. In the first phase of the Sisak distribution area, about 83 percent of the distribution network was without power. Given the large number of damaged disturbance.

facilities in the distribution network, power was restored to 85 percent of users during the same day, while most of the remaining users were restored to power the restored to all users on the same next day. In the areas where the medium and low voltage distribution networks suffered the most damage, network users received power 48 hours after the



of the distribution network

Development of smart grids

and digitally advanced solutions the HEP Group, and the implementation of the concept of smart grids networks is a significant strategic goal. Projects for the development of smart grids and the modernization of the distribution system contribute to increasing energy efficiency and reliability of electricity supply. The goal is to equip billing metering points of all categories of customers with remote reading meters within 15 years.

During 2020, the implementation of a complex multi-year project to modernize the distribution network continued by equipping users with smart meters and a remote reading system. In 2020, approximately 150,000 new smart meters were installed, while about 90,000 were certified. Of the 44,000 metering points of the 20 kW connection power (industry and and create the preconditions for

The introduction of innovative small business), 99 percent are equipped with smart meters. is one of the material topics of The remote reading system covers 350,000 smart meters or 14 percent of the total number in the distribution network.

> The replacement of communicators that were on GSM technology with LTE (Long Term Evolution) technology communicators has been completed, which improves the success of remote reading and speeds up the exchange of data with market participants.

Pilot project of smart grids. With the purchase of energy efficient transformers in July 2020, HEP ODS activated the pilot project for the introduction of smart grids, which will be implemented by the end of 2022. The project refers to the digitalization of part of the electricity distribution network in Croatia, power supply, increase the number of users with access to a smart grid

further integration of distributed sources. With this project, HEP ODS invests in three functional areas of the advanced electricity distribution network: advanced infrastructure, development and optimization of the conventional network and automation of the medium voltage network. The total value of the project is HRK 176.83 million, of which 85 percent are grants from the European Regional Development Fund, awarded under the Operational Program "Competitiveness and Cohesion 2014-2020". In addition, HEP ODS will independently invest an additional HRK 52 million and the total value of the investment in smart grids will amount to almost HRK 230 million.

Distribution network and customers in regulated segment

Length and category of distribution network lines are presented in the following table:

VOLTAGE LEVEL	Overhead lines (km)	Cables (km)	Submarine cables (km)	Total (km)
Lines 35(30) kV	2,994.5	1,375.3	153.8	4,523.6
Lines 20 kV	4,616.4	5,976.1		10,592.5
Lines 10 kV	15,710.7	11,353.4	251.8	27,315.9
Network 0,4 kV	43,869.2	18,299.1		62,168.3
Home connections (0,4 kV)	23,034.6	13,333.7		36,368.3
Total	90,225.4	50,337.6	405.6	140,968.6

During 2020, the unified contact center of HEP ODS, which operates in Knin and Vukovar, took over calls for reporting faults for the management function for 11 distribution areas and recording voice messages for planned power outages for 12 distribu-

tion areas. In accordance with the objectives of the Action Plan of the Government of the Republic of Croatia for the administrative relief of the economy, the functionalities of the My electronic form. Network web application have been improved. New user ap-

plication forms were published on the HEP ODS website, which reduced the number of forms, increased visibility, and accessibility, and enabled filling in in

Number of billing metering points in the distribution network:

<u> </u>	
DESCRIPTION	Total
HV-110 kV	4
MV- 35 kV	97
MV- 10(20) kV	2,352
Total MV	2,449
Total high and medium voltage	2,453
LV-commercial (blue)	41,087
LV-commercial (white)	128,192
LV-commercial (red)	31,611
LV-commercial (yellow)	22,029
LV-residential (blue)	713,243
LV-residential (white)	1,545,227
LV-residential (red)	2,214
LV-residential (black)	2,948
Total low voltage	2,486,551



Electricity losses in the distribution network

of business efficiency and quality of electricity distribution activities in HEP ODS. Reducing electricity losses is one of the most important business goals and to achieve it, investment and operational measures have been implemented for many years. The implementation of these measures has resulted in a downward trend in the amount of electricity losses over the years.

Electricity losses are indicators According to their type, losses are divided into two key groups. consequence of the operating condition of the distribution network and the technical characteristics of the network elements, relate to the magnetization losses of the cores of a large number of transformers and to the heat losses on lines and transformers. Non-technical losses, which are a con-

sequence of unmeasured and unaccounted energy consumed Technical losses, which are a by electricity customers, and relate mostly to measurement errors, unauthorized electricity consumption etc.

> According to the existing methodology, electricity losses are the difference between the energy that entered the distribution network (from the transmission network and power plants connected to the distribution net

end customers. Losses are expressed as a percentage of the total electricity supply. Losses in the distribution network for 2020 amounted to 1.355 GWh. or 8.56 percent, of which tech-

work) and the energy charged to nical losses amounted to about 51 percent, and non-technical 49 percent. In the previous reporting period (2019), losses of 1,276 GWh or 7.64 percent were recorded. The increase was due to a pandemic that caused sig-

nificant changes in the structure of consumption by voltage levels, which has the impact of increasing losses in the distribution network.

Distribution network reliability

Ensuring the stability and security of energy supply is a significant strategic goal of the HEP Group, and stakeholders assess this material topic as an issue of the utmost importance for their sustainability and for the sustainability of the national economy. In 2020, HEP ODS carried out activities to improve the reliability of electricity supply. HEP ODS keeps electronic records of planned and unplanned power network and 578.57 minutes for

outages (power outages) and their frequency (SAIFI - average annual number of power outages per customer) In 2020 it was 1.64 for cable network and 5.04 for overhead network. The average duration of long-term power outages (SAIDI) is a general indicator of the total duration of long-term power outages per network user, and in 2020 it was 146.1 minutes for cable

overhead network. The average duration of long-term power outages (CAIDI) shows data on the average time required to restore power, which in 2020 was 88.84 minutes for the cable network and 114.69 minutes for the overhead network. Increased long-term disruptions in 2020 were caused by the aftermath of the earthquake.

Development of distribution and delivery of thermal energy

HEP Toplinarstvo aims to main- zation of the hot water network steam pipelines and the utilitain its position as a leader in the distribution and delivery of capacity of the connecting hot thermal energy to end customers with as little energy loss as possible, and to be recognized as a modern, environmentally conscious, and socially responsible company. With a share of and increase the number of new 80 percent in the district heating sector, HEP Toplinarstvo is the largest distributor of thermal energy in Croatia. The main development goals include reduction in distribution lossthe continuation of projects fi-

in Zagreb and increasing the water pipeline in Osijek. The revitalization of the hot water and steam water network in Zagreb continues. It is also planned to consolidate the heating system connections to the hot water system. By increasing the consumption of end customers on the steam pipeline network, a es is expected. Increasing the nanced from EU funds: revitali- level of utilization of existing

zation of cogeneration plants can be achieved by greater use of steam for cooling and ensure summer consumption. The goal is to introduce a system for remote measurement of thermal energy consumption.

HRK 700 million for the revitalization of the heating network in Zagreb. HEP Toplinarstvo is launching a project to revitalize 68.5 kilometers of hot water network in the Zagreb area. The total value of the project is HRK 700 million, of which HRK 421.5 million is financed by grants from the European Regional Development Fund. This is the largest amount ever allocated to HEP from European Union funds. The grant agreement was signed in November 2020. The project is implemented in the mechanism of integrated territorial investments in the urban agglomeration of Zagreb with the aim of increasing the efficiency of the district heating system. Works on the revitalization of the hot water network, which supplies more than 100,000 customers, wil be carried out over three years in several phases, and will include the replacement of almost a third of the existing network. The hot water network will be renewed with modern technol-

Replacement of the connecting hot water pipeline in Osijek includes the replacement of

ogy of channelless laying of

pre-insulated pipes, which will

increase the reliability and safe-

ty of the central heating system

in Zagreb.

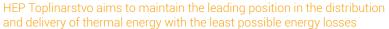
the connecting hot water pipeline from the Thermal Power Plant - Osijek heating plant to the heating plant, with a total length of 4.4 km. The estimated value of the project is approximately HRK 79 million, of which approximately HRK 46 million is provided from grants. The project envisages a reduction

7.66 to 6.58 percent, which will achieve savings in primary fuel consumption of 6,151 MWh. Creating more favorable hydraulic conditions in the hot water network will enable future connection of new end customers and will reduce electricity consumption for pump opera-

Other revitalization and network construction projects. During 2020, a part of the hot water network in Samobor was revitalized, for which HRK 1.1 million of own funds were invested. As part of the construction of the central heating system of in heat losses from the current the city of Velika Gorica in 2020,

tion by 2,534 MWh.

the construction of a heating pipeline was carried out, in which HRK 5.1 million was invested. In Osijek, a little more than a kilometer of hot water network was revitalized, while as part of the revitalization of the steam network, we built a return condensate pipeline from BE-TO Osijek CHP to TE-TO Osijek CHP, as well as the crossing of the steam pipeline over Divaltova Street. HRK 6.8 million was invested in the revitalization of the hot water and steam water network in Osijek.





A step forward in the gas market

The year 2020 was marked by rovitica's Plin Vtc, acquired a HEP Plin's long-term plans are the consolidation of the market year earlier, were closed down of local natural gas distributors. in 2020 as business entities HEP sees this as an opportunity to ensure a more favorable expansion of the distribution market position, optimize the costs of maintaining the distribution network and security of gas supply. In March 2020, HEP Plin took over the ownership of 52.5 kilometers of gas network the companies PPD-Distribucija plina and PPD-Opskrba kućanstava from Energia naturalis, in a total value of HRK 76.5 million. With these acquisitions, ownership of over 702 kilometers of gas distribution network in Vukovar-Srijem County was acguired and the supply of 10,800 new customers was taken over. and for the needs of the Belje Both companies, as well as Vi- farm were significant.

and merged with HEP Plin. The network continued in the summer, when HEP Plin signed an agreement with the municipality of Bizovac on the purchase of and thus ensured its long-term functionality. The value of the contract is HRK 2.1 million and with it HEP Plin almost fully completed the distribution and supply area in Osijek-Baranja County. In the area of investments, the construction of gas pipelines in Belišće and Osijek

aimed at building an additional gas network and introducing new technologies, such as remote reading and "smart" gas meters, which provide the basis for further increasing the number of customers, the amount of gas distributed and increasing the quality of service. The goal is to further strengthen the market presence and share by further consolidation, so in 2020 preparations for new acquisition projects began next year.

Market development and competitiveness

Customer oriented business

Trends in user experience in energy markets indicate changes in customer habits that are becoming increasingly demanding, especially in the demand for multi-utility products and the use of digital channels. HEP Group's strategic goals include improving the quality of service

and communication with customers as key stakeholders. The direction of the development of the customer experience implies that companies, whether performing market or regulated public service activities, strengthen their focus on customers and users. HEP Group

will achieve this by constantly educating employees engaged in business with customers and customers and engaging them in dialogue in order to proactively explore customer preferences and ensure the development of new services.

. . . .

HEP Opskrba

HEP Opskrba continuously communicates with its customers in order to provide them with important information for their business in a timely manner, using various communication channels: the company's website, ZelEn and Hepi product websites, newsletters, Hepi Facebook page and LinkedIn like. The My Hepi account approfile. Customers in the region are informed on the HEP Energija

BiH. As part of the HEP Opskrba ensure faster and better resoluwebsite, customers of the com-My Account application to monan insight into their account at any time, as well as monitor the balance of overdue liabilities, unpaid bills, interest and the application are available to reswebsite for Slovenia, Serbia and idential customers. In order to independent survey of the quali-

tion of customer requests, after mercial category can use the the introduction of chatbots on the Facebook page of Hepi, in itor their account balance, have 2020 live chat was implemented as a new communication channel on the website of Hepi.

An extremely important communication channel of HEP Opskrba is the Customer Serplication and the m-hepi mobile vice, as evidenced by numerous awards. In September 2020, an Customer Service was conducted by a company specializing in mystery shopping. The study involved 100 respondents, with 88.92 percent of respondents having confirmed quality of service. At the end of 2020, for the fourth time, the ISO 9001: 2015 certificate for Customer Service was renewed as a confirmation of the high quality of services, especially when it comes to customer relations. In 2020, the Company's customer service also won the Annual Award of the CX.hr portal in the category "Best Contact Center for up to 30 employees" for 2019.

In improving customer relations, HEP Opskrba pays special attention to maintaining close customer relations by organizing the HEP Opskrba Customer Meeting in Croatia and the HEP Energija Customer Meeting in Slovenia. Given the circumstances caused by the outbreak of the pandemic, the 9th Customer Meeting was held online.

During 2020, an online HEPI Trader workshop was organized for key customers, in order

ty of service of the HEP Opskrba to inform about the situation on the electricity market and price trends.

> Furthermore, customers are also informed about household bills, so on each Happy account, customers receive energy advice for additional savings in their household and other relevant information.

As HEP Opskrba priority is customer satisfaction, in October 2020 a customer satisfaction survey was conducted in the categories of commercial and residential customers, the results of which showed that as many as 87 percent of respondents are satisfied with HEP Opskrba services.

In 2020, due to non-payment, at the request of HEP Opskrba, a total of 184 disconnections were carried out, of which 80 disconnections of customers in the residential category and 104 disconnections of customers in the commercial category. The contracts were terminated with 20 customers in the residential category and 58 in the commercial category. The share of timely submitted requests of suppliers for re-establishment of electricity supply to the end customer, after the cessation of reasons for temporary suspension of electricity supply in 2020 is 100 percent, of the total number of requests which were 127, all were resolved within one day.

During the reporting period, there were no legal proceedings in progress or completed related to conduct contrary to the principle of freedom of competition and violation of regulations governing prohibited agreements of undertakings (trusts) and monopolies, in which the organization was identified as a participant, as well as cases of non-compliance with requlations and voluntary codes regarding marketing communications, including advertising, publicity and sponsorship. Also, no cases of complaints related to violations of customer privacy or loss of personal customer data were recorded. There were no cases of non-compliance with laws and regulations in the area of society and the market, as well as cases of corruption.

Number of customers points of HEP Opskrba by category on 31/12/2020

CUSTOMER CATEGORY	2019	2020	% 2020/2019
Customers - commercial	35,146	34,142	-2.9
Customers - residential	59,835	66,152	10.6
Total number of customers	94,981	100,294	5.6

Number of billing metering points of HEP Opskrba customers by voltage levels on 31/12/2020

CUSTOMER CATEGORY	2019	2020	% 2020/2019
High voltage	144	145	0.7
Low voltage	1,822	1,771	-2.8
Low voltage – commercial	96,551	94,043	-2.6
Low voltage – public lighting	17,952	17,483	-2.6
Low voltage – residential	59,835	66,152	10.6
Total low voltage	174,338	177,678	1.9
Total	176,304	179,594	1.9

HEP Elektra

Number of billing metering points of HEP Elektra customers by voltage levels

CUSTOMER CATEGORY	2019	2020	% 2020/2019
High voltage	1	1	0,0
Medium voltage	272	257	-5.5
Low voltage - commercial	83,579	84,881	1.6
Low voltage – public lighting	1,643	1,374	-16.4
Low voltage - residential	2,026,349	2,047,012	1.0
Total low voltage	2,111,571	2,133,267	1.0
Total	2,111,844	2,133,525	1.0

Number of billing metering points by customer category

CUSTOMER CATEGORY	2019	2020	% 2020/2019
Residential	2,026,349	2,047,012	1.0
Commercial	85,495	86,513	1.2
Total	2,111,844	2,133,525	1.0

In 2020, HEP Elektra submitted a total of 13,909 customer requests for the re-establishment of electricity supply to the end customer after the cessation of the reason for the temporary suspension of electricity supply. Within one day, 13,712 or 98.6 percent of requests were tion, most of which were pro-

resolved. The total number of cessed in a much shorter period complaints received in 2020 is 1,868. Of the complaints received within 15 days, 1,836 or 98.3 percent were resolved.

In 2020, HEP Elektra received and processed 279,086 inquiries by electronic communica-

than the legally required. The number of free info phone inquiries in 2020 was 481,873. HEP Elektra, as the provider of the public supply service, does not have the possibility of free contracting, and all customers who, under certain conditions,

are left without a supplier, automatically become HEP Elektra's customers. Consequently, the largest number of customers with payment difficulties are HEP Elektra customers, which requires an individual approach to customers, understanding the unenviable situation in which many customers find themselves and finding the best solution. Customers contact HEP Elektra not only because of the issue of supply, but also with inquiries about the activity of the system operator. Namely, HEP Elektra, as the holder of the public supply service, is obliged, according to the provisions of the Electricity Market Act, to mediate between customers and system operators, which offers customers two points of

communication. The reasons why customers contact us are versatile, most frequently relate to delivery of readings, issues related to the My Account application, inquiries about the balance of debts, instalment payments, complaints and extraordinary settlement, customer change procedure, confirmation of payments and more. In 2020, HEP Elektra adjusted the method of communication with customers, considering the prescribed epidemiological measures. Due to the emergency situation caused by the pandemic, the initiation of forced collection measures was discontinued.

HEP Elektra's price list is publicly available on the official website and is universal for all customers.

Information related to the change of supplier is also clearly stated and HEP Elektra has no reports of conduct contrary to the principle of free competition, antitrust and monopolistic practices. In 2020, HEP Elektra's personal data protection officer received a total of 88 requests for the correction of customers' personal data. Four requests or objections were received for insight into the use and processing of personal data, and the information was provided to the applicants without delay. In the reporting period, there were no justified complaints in the operations of HEP Elektra regarding violations of customer privacy or loss of personal data about the customer.

HEP Toplinarstvo

The year 2020 brought special challenges for the communication of HEP Toplinarstvo with end customers, in organizational and operational terms. Faced with the COVID-19 pandemic, HEP Toplinarstvo has completely adapted its operations to the new working conditions. The Center for End Customers of Thermal Energy and the cash registers were temporarily closed, and all contacts and communication with end customers were directed to e-mail and the Consumer Line, which

cord number of inquiries received through these communication channels. An additional challenge was the temporary transition of employees to work from home, to which they quickly and efficiently adapted.

In September 2020, HEP Toplinarstvo introduced the service of issuing e-invoices for end customers in the residential category, i.e., end customers were offered the option to stop delivering printed heat bills and download invoices electronically in the My Heat Bill application. With the inresulted in responding to a re- troduction of this service, higher

standards in customer relations have been achieved and the protection of the environment has been contributed.

Communication of HEP Toplinarstvo with end customers of thermal energy is organized through various communication channels: regular mail, consumer lines, emergency lines available 24/7, fax, e-mail and on the website which includes the application My bill for thermal energy. In addition, HEP Toplinarstvo has organized a Center for the reception of end customers of thermal energy at

its headquarters in Zagreb. End customers are also informed about the efficient and proper use of thermal energy through regular publications on the website and a report on the operations of the thermal energy customer, which is submitted each year with the heat bills. End customers are advised to manage energy responsibly and energy-efficiently and to install devices for regulating heat output (thermostatic radiator valve

and thermostatic head), which can be used to control thermal energy consumption.

In 2020, end customers also recognized the quality of work and services of HEP Toplinarstvo, which was confirmed for the fourth year in a row by an anonymous survey conducted in Zagreb, Osijek and Sisak. In the survey, end customers highlighted the professionalism and expertise of employ-

ees, the speed of answering inquiries and the availability of information about services as the greatest advantages of HEP Toplinarstvo's business

In 2020, there were no cases of justified complaints regarding violations of customer privacy or loss of personal data of customers, as well as non-compliance with regulations and codes related to marketing communications.

Number of HEP Toplinarstvo end customers

CUSTOMER CATEGORY	2019	2020
Residential	121,954	123,183
Industry and business premises	6,426	6,452
Total	128,380	129,635



Number of end customers of HEP Toplinarstvo by cities – 31/12/2020

	Zagreb	Osijek	Sisak	Velika Gorica	Samobor	Zaprešić
Residential	99,289	10,527	4,068	5,660	1,357	2,282
Commercial	4,720	1,288	85	242	26	91
Total	104,009	11,815	4,153	5,902	1,383	2,373

HEP Plin

Number of customers 31/12/2020

CUSTOMER CATEGORY	2019	2020	2020/2019 (%)
Residential TM1-TM4	71,870	87,496	21.74
Commercial TM1-TM8 (up to 1 mil. m³)	5,460	5,696	4.32
Commercial TM9-TM12 (over od 1 mil.m³)	6	4	-33.33
Total	77,336	93,196	20.51

TM = tariff model

Number of customers according to supply areas

SUPPLY AREA	Number of customers
Osijek-Baranja County	65,227
Požega-Slavonia County	8,659
Virovitica-Podravina County	12,156
Vukovar- Srijem County	7,154
Other counties	4,363
Total	97,559

With the new acquisitions, HEP customers in 2020. In preparation for the new phase of deregulation of the Croatian gas market, during the year HEP Plin prepared for an advancement in

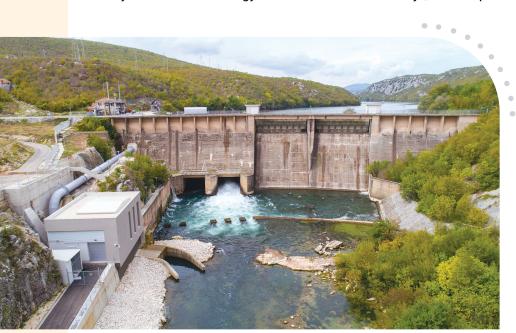
offering its Hepi plin product to Plin increased the number of households outside its distribution area, which will be undertaken in 2021.

> In 2020, there were no cases of justified complaints regarding

violations of customer privacy or loss of personal data of customers, as well as non-compliance with regulations and codes related to marketing communications.

Eligible electricity producers

Origin of Electricity maintained registered users were HEP d.d., by the Croatian Energy Market HEP Proizvodnja, HEP Opskr-



Small hydropower plant Prančevići – an eligible producer of electricity

In the Register of Guarantees of Operator (HROTE), in 2020 the ba and HOPS. The active user with the status of a producer in 2020 was HEP Proizvodnja with 16 hydropower plants, and HEP Opskrba as a supplier. Each guarantee of origin represents 1 MWh of electricity, produced 100 per cent from a renewable energy plant or from a high-efficiency cogeneration plant. Eligible producers in the incentive scheme and who are entitled to the incentive price are not entitled to participate in the guarantee of origin system. The user - supplier in the Register of Guarantees from the HEP Group is HEP Opskrba, which offers its business customers under the ZelEn brand electricity with guaranteed origin from renewable sources. That the electricity

used by ZelEn customers is obtained exclusively from renewable sources is proven by the abolition of a sufficient number of guarantees of origin of electricity in the register of guarantees.

In 2020, HEP had concluded agreements with HROTE on the purchase of electricity with a power plant Kaštelir (Sabadin) quaranteed purchase price for the following generation plants: er plants installed on their own high-efficiency cogeneration Block L in TE-TO Zagreb, biopower plants BE-TO Osijek and purchase of electricity. BE-TO Zagreb, small hydropower plants Prančevići, ABM Lešće and ABM Varaždin, solar

and nine integrated solar powfacilities. In 2020, HROTE paid HRK 332.6 million to HEP for the

Central Chemical Technology Laboratory

The Central Chemical Technol- purposes according to the Euro- tion value-added composites" ogy Laboratory (CKTL) is the pean certification schemes EN only recognized testing laboratory for the certification of pellets and wood chips in the region and Southeast Europe. CKTL worked smoothly during 2020 and conducted almost the same number of tests as in 2019. The largest share of samples consisted of solid biofuels (60%), ash (18%) and coal coke (13%). In 2020, the cooperation with the certification house TÜV NORD Adriatic d.o.o. continued for laboratory testing of wood chips and pellets for certification wood biomass into construc-

Plus and Good Chips which are part of the umbrella European organization Bioenergy Europe. Cooperation with the companv Beton Lučko RBG for Contractual Research - chemical and physical analysis of wood - "Transformation of ash from

aimed at transforming wood biomass ash (PDB) into value-added building composites. In December 2020, the Croatian Accreditation Agency (HAA) conducted regular supervision of laboratory accreditation according to the standard HRN EN chips and ash for the purpose ISO 17025: 2017, and during the of "Development of innovative supervision CKTL successfully building composites using bio proved the transition to a flexash" and cooperation with the ible accreditation area, which Faculty of Civil Engineering from allows the laboratory to inde-Zagreb within the project Tarec2 pendently manage changes in standards for methods covered by accreditation.

Responsible procurement management

HEP d.d. is a sectoral contracting authority obliged to apply the **Public Procurement Act. Procure** ment procedures are conducted in accordance with the current Public Procurement Act and bylaws, internal acts of companies and the acquis communautaire.

Procurement planning is one of the preconditions for quality and timely implementation of procurement procedures. In order to improve the procurement business, it is planned to update the planning process and acts in the field of procurement. The Decision on Procurement Categories plays an important role in procurement operations, as it determines the level of procurement of goods, works and services determined by the HEP Management Board with the aim of transparent and efficient procurement, savings and business risk mitigation. During 2020, the templates of procurement documents and contract documents

were updated in accordance with the new public procurement practice. In order to educate employees, online education was organized, i.e. the development of e-learning modules on purchasing business.

Given the amount of procurement procedures performed in the HEP Group, it can be concluded that the process is successful. Further progress is possible through constant monitoring of the achievement of key objectives in the procurement business, such as: finding the best procedures for the procurement of goods, works and services; timely insurance of goods, works and services with the best value for money; ensuring the accuracy and legality of the conduct of procedures in compliance with the principles of public procurement; unification of a number of procurement procedures (at the level of

companies and the HEP Group itself); increasing the level of procurement management or reducing risk during the execution of contracts and the use of modern e-tools.

During 2020, the HEP Group carried out 719 public procurement procedures, of which 44.9 percent related to the procurement of goods, 20.6 percent to works and 34.5 percent to services.

The total value of the performed procedures amounts to HRK 6,164,360,036.06, of which 23.3 percent refers to the procurement of goods, 60.3 percent to the procurement of works and 16.4 percent to the procurement of services.

The value of simple procurement, i.e. procurement of goods and services with an estimated value of up to HRK 200,000 and works up to HRK 500,000 in 2020 amounts to a total of

HRK 496,559,058.77. Out of the Two "green procurement" prototal amount, the largest share belongs to the procurement of goods in the amount of HRK 220.698.342.59.

In 2020, 116 procurement procedures were carried out on the basis of exemptions from the application of the Public Procurement Act with a total value of HRK 708,206,761.99, while in 2019 101 procurement procedures were carried out on the basis of exemptions with a total value of HRK 1,042,040,583.

cedures were carried out: procurement of electric and plug-in hybrid passenger cars and procurement of photocopy paper.

The total number of suppliers for the HEP Group in 2020 was 8,760, of which 8,579 were domestic and paid a total of HRK 11,863,610,460.05 and 181 foreign suppliers were paid HRK 5,188,478,652.08.

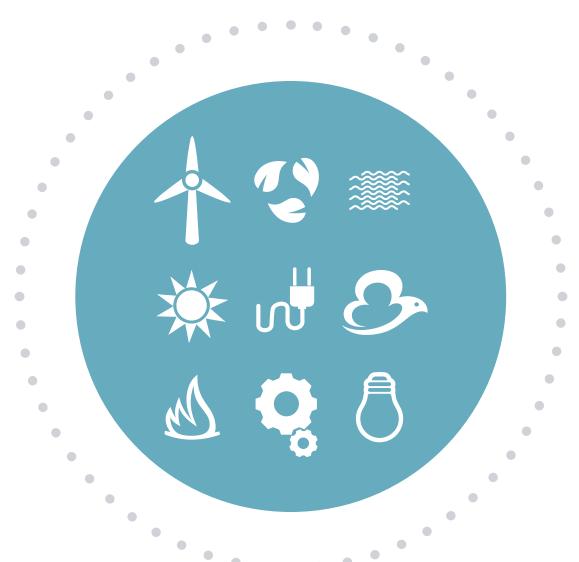
During 2020, there were no significant changes in the procurement system or supplier selection.

Economic entities in public procurement procedures are provided with legal protection by filing a complaint with the State Commission for the Control of **Public Procurement Procedures** (DKOM).

By cooperating with suppliers from all Croatian counties, HEP indirectly influences the development of the economy in these local communities.

Representation of domestic suppliers by county and value of procurement:

COUNTY	Total number of partners	Procurement value
City of Zagreb	2076	7,698,072,574.87
Vukovar-Srijem County	276	1,755,813,709.67
Split-Dalmatia County	739	1,030,622,577.41
Primorje-Gorski Kotar County	629	270,388,419.66
Zagreb County	470	247,627,729.76
Varaždin County	423	188,823,272.95
Istria County	543	170,980,517.41
Osijek-Baranja County	721	170,706,691.79
Brod-Posavina County	185	135,750,116.06
Karlovac County	312	123,063,952.24
Zadar County	340	108,939,967.90
Lika-Senj County	208	62,371,258.66
Krapina-Zagorje County	262	53,240,531.96
Međimurje County	212	48,738,054.66
Sisak-Moslavina County	219	43,868,443.91
Šibenik-Knin County	274	41,614,803.52
Virovitica-Podravina County	293	28,631,862.10
Dubrovnik-Neretva County	331	28,254,151.18
Bjelovar-Bilogora County	214	14,798,827.62
Požega-Slavonia County	220	13,180,912.32
Koprivnica-Križevci County	206	10,032,117.79





Sustainable management of environmental impacts

The impacts of HEP's operations, i.e. generation and distribution of electricity and heat and gas distribution on the environment and management of these impacts are presented according to six environmental objectives of the EU Taxonomy: climate change mitigation, climate change adaptation, pollution prevention and control, sustainable use and protection of waters and the sea, the protection and restoration of biodiversity and ecosystems, as well as waste management and the transition to a circular economy.

With each of the six objectives, we listed the impact of business on the environment, presented the current situation through selected indicators, listed risks and described ways to manage risks, described projects and activities we carry out to reduce our environmental impact, and presented goals for the future.

Contribution to the UN SDGs:















Material topics:

climate change mitigation adaptation to climate change sustainable use and protection of waters and the sea transition to a circular economy pollution prevention and control protection and restoration of biodiversity and ecosystems

ESG criteria:

greenhouse gas emissions ${\rm CO_2}$ emissions intensity emissions into air - ${\rm NO_{x'}}$ ${\rm SO_{2'}}$ CO and ${\rm PM_{10}}$

energy management
water and sea use and
protection
biodiversity protection

waste management power plant available capacity and fuel consumption pacts of our business on the on the environment, and enerenvironment through certified integrated management sys- cording to the ISO 50001: 2018 tems introduced according to standard are certified in HEP ISO standards in the companies Proizvodnja, HEP ODS, HEP d.d. HEP d.d., HEP Proizvodnja, HEP ODS, HEP Toplinarstvo, HEP Upravljanje imovinom and HEP Opskrba.

ly related to the reduction of were no non-compliances with

gy management systems acand HEP Upravljanje imovinom, while the introduction of the system in HEP Toplinarstvo is in progress.

HEP Proizvodnja, HEP Topli- Compliance of HEP's operations narstvo, HEP ODS, HEP d.d. and with regulations in the field of HEP Upravljanje imovinom have environmental protection is certified environmental man- determined by inspections unagement systems according to der the authority of the State the ISO 14001: 2015 standard. Inspectorate of the Republic Energy management is direct- of Croatia. During 2020, there

We manage the recognized im- the impact of HEP's operations the provisions of legal requlations in the field of environmental protection or exceeding the prescribed limit values of emissions into the environment, which confirms the constant care for the environment.

> HEP's projects and activities carried out to meet environmental objectives, although described in one chapter, have an impact on more or all environmental objectives. To finance projects and measures in 2020, we used our own funds, loans and funds from EU funds.

Total costs and investments into environmental protection in 2020

ENVIRONMENTAL PROTECTION AREA	Costs of regular operations / HRK mil	Investments / HRK mil
Air and climate	1.81	2.27
Waste water	1.45	0.00
Waste	7.11	5.80
Protection of soil and underground waters	0.19	0.05
Protection of nature and landscape	12.75	1.11
Other – fees and implementation of energy efficiency measures in final consumption	122.77	26.05
Total in 2020	146.08	35.29

Goals 1 and 2 Climate change mitigation and adaptation













As part of the European Union. by planning and implementing measures in strategic and planning documents for sectors that affect the climate, Croatia contributes to the achievement of the objectives of the Paris Agreement and the European Green Deal.

into the air. HEP's CO₂ sourc- ated by HEP Toplinarstvo. es are thermal power plants (TPPs), thermal power plants heating plants (TE-TO and EL-

Electricity and heat generation TO), bioenergy plants (BE-TO) are among the sectors that have and city heating boilers. Operaan impact on the climate due to tor for TPPs, TE-TO, EL-TO and the use of fossil fuels and the BE-TO is HEP Proizvodnja, while release of carbon dioxide (CO_a) boilers for city heating is oper-

.

Reduction of HEP's CO₂ emissions from 2005 to 2020 and adaptation to climate change

power plants have been included in the European Greenhouse Gas Emissions Trading System (EU-ETS) since 1 January 2013. In accordance with the provisions of the revised Directive on greenhouse gas emissions trad-

All HEP thermal and thermal ing EU-ETS Directive 2018/410 sions from HEP's TPPs, TE-(EC), the goal of reducing emis- TO and EL-TO in 2005 were sions should be achieved most 4.672.000 tons, and 2.552.354 cost-effectively within the EU- tons in 2020, while total CO, ETS. EU-ETS plants in the EU emissions from HEP sourcmust reduce their greenhouse es were 2,655,404 tons. HEP's gas emissions by 43% by 2030 plants in the EU-ETS system recompared to 2005. CO₂ emis- duced CO₂ emissions by 45.37 2005, i.e. by 2.37 percent more than the EU-ETS sector of the EU ten years before the target 2030.

The reduction of these emissions was achieved by construction, acquisitions and reconstruction of renewable energy sources and high-efficiency cogeneration, by ceasing to use heavy fuel oil and switching to gas and gas oil, the cessation of operation of units that do not meet the conditions prescribed by environmental permits and the reduction of the operation of TPP Plomin 2, which uses coal as a fuel. Also, it was also achieved by continuing to take over 50 percent of the electricity produced from the Krško nuclear power plant, construction and maintenance of energy storage facilities such as heat accumulators, reversible hydropower plants and the implementation of measures to increase energy efficiency and energy savings.

percent by 2020 compared to HEP is also reducing CO₂ emissions from traffic by replacing some official vehicles that use fossil fuels, electric and hybrid vehicles and the construction of the ELEN network of publicly available electric vehicle charging stations.

> Such a diverse generation portfolio, implementation of measures to increase energy efficiency and energy savings in HEP, but also for customers by implementing projects according to the ESCO model, and advice and information to customers and users on energy savings and energy efficiency, enable HEP to adapt generation to climate change, which affect rapid and sudden changes in weather conditions. TPPs, TE-TO, EL-TO and BE-TO, as well as NPP Krško ensure the security of the system and the supply of energy to customers when generation from renewable sources is reduced or disabled.

Continuous investments in existing equipment and plants, energy storage systems and finding new and applicable technical solutions enable the availability of generation plants and distribution networks, especially electricity distribution managed by HEP ODS in times of strong winds and low temperatures and ice that can cause significant network damage. By constantly investing in the electricity distribution network, we are creating the preconditions for the acceptance of an increasing number of renewable sources.

The indicators we have chosen to monitor climate impact and adapt to climate change are: carbon dioxide (CO_a) emissions, management of equipment containing sulfur hexafluoride (SF₆) and ozone-depleting substances, and the intensity of CO_a emissions.

Risks: climate impact and adaptation of business to climate change

HEP's operations related to cliand sudden changes in weath-

Significant identified risks to the precipitation falls during autumn and spring, and the least mate change and adaptation in summer when there is a high to climate change are rapid demand for energy due to the operation of air conditioners. er conditions that require quick HEP manages these risks by inand efficient adaptations and vesting in generation plants that significant financial invest- use different energy sources, ments. There is also a risk of renovating existing and building redistribution of precipitation new high-efficiency cogeneraduring the year because most of tion and renewable sources, us-

ing lower-carbon fuels, increasing energy efficiency and energy savings, and applying technical solutions to preserve assets and invest in employee education. An increase in the price of greenhouse gas emission units is also a significant risk. This risk is managed by purchasing emission units in quantities corresponding to the veriAll HEP thermal and heating power plants are included in the European Greenhouse Gas Emissions Trading System

fied CO, emissions from HEP's sources in the EU-ETS system and by continuously monitoring the change in the market price at the same time as the procurement of fossil fuels.

Goals: reducing the impact on the climate and adapting the business to climate change

In order to harmonize HEP's operations with the requirements of the EU climate and energy policy, by 2030 we plan to reduce greenhouse gas emissions by 50 percent from EU-ETS plants compared to 2005 and increase the share of energy produced from renewable sources by 50 percent in compared to 2017. We took 2017 as the base year for increasing the share of electricity produced from renewable sources because we were then preparing a strategic document for the development of HEP until 2030.

Each of the HEP Group companies with certified energy management systems according to the ISO 5001:2018 standard has goals for reducing energy consumption and achieving savings. We will continue to expand the ELEN network of publicly availa-

replace our official vehicles that use fossil fuels with hybrid and electric vehicles.



CO₂ emissions from HEP sources

In the process of electricity and heat generation, CO₂ greenhouse gas is released. The calculation of CO₂ emissions uses the methodology and emission factors defined in the approved GHG emission monitoring plans for HEP Proizvodnja's thermal power plants, i.e. those prescribed by the Intergovernmental Panel on Climate Change (IPCC) for HEP Toplinarstvo's

plants. Total CO, emissions from all HEP sources amounted to 2.655.404 tons and remained almost at the same level as in 2019. TPP Plomin 1 ceased to operate in May 2017, but the auxiliary boiler room, which uses gas oil as fuel, produces thermal energy for heating the administrative building and workshops.



CO₂ emissions from HEP sources in 2020, and comparison to 2019

OPERATOR	Outlet	CO ₂ emission t/y - 2020	CO ₂ emission t/y - 2019	Index 2020/2019
HEP Proizvodnja				
	TPP Plomin 1	203	59	3.44
Thermal power plants for	TPP Plomin 2	1,021,564	1,349,302	0.76
electricity generation	TPP Rijeka	1	1	1.00
	CCPP Jertovec	10,961	986	11.12
	TE-TO Zagreb	773,758	648,733	1.19
Thermal power plants – heating plants for electricity and heating	EL-TO Zagreb	201,302	206,067	0.98
energy generation	TE-TO Sisak	487,333	299,309	1.63
3, 3	TE-TO Osijek	57,232	66,473	0.86
Total thermal power plants and thermal power plants – heating plants		2,552,354	2,570,930	0.99
Bioenergy plants for electricity	BE-TO Sisak	42,752	36,187	1.18
and heating energy generation	BE-TO Osijek	30,516	40,585	0.75
Total bioenergy plants		73,268	76,772	0.95
Total HEP Proizvodnja		2,625,622	2,647,702	0.99
HEP Toplinarstvo				
	Bregana – 2 boilers	202	313	0.65
	Samobor - 2 boilers	2,739	2,808	0.98
City heating boilers	Velika Gorica - 12 boilers	13,866	13,155	1.05
City fleating bollers	Zaprešić - 7 boilers	3,538	3,826	0.92
	Zagreb - 19 boilers	8,691	12,174	0.71
	Osijek - 1 boiler	746	734	1.02
Total city heating boilers		29,782	33,010	0.90
Total HEP Toplinarstvo		29,782	33,010	0.90
Total HEP Group		2,655,404	2,680,712	0.99

cated in seven counties. Out of tria, 37.05 percent in the City of Osijek-Baranja County, Zagreb a total of 2,655,404 tons of CO₂ Zagreb, 19.96 percent in the Siemitted in 2020, 38.48 percent sak-Moslavina County, and the

HEP's carbon sources are lo- was emitted in the County of Is- remaining 4.51 percent in the and Krapina-Zagorje counties.

Share of CO₂ emissions from HEP sources by counties in 2020

COUNTY	CO ₂ emission t/y - 2020	Share of CO ₂ emissions from HEP sources by counties in 2020, %
City of Zagreb	983,751	37.05
Krapina-Zagorje County	10,961	0.41
Istria County	1,021,767	38.48
Osijek-Baranja County	88,494	3.33
Primorje-Gorski Kotar County	1	0.00
Sisak-Moslavina County	530,085	19.96
Zagreb County	20,345	0.77
Total	2,655,404	100.00

Obligations of HEP's plants in the EU-ETS for 2020 fulfilled

Emission reports for 2020 were sak and BE-TO Osijek that use respond to verified emissions verified by an independent ver- untreated wood chips as fuel, in within the legally prescribed ifier and submitted to the Ministry of Economy and Sustainable Development (MESD). For chase emission units. In 2020, each ton of CO₂ emitted from HEP paid HRK 458.1 million for the electricity generation process, HEP must purchase one for plants in the EU-ETS. Greenemission unit and for a part of house gas emission units for CO₂ emissions emitted from the 2020 were submitted to HEP's heat generation process. For accounts opened in the EU

accordance with EU-ETS rules, deadline. there is no obligation to purthe purchase of emission units CO₂ emissions from BE-TO Si- Register in quantities that cor-

For the part of CO₂ emissions from the generation of thermal energy that is delivered to the central heating system, the European Commission allocates free emission units to EU-ETS taxpayers, based on the request submitted to MESD.

Free emission units allocated to HEP for 2020

OPERATOR	Plant	Free emission units in 2020	Share of free emission units in total CO ₂ emissions in the EU-ETS, %
	TE-TO Zagreb	59,713	2.34
HEP Proizvodnja	EL-TO Zagreb	69,773	2.73
HEP PIOIZVOUIIJa	TE-TO Sisak	17,446	0.68
	TE-TO Osijek	7,453	0.29
Total		154,385	6.05

the EU-ETS because their nom- the operator. Boilers for heating inal input thermal power is low- cities emitting more than 450 er than 20 MWt, except for the tons of CO₂ per year pay a fee Osijek plant in HEP Toplinarst- to the Fund for Environmental vo, which is excluded from the Protection and Energy Efficien-

Boilers for city heating are not in trading system at the request of cy based on the Decision on the unit fee for CO₂ emissions, in accordance with the average market price per unit in the previous year. March of the current year for the previous year.

Intensity of greenhouse gas emissions CO₂ in 2020

Republic of Croatia).

of electricity was produced from

Electricity in 2020 was pro- was procured outside the sysduced from TPPs, TE-TO, EL-TO, tem. Thermal energy in 2020 BE-TO, hydropower plants, so- was produced from TE-TO, ELlar power plants, wind farm and TO, BE-TO and boiler rooms Krško NPPs (50% owned by the for heating cities. During 2020, 2.32 TWh of thermal energy was produced, and all thermal During 2020, a total of 12.5 TWh energy was produced from HEP sources. For the calculation of HEP's sources, and 6.15 TWh CO₂ emission intensities, direct

emissions (Scope 1) discharged from sources owned by HEP were taken and electricity purchased outside the system was not taken into account.

The intensity of CO₂ emissions for electricity produced from TPPs, TE-TO, EL-TO, BE-TO for 2020 was 524 g CO₂/kWh, while



Aiming to reduce the impact on climate changes, we are developing plants that use renewable energy sources

intensity of CO₂ emissions for plants, TE-TO, EL-TO, BE-TO and 179 g CO₂/kWh. the produced thermal energy thermal energy from TE-TO, ELfrom TE-TO, EL-TO, BE-TO and TO, BE-TO and boiler rooms for

the intensity of emissions for boiler rooms for city heating city heating was 414 g CO₂/kWh electricity produced from all amounted to 220 g CO₂/kWh in in 2020. The total intensity of HEP sources (TPPs, TE-TO, EL- 2020. The total intensity of CO₂ CO₃ emissions for the genera-TO, BE-TO, WPP, SPP and 50% emissions for the generation of tion of electricity and heat from NEK) was 172 g CO₂/kWh. The electricity from thermal power all HEP sources in 2020 was

Equipment containing sulfur hexafluoride (SF_e)

Greenhouse gas sulfur hexaflu- greenhouse potential (GWP) of HEP ODS reports to MESD every oride (SF_c) is used in switch- SF_c relative to CO₂ is 23,500, year on equipment containing gear - high voltage appliances according to the Fifth IPPC As- SF_c. and assemblies. The global sessment Report 2014 (AR5).

Equipment containing SF,

Consumption of halo	Consumption of halogenated hydrocarbons (HFC. PFC) and SF ₆		2020
	Amount of switchgear (pcs)	12.332	13.143
Switchgear and control gear - high- voltage appliances and assemblies	Filling the switch gear with SF_6 gas (t) Leakage of SF_6 from equipment in operation (kg) Handling used SF_6 SF_6 gas handling and switching equipment after service life (kg)	32.59 38.56 ** 64.8	34.60 60.12 ** 55.4

Ozone depleting substances

Pursuant to the Law on Climate and equipment as well as sta- by companies and entities that

and servicing of refrigeration fluorinated greenhouse gases activity. and air conditioning devices located in HEP are performed

Change and Ozone Layer Pro- tionary fire-fighting systems have a license from the Ministection, collection, leak testing, and fire extinguishers contain- try of Economy and Sustainable installation and maintenance ing controlled substances or Development to perform this

Energy management

HEP Elektra, HEP Opskrba, HEP Liabilities in the HEP Group. For Toplinarstvo and HEP Plin are in 2020, a consolidated report on the System of Energy Savings realized savings was prepared Obligations and the Ministry of and submitted to MESD, which the Economy and Sustainable confirmed the realization of the Development (MESD) deter- obligation of 112.96 GWh of enmines the amount of the annual obligation for savings based on the obligation of energy savings the delivered energy. HEP ESCO every year and it is necessary coordinates activities related to achieve greater savings, so donation projects financed from to the System of Energy Saving we at HEP plan to fulfill them by the ZelEn fund.

ergy savings. MESD determines

developing new programs and projects aimed at achieving energy savings. In addition to the implementation of projects and energy management measures in our own buildings and facilities, we have implemented projects to achieve energy savings for HEP Opskrba customers and

Energy consumption in HEP Proizvodnja

All plants operated by HEP on average consumption and and a consolidated energy audit Proizvodnja (HPP, TPP, TE-TO, generation for the period from EL-TO, BE-TO) prepared Energy 2016 to 2018, analyses of ener-Inspection Reports using data gy indicators for 2019 and 2020

Energy consumption indicators for HEP Proizvodnja in 2019 and 2020

	2019	2020	2020/2019, %
Total energy consumption (all energy and energy products) / kWh	16,069,730,374.85	16,985,127,131.15	105.70
Energy consumption for the generation process / kWh	16,001,749,422.05	16,949,202,899.32	105.92
Energy consumption outside the generation process / kWh	33,967,962.08	35,924,231.83	105.76
Sanitary and technological water consumption in thermal power plants / m ³	262,858,953.55	203,827,063.96	77.54
Total sanitary water consumption / m ³	130,574.62	88,047.62	67.43
Total energy produced / kWh	12,060,847,799.83	12,392,856,635.20	102.75
Total delivered energy / kWh	11,669,407,794.28	12,006,537,384.78	102.89
Total number of employees	1,991	1,987	99.15
Total area [m²] (spaces people occupy and work in)	127,275.94	127,110.25	99.87
Total fuel consumption for vehicles / kWh	3,206,240.54	2,648,028.77	82.58

improvement trend for most in- energy base set by the energy mentation of numerous invest-

The presented data indicate an 2019, but also in relation to the achieved through the impledicators in 2020 compared to audit. A positive trend has been ments in energy efficiency in re-

cent years - construction of new will it be possible to assess the of business activities of external and reconstruction of existing plants and buildings, installation of new heating and air conditioning systems, LED lighting, etc. Only in the following period tion, work from home, reduction

impact of the COVID-19 pan- contractors) in relation to savdemic in 2020 on the decline in ings achieved by implementing energy consumption outside the energy efficiency measures. generation process (self-isola-

Indicators of energy efficiency for HEP Proizvodnja (energy effect EnPI) in 2019 and 2020

	2019	2020	2020/2019 (%)
Energy consumption consumed kWh / delivered kWh	1.25358	1.25088	99.78
Energy consumption (lighting, heating, air conditioning) kWh / employee	17,466.09	17,301.71	99.06
Energy consumption (lighting, heating, air conditioning) kWh / m²	387.21	392.71	104.11
Sanitary water consumption m³ / employee	54.19	38.99	71.95
Water consumption in thermal power plants m³ / kWh	0.03085	0.02646	85.77

Energy consumption in HEP Proizvodnja

Fuel	2019	2020	2020/2019 (%)
Coal - tons	579,800	434,588	74.95
Forest biomass - tons	46,384	59,816	128.96
Gas oil and fuel oil light - tons	1,835	2,776	151.28
Natural gas - MWh	6,128,772	7,673,135	125.20

Energy consumption in HEP ODS

In 2020, HEP ODS conducted new energy audits of the process at 133 locations, which resulted in the adoption of a new energy base (EnB 2019) to compare significant energy consumption in the next five years.

At all locations of the energy review process, significant energy

cording to the defined criteria, consumption in HEP ODS. significant energy consumption accounts for about 75 percent of total energy consumption (without losses). The largest

consumption is monitored and share in the total significant enrecorded on a monthly basis ergy consumption has fuel (dieand compared with the energy sel and petrol) with a share of 47 base and the previous year. Ac- percent of the total significant

Energy consumption in HEP ODS

Total energy consumption by years (in kWh)	2019	2020	2020/2019 (%)
Electricity	14,711,403	13,193,515	89.7
Thermal energy	2,414,069	2,376,488	98.4
Gas	2,895,742	2,995,848	103.4
Fuel	29,386,849	27,227,255	92.6
Significant energy consumption	44,601,856	42,109,357	94.4

Energy Performance Indicators (EnPI) in HEP ODS in 2019 and 2020

Average value of energy performance indicators in HEP ODS by years	2019	2020
Diesel - passenger cars (I / 100 km)	6.6	6.9
Diesel - trucks (I / 100 km)	12.2	12.5
Petrol - passenger cars (I / 100 km)	6.7	5.9
Cooling - electricity (kWh / SDH*)	199.5	299.8
Heating - gas (kWh / SDG**)	103.6	86.6
Heating - electricity (kWh / SDG)	54.2	69.9
Heating - electricity, hot water, steam, gas and heating oil (kWh / m³)	47.5	31.4

^{*} SDG - degree of heating days, ** SDH - degree of cooling days

The values of energy perfor- Total significant energy con- was caused by the construction a continuously declining trend.

or 7.4 percent. The 8.3 percent EnB 2019. increase in gas consumption

mance indicators (EnPI) for sig-sumption in 2020 decreased by of new gas boilers used to heat nificant energy consumption, 2,492,499 kWh or 5.6 percent their own business premises as key indicators of energy effi- compared to EnB in 2019. In and the transition from fuel oil ciency and energy consumption 2020, compared to EnB 2019, to gas. Energy costs in business management in HEP ODS, show there was a decrease in fuel facilities in 2020 were reduced consumption by 2,159,594 kWh by 7.45 percent compared to

Energy consumption of HEP Toplinarstvo

All observed indicators - con- ter show a decline in 2020 comsumption of electricity, natural pared to 2019. gas, extra light fuel oil and wa-

Energy consumption in HEP Toplinarstvo 2019 and 2020

Energy source	2019	2020	2020/2019 (%)
Electricity consumption / (kWh)*	1,080,054	1,070,959,00	99.16
Natural gas consumption / (kWh)	137,661,861	130,724,192	95.96
Extra light fuel oil consumption / (kWh)	26,525,928	20,412,862	76.95
Water consumption / (m³)	3,542	2,720	76.79

Excluding energy consumption for two boiler rooms, consuming 37,840.00 kWh of electricity in 2020

In its regular work, HEP Topli- monitored through the national narstvo strives to reduce losses in the network and increase the efficiency of heat transmission, and investments are planned accordingly. Savings are monitored by projects according to the investment plan, and as the obligor of savings in final consumption, the implemented projects and measures are

system for monitoring, measuring and verifying energy sav-

Energy savings, and thus the reduction of CO₂ emissions, have been achieved through the complete reconstruction of thermal substations, the replacement of oil boilers with gas low-temper-

ature and condensing boilers, the revitalization of the hot water network and the implementation of distribution network management software. The implementation of these projects resulted in savings of a total of 9,077,744.67 kWh and a reduction of CO₂ by 3,236.01 tons.

Energy consumption at the HEP Group headquarters in Zagreb

itored and optimized in office erapplication. buildings at HEP's headquarters

Energy consumption is mon- via the ESCO Monitor® comput-

Total energy consumption at the HEP Group headquarters location in 2020

Energy source	2019	2020	2020/2019 (%)
Electricity [kWh]	1.758.004	1.800.056	102
Thermal energy [kWh]	1.743.395	1.980.217	114
Natural gas [kWh]	24.975	19.025	76

The increase in electricity and ployees at the HEP Group head- consumption was also due to heat consumption was due to quarters due to the application the application of epidemiologthe introduction of two-shift of epidemiological measures. ical measures in the HEP Group work and a longer stay of em- The decrease in natural gas headquarters.

Projects and activities to reduce HEP's impact on the climate and adapt business to climate change

from renewable energy sources, reduce the impact on climate put into operation the solar change and maintain the diversity of the product portfolio, began construction of several we build new and reconstruct other non-integrated solar powexisting generation plants using renewable energy sources, high-efficiency cogeneration and implement activities and measures to increase energy efficiency and energy savings.

In order to increase generation | Increasing generation from solar power plants. In 2020, HEP power plant Vis (3.5 MW) and er plants. At the end of 2019 and the beginning of 2020, he signed agreements on cooperation with the development of solar power plant projects with 11 local self-government units. A public

call for interested partners to express interest in the development and sale of RES projects in the Republic of Croatia was published in 2020 as well. By the end of 2020, HEP had 42 solar power plant projects in development with a total capacity of more than 800 MW, the largest of which is SPP Korlat (75 MW). During 2020, we continued our activities to obtain a decision on the acceptability of the project on the environment and the ecological network in order to obtain permits for the construction of new solar power plants and the procedures for amending existing permits for SPP Motovun, SPP Sv. Lovreč, SPP Petar Ludbreški, SPP Kosore Jug.

In order to reduce its own energy consumption, HEP continued to install integrated solar power plants on the roofs of its buildings and in 2020 put into operation 25 new ones, on the buildings of HEP ODS and HEP Proizvodnja. At the end of 2020, HEP had a total of 61 integrated SPPs. of which 52 in the status of a customer with its own generation, and nine in the system of incentives, with guaranteed purchase.

In order to reduce its own energy consumption. HEP continued to install integrated solar power plants on the roofs of its buildings



Starting generation from wind farms. In 2020, HEP's first wind farm, WPP Korlat (58 MW), began trial operation. During the year, the development of five more wind farm projects with a total capacity of about 400 MW was initiated and continued. Construction of new hydropow-

er plants. In 2020, activities related to the construction of new hydropower plants such as HPP Kosini, HPP Seni 2, RHPP Vinodol and small hydropower plants Peruća and Otočac continued.

Reconstructions and interven-

tions at Drava hydroelectric power plants. CThe goal of the reconstruction of HPP Varaždin is the replacement of electrical equipment of generation units with an increase in installed capacity and electricity generation, but also the reconstruction of the power plant to ensure continued operation and high operational availability in the future. Necessary permits have been obtained for the reconstruction of HPP Varaždin, and in 2020 the procedure for the procurement of main equipment was prepared.

During 2020, interventions and reconstructions began in HPP Čakovec - replacement of asphalt-concrete lining of the reservoir embankment, renovation of equipment of unit C and turbine equipment of units A and B,

plant by 20 MW, while the annual generation will reach at least 50 GWh

The reconstruction of HPP Senj will increase the installed power of the



overhaul of unit C in HPP Dubra-

Reconstructions and interven tions at hydroelectric power plants in PA HPP West. In 2020. the reconstruction of CHPP Fužine was completed, which included the replacement of the existing engine / generator that enables pumping from the Bajer reservoir to the Lokve reservoir, and its correctness and functionality play a key role in the Vinodol hydropower system.

Furthermore, during 2020, the first phase of the reconstruction the public procurement pro-

the installed power of the power plant will increase by 20 MW, which will enable an increase in annual generation of at least 50 GWh. With increased reliability and availability of the plant, the life of the power plant will be extended for the next 50 years and the costs of maintenance and operation of the plant will be reduced.

In 2020, the fourth, last phase of the reconstruction of HPP Ozalj 1 began, which is expected to be completed in 2021.

Reconstructions and intervenof HPP Senj was completed, and tions at hydroelectric power plants in PA HPP South. By the cedure for the main works and end of 2020, the main works equipment was underway. With have been completed and opand replacement of shafts and the reconstruction of HPP Senj, erating permits have been obrevitalization project of GHPP Zakučac, the largest hydroelectric power plant in Croatia. The project included the replacement of generation units and auxiliary plants, which extended the life of the power plant, increased power and generation, and the operation of the power plant is automated. The final works of arranging a part of auxiliary buildings and common facilities remain. In HPP Kraljevac, activities related to the replacement of the block transformer A and B systems and the reconstruction of the administrative building continued in 2020. During 2021, the replacement of RHPP Velebit's own consumption, cooling and drainage equipment will be completed.

Construction of heat accumulators. In EL-TO Zagreb, the construction of heat accumulators with a thermal capacity of TE-TO Zagreb. The project in-1,000 MWh and a thermal power of 150 MW is underway, with a ing of the TE-TO Zagreb plant difference in inlet and outlet water temperatures of 40 °C. The ciency and achieve energy and

tained for all four phases of the battery will optimize the operation of existing heat and power sources on site. Electricity will be able to be produced when it is most commercially favorable, regardless of the constraints arising from the interconnection process in which electricity generation is dependent on current heat demand. The construction of heat accumulators saves energy, reduces fuel consumption and the emission of pollutants into the air, which contributes to reducing the impact on the climate, adapting business to climate change and preventing pollution. In order to increase the flexibility of the unit A unit and the new, planned combi-cogeneration plant, in 2020 the activities of construction of heat accumulators in TE-TO Osijek began.

> **Reconstruction of lighting using** energy efficiency measures in cludes indoor and outdoor lightin order to increase energy effi-

maintenance savings. Completion of all works is expected during the first quarter of 2021.

Revitalization of the thermal energy distribution system in Zagreb and Osijek Hot water network replacement projects in Zagreb and Osijek in the period from 2021 to 2023 will increase the reliability and security of end customers' supply of thermal energy, but also increase the energy efficiency of the system and reduce emissions into the environment. The projects are co-financed by European Union

Energy savings for own consumption. Energy savings are achieved by applying HEP's energy management system, i.e. implementing HEP ESCO's program called HEP Zelen plus. It includes solar power plants on HEP buildings, the establishment of a system for remote reading and optimization of energy consumption in HEP buildings, measures to increase energy efficiency in HEP buildings and the e-course Green Office.

Goal 3 Pollution prevention and control















Electricity and heat generation and energy distribution to customers affect the environment.

Thermal power plants by emitting pollutants into the air affect the climate and air quality, water and sea conditions, biodiversity and waste generation. Hydropower, wind and solar power plants affect biodiversity and waste generation. The infrastructure for the distribution of electricity, heat and gas to customers can, depending on where they are located, affect biodiversity and waste generation. The aim is to prevent pollution at combustion devices. Medium

source and to control pollution if environment.

The Industrial Emissions Directive applies to HEP's thermal power plants with an input rated thermal power equal to or greater than 50 MWt (large combustion plants), i.e. TPPs, PP-HPs The indicators we have chosen and TPP-HPS. Heating devices with a nominal thermal input of 1 to 50 MWt, i.e. auxiliary boilers, high- and low-pressure boilers in TPPs, CHPP and EL-TO, bi- and PM₁₀ particulate matter, and oenergy and boilers for urban heating, are among the medium

combustion plants do not have pollutants are released into the the obligation to obtain an environmental permit but to be entered in the register of medium combustion plants maintained by the Ministry of the Economy and Sustainable Development (MESD).

> for pollution prevention and control are emissions of sulfur dioxide (SO₂), nitrogen oxides (NO₂), carbon monoxide (CO) the impact of EL-TO Zagreb and TPP Plomin on air quality (immissions).

Environmental permits

All HEP's existing TPPs, TE-TO environmental permits. During 2020, the expert basis for amending environmental per-

Commission on establishand EL-TO have decisions on ing conclusions with the best environmental permits through available techniques for large combustion plants. In 2020, an application for an environmenmits for all existing plants was tal permit for the new block L submitted to MESD in order to was also submitted for EL-TO comply with the Implement- Zagreb. The public and the ining Decision of the European terested public are involved in the MESD website.

the procedures for obtaining public consultations, and the ongoing procedures, decisions on environmental permits and documentation on the basis of which environmental permits were obtained are published on

Environmental and ecological network impact assessment procedures

During 2020, requests were station. For SPP Sv. Lovreč and of the combi-cogeneration plant submitted for an assessment of the reconstruction of the HPP the need to assess the impact Dubrovnik engine room and of the project on the environ- the reconstruction of the dement for the solar power plant fensive embankment along the SPP Motovun, SPP Sv. Lovreč, Dubrava HPP derivation canal Sv. Petar Ludbreški, reconstruct the authorized ministry brought tion of the engine room of HPP Dubrovnik, reconstruction of the do not need to implement the defensive embankment along impact assessment procedure the derivation channel of HPP Dubrava, emptying and cleaning of the Kruščica reservoir and cleaning of sediment from impact of the project on the enthe basin of the Lič pumping vironment for the construction

the decision that these projects with proscribed measures of environmental protection. In 2020, the process of assessing the

TE-TO Osijek began. In 2020, the ecological network impact assessment process for several smaller interventions was also started. The public and the interested public participate in these procedures, and information on the implementation of the procedure, documentation in the procedure and decisions are published on the website of MESD, i.e. the county offices for environmental protection, physical planning and construction.

Risks: pollution prevention and control

Identification and evaluation of standards and the obligation to risks related to pollution prevention and control, planning and decision on environmental acimplementation of activities and measures are achieved through and measures from environcertified integrated manage- mental permits. Risk management systems according to ISO ment in the field of pollution

implement measures from the ceptability, ecological network

prevention and control in 2020 was effective, and the fact that no irregularities were found in the inspections carried out by the State Inspectorate of the Republic of Croatia speaks in favor of the above.

Goals: pollution prevention and control

The targets we have set for solutions on environmental ourselves by 2030 for pollution permits, high-efficiency cogenprevention and control are the eration and the procurement of replacement of plants for which materials, products and equip-

ment designed in accordance with the objectives of the circular economy when possible and

\bullet Emissions of nitrogen oxides (NO $_{\rm x}$), sulfur oxide (SO $_{\rm 2}$), carbon monoxide (CO) and particulate matter PM $_{\rm 10}$

HEP's sources of nitrogen oxides (NO₂), sulfur oxide (SO₂), carbon monoxide (CO) and PM₁₀ particulate matter are TPPs. TE-TO, EL-TO, BE-TO as well as city heating boilers. Emissions from HEP's TPPs, TE-TO and EL-TO are measured continuously, by automatic measuring systems (AMS), and data are transmitted via a computer network to the

ing of Pollutant Emissions from Stationary Sources managed by MESD. Emissions from BE-TO and boiler rooms for city heating are measured by periodic measurements.

During 2020, a total of 128.61 tons of SO₂, 1,531.31 tons of NO₂, 36.62 tons of PM₁₀ suspended

Information System on Monitor- particles and 190.62 tons of CO were emitted from HEP's TPPs, TE-TO and EL-TO. During 2020, HEP's BE-TO discharged 15.26 tons of SO₂, 47.84 tons of NO₃, 25.36 tons of PM₁₀ and 15.84 tons of CO, while 12.91 tons of SO₂, 44.78 tons of NO₂, 0.13 tons of PM₁₀ and 18.94 tons of CO were discharged from city heatina boilers.



Emissions from HEP's TPPs, TE-TO and EL-TO are measured continuously, by automatic measuring systems

ber of operating hours of TPP emissions from urban heating 2019 by 41 percent.

SO, emissions from HEP's ther- Plomin 2. SO, emissions from boilers decreased by 29 percent mal power plants and thermal HEP's BE-TO increased com- compared to 2019 due to an inpower plants - heating plants pared to 2019. year due to the crease in the share of gas comdecreased by 48 percent com- increased number of working pared to liquid fuels. Total SO, pared to 2019, which is a con- hours and the quality of un- emissions from all HEP sources sequence of the reduced num- treated wood chips, while SO₂ decreased in 2020 compared to

SO₂ emissions from HEP sources by discharges and operators in 2019 and 2020

OPERATOR	Outlet	SO ₂ emissions t/y - 2020	SO ₂ emissions t/y - 2019	Index 2020/2019	County
HEP Proizvodnja					
	TPP Plomin 1 TPP Plomin 2	0.00 105.93	0.07 229.17	0.00 0.46	Istria County
Thermal power plants for electricity generation	TPP Rijeka	0.00	0.00	0.00	Primorje- Gorski Kotar County
	CCPP Jertovec	0.17	0.01	12.36	Krapina- Zagorje County
	TE-TO Zagreb	11.18	9.40	1.19	City of Zagreb
	EL-TO Zagreb	3.48	3.00	1.16	City of Zagreb
Thermal power plants – heating plants for electricity and heating energy generation	TE-TO Sisak	7.02	4.23	1.66	Sisak- Moslavina County
	TE-TO Osijek	0.83	1.20	0.69	Osijek- Baranja County
Total thermal power plants and thermal power plants – heating plants		128.61	247.09	0.52	
Bioenergy plants for electricity	BE-TO Sisak	14.84	0.22	67.76	Sisak- Moslavina County
and heating energy generation	BE-TO Osijek	0.42	0.62	0.68	Osijek- Baranja County
Total bioenergy plants		15.26	0.84	18.17	
Total HEP Proizvodnja		143.87	247.93	0.58	

OPERATOR	Outlet	SO ₂ emissions t/y - 2020	SO ₂ emissions t/y - 2019	Index 2020/2019	County
HEP Toplinarstvo					
	Bregana – 2 boilers	0.37	0.97	0.38	Zagreb County
	Samobor - 2 boilers	0.00	0.00	0.00	Zagreb County
	Velika Gorica - 12 boilers	9.79	12.84	0.76	Zagreb County
City heating boilers	Zaprešić - 7 boilers	0.18	0.47	0.38	Zagreb County
	Zagreb - 19 boilers	2.57	3.99	0.64	City of Zagreb
	Osijek - 1 boiler	0.00	0.00	0.00	Osijek- Baranja County
Total city heating boilers		12.91	18.28	0.71	
Total HEP Toplinarstvo		12.91	18.28	0.71	
Total HEP Group		156.78	266.21	0.59	

SO₂ emissions from HEP sources by counties in 2020

COUNTY	SO ₂ emissions t/y - 2020	Share of SO ₂ emissions from HEP sources by counties 2020%
City of Zagreb	17.23	10.99
Krapina-Zagorje County	0.17	0.11
Istria County	105.93	67.59
Osijek-Baranja County	1.25	0.80
Primorje-Gorski Kotar County	0.00	0.00
Sisak-Moslavina County	21.86	13.95
Zagreb County	10.34	6.60
Total	156.73	100.00

Total NO_x emissions from all cent, from city heating boilers

NO_v emissions depend on the HEP sources increased by 6% in by 3 percent, while NO_v emischamber, i.e. the temperature sions from HEP's TPPs, TE-TO 13 percent. and oxygen supply from the air. and EL-TO increased by 5 per-

conditions in the combustion 2020 compared to 2019. Emis- sions from BE-TO decreased by

NO_x emissions from HEP sources by discharges and operators in 2019 and 2020

OPERATOR	Outlet	NO _x emissions t/y - 2020	NO _x emissions t/y - 2019	Index 2020/2019	County
HEP Proizvodnja					
	TPP Plomin 1	0.00	0.06	0.00	Istria County
	TPP Plomin 2	482.89	577.13	0.84	Istria County
Thermal power plants for electricity generation	TPP Rijeka	0.00	0.00	0.00	Primorje- Gorski Kotaı County
	CCPP Jertovec	42.80	3.79	11.30	Krapina- Zagorje County
	TE-TO Zagreb	255.52	205.56	1.24	City of Zagreb
Thermal power plants – heating	EL-TO Zagreb	446.75	462.21	0.97	City of Zagreb
plants for electricity and heating energy generation	TE-TO Sisak	274.83	177.96	1.54	Sisak- Moslavina County
	TE-TO Osijek	28.52	29.10	0.98	Osijek- Baranja County
Total thermal power plants and thermal power plants – heating plants		1,531.31	1,455.81	1.05	
Bioenergy plants for electricity	BE-TO Sisak	24.89	20.73	1.20	Sisak- Moslavina County
and heating energy generation	BE-TO Osijek	22.95	34.06	0.67	Osijek- Baranja County
Total bioenergy plants		47.84	54.79	0.87	
Total HEP Proizvodnja		1,579.15	1,510.60	1.05	

OPERATOR	Outlet	NO _x emissions t/y - 2020	NO _x emissions t/y - 2019	Index 2020/2019	County
HEP Toplinarstvo					
	Bregana – 2 boilers	0.31	0.24	1.30	Zagreb County
	Samobor - 2 boilers	4.37	1.56	2.80	Zagreb County
	Velika Gorica - 12 boilers	20.02	9.10	2.20	Zagreb County
City heating boilers	Zaprešić - 7 boilers	5.6	1.88	2.98	Zagreb County
	Zagreb - 19 boilers	13.29	8.06	1.65	City of Zagreb
	Osijek - 1 boiler	1.19	1.17	1.02	Osijek- Baranja County
Total city heating boilers		44.78	22.01	2.03	
Total HEP Toplinarstvo		44.78	22.01	2.03	
Total HEP Group		1,623.93	1,532.60	1.06	

NO_x emissions from HEP sources by counties in 2020

COUNTY	NO _x emissions t/y - 2020	Share of NO _x emissions from HEP sources by counties 2020%
City of Zagreb	715.56	44.06
Krapina-Zagorje County	42.80	2.64
Istria County	482.89	29.74
Osijek-Baranja County	52.66	3.24
Primorje-Gorski Kotar County	0.00	0.00
Sisak-Moslavina County	299.72	18.46
Zagreb County	30.30	1.87
Total	1,623.93	100.00

Emissions of PM_{10} particulate erating hours of TPP Plomin 2. Total PM_{10} emissions from all pared to 2019 by 51 percent due and from city heating boilers by cent. to the reduced number of op- 20 percent compared to 2019.

matter from HEP's TPPs, EL-TO PM₁₀ emissions from HEP's BE- HEP sources decreased in 2020 and TE-TO were reduced com- TO were reduced by 11 percent, compared to 2019 by 40 per-

PM₁₀ emissions from HEP sources by discharges and operators in 2019 and 2020

OPERATOR	Outlet	PM ₁₀ emissions t/y - 2020	PM ₁₀ emissions t/y - 2019	Index 2020/2019	County
HEP Proizvodnja					
	TPP Plomin 1	0.00	0.07	0.00	Istria County
	TPP Plomin 2	29.67	69.17	0.43	Istria County
Thermal power plants for electricity generation	TPP Rijeka	0.00	0.00	0.00	Primorje- Gorski Kotar County
	CCPP Jertovec	0.08	0.01	10.50	Krapina- Zagorje County
	TE-TO Zagreb	3.10	2.60	1.19	City of Zagreb
Thermal power plants – heating	EL-TO Zagreb	1.05	1.32	0.80	City of Zagreb
plants for electricity and heating energy generation	TE-TO Sisak	1.85	1.17	1.58	Sisak- Moslavina County
	TE-TO Osijek	0.86	1.08	0.79	Osijek- Baranja County
Total thermal power plants and thermal power plants – heating plants		36.62	75.41	0.49	
Bioenergy plants for electricity	BE-TO Sisak	15.31	13.02	1.18	Sisak- Moslavina County
and heating energy generation	BE-TO Osijek	10.05	14.86	0.68	Osijek- Baranja County
Total bioenergy plants		25.36	27.88	0.91	
Total HEP Proizvodnja		61.98	103.29	0.60	

OPERATOR	Outlet	PM ₁₀ emissions t/y - 2020	PM ₁₀ emissions t/y - 2019	Index 2020/2019	County
HEP Toplinarstvo					
	Bregana – 2 boilers	0.00	0.00	0.00	Zagreb County
	Samobor - 2 boilers	0.00	0.00	0.00	Zagreb County
	Velika Gorica - 12 boilers	0.13	0.16	0.80	Zagreb County
City heating boilers	Zaprešić - 7 boilers	0.00	0.00	0.00	Zagreb County
	Zagreb - 19 boilers	0.00	0.00	0.00	Zagreb County
	Osijek - 1 boiler	0.00	0.00	0.00	Osijek- Baranja County
Total city heating boilers		0.13	0.16	0.80	
Total HEP Toplinarstvo		0.13	0.16	0.80	
Total HEP Group		62.11	103.45	0.60	

PM₁₀ emissions from HEP sources by counties in 2020

COUNTY	PM ₁₀ emissions t/y - 2020	Share of PM ₁₀ emissions from HEP sources by counties 2020%
City of Zagreb	4.15	6.67
Krapina-Zagorje County	0.08	0.13
Istria County	29.67	47.65
Osijek-Baranja County	10.91	17.52
Primorje-Gorski Kotar County	0.00	0.00
Sisak-Moslavina County	17.16	27.56
Zagreb County	0.13	0.21
Total	62.26	100.00

monoxide CO emissions from for city heating by 50 percent 8.40 percent in 2020. HEP's TPPs, TE-TO and EL-TO compared to 2019, but the share increased by 3 percent com- of CO emissions from BE-TO in

Total CO emissions from all HEP pared to 2019. CO emissions the total HEP emissions was sources increased by 6 per- from BE-TO increased by 11 7.02 percent, and the share from cent compared to 2019. Carbon percent, and from boiler rooms boiler rooms for heating cities

CO emissions from HEP sources by discharges and operators in 2019 and 2020

OPERATOR	Outlet	CO emissions t/y - 2020	CO emissions t/y - 2019	Index 2020/2019	County
HEP Proizvodnja					
Thermal power plants for electricity generation	TPP Plomin 1	0.00	0.00	0.00	Istria County
	TPP Plomin 2	62.24	82.98	0.75	Istria County
	TPP Rijeka	0.00	0.00	0.00	Primorje- Gorski Kotar County
	CCPP Jertovec	1.63	0.14	11.33	Krapina- Zagorje County
Thermal power plants – heating plants for electricity and heating energy generation	TE-TO Zagreb	70.96	57.03	1.24	City of Zagreb
	EL-TO Zagreb	29.54	25.84	1.14	City of Zagreb
	TE-TO Sisak	24.23	16.80	1.44	Sisak- Moslavina County
	TE-TO Osijek	2.01	1.87	1.08	Osijek- Baranja County
Total thermal power plants and thermal power plants – heating plants		190.62	184.66	1.03	
Bioenergy plants for electricity and heating energy generation	BE-TO Sisak	14.84	12.88	115.20	Sisak- Moslavina County
	BE-TO Osijek	1.00	1.48	67.70	Osijek- Baranja County
Total bioenergy plants		15.84	14.36	1.10	
Total HEP Proizvodnja		206.46	199.02	1.04	

OPERATOR	Outlet	CO emissions t/y - 2020	CO emissions t/y - 2019	Index 2020/2019	County
HEP Toplinarstvo		4, 222	4, 200		
City heating boilers	Bregana – 2 boilers	0.12	0.04	100.00	Zagreb County
	Samobor - 2 boilers	1.91	0.76	100.00	Zagreb County
	Velika Gorica - 12 boilers	8.26	3.40	242.67	Zagreb County
	Zaprešić - 7 boilers	2.44	1.66	147.29	Zagreb County
	Zagreb - 19 boilers	5.69	6.28	90.51	City of Zagreb
	Osijek - 1 boiler	0.52	0.51	101.64	Osijek- Baranja County
Total city heating boilers		18.94	12.66	1.50	
Total HEP Toplinarstvo		18.94	12.66	1.50	
Total HEP Group		225.40	211.68	1.06	

CO emissions from HEP sources by counties in 2020

COUNTY	CO emissions t/y - 2020	Share of CO emissions from HEP sources by counties 2020%
City of Zagreb	106.19	47.11
Krapina-Zagorje County	1.63	0.72
Istria County	62.24	27.61
Osijek-Baranja County	3.53	1.57
Primorje-Gorski Kotar County	0.00	0.00
Sisak-Moslavina County	39.08	17.34
Zagreb County	12.73	5.65
Total	225.40	100,00

Air quality in the vicinity of EL-TO Zagreb and TPP Plomin immissions

The EL-TO Zagreb plant has an automatic measuring station for monitoring air quality station and in 2020 there were no overruns in the parameters related to air quality.

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The Public Health Institute of the County of Istria is responsible for supervising the operation of immission stations and preparing an annual report on air quality monitoring in the area of the Plomin TPP network. Air

quality is measured at four stations near TPP Plomin - Ripenda, Plomin grad, Klavar and Sv. in Vrhovec. Measurements are Katarina. The air quality in the continuously carried out at the area of that measuring network, based on the measurement results in 2020, was assessed as of the first category - clean or slightly polluted air. During 2020, the limit values for sulfur dioxide. nitrogen oxides and particulate matter (PM₁₀) were not exceed-

> In the analyzed period, the lower and upper assessment thresh-

olds for sulfur dioxide and particulate matter related to human protection and long-term targets for ground-level ozone with regard to human health and vegetation protection were exceeded. Therefore, it is necessary to continue monitoring pollutant levels in the measuring network of TPP Plomin. The assessment for individual parameters is conditional and based on long-term monitoring, and not only on the measurement results in 2020.

Pollution prevention and control projects and activities

Construction of combi-cogeneration power plant (CCPP) EL-TO Zagreb. The new combi-cogeneration high-efficiency unit CCPP EL-TO Zagreb on natural gas (150 MWe, 114 MWt), will replace two generation units at the existing location. The aim of the construction is to ensure a longterm supply of thermal energy for more than 80 thousand inhabitants of western and northern Zagreb and the supply of steam to industrial consumers. With more power, CCPP EL-TO Zagreb will enable more flexible operation of existing units and their longer stay in operation, or higher gen-

eration on site with less impact on the environment because with the application of modern energy solutions will reduce carbon dioxide emissions by about 150,000 tons per year. Also, the CCPP EL-TO Zagreb project with a total efficiency of 90 percent and primary energy savings of more than 25 percent in the combined process of electricity and heat generation, is certainly justified in terms of reducing the impact on climate change, which was confirmed by the EBRD, that gave the highest grade from an environmental point of view.

The realization of this project is on the trail of harmonizing the work of generation units with the **Directive on Industrial Emissions** and meeting the emission limit values prescribed by the environmental permit.

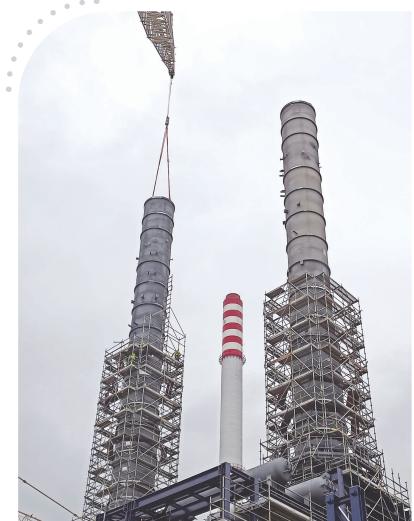
Reconstruction of hot water boilers in EL-TO Zagreb. With the reconstruction of VK3, NO emissions were reduced to below 70 mg / m³, and from VK4 to below 80 mg / m³, which enabled their further work according to the Industrial Emissions Directive (IED a). Boiler reconstruction work began and ended during 2020. As part of the reconstruction of the combustion system of hot water boilers VK5 and VK6 at the beginning of 2020, the replacement of the pipe-pressure system and burner system of boilers with burners was completed and flue gas recirculation was carried out, thus reducing NO emissions below 100 mg / m³, in accordance with the environmental solution. permits. Investments in the reconstruction of VK5 and VK6 enabled the operation of boilers until the planned decommissioning in 2029.

Reconstruction of boiler block C in TE-TO Zagreb in order to reduce emissions of nitrogen oxides NO.. In order to reduce emissions of nitrogen oxides (NO_{...}) to 100 mg / m³, a preliminary and main project for the reconstruction of the combustion system with burner replacement and reconstruction of the burner control system of the steam boiler of block C was prepared.

> The EL-TO Zagreb CCPP project with the efficiency factor of 90% and primary energy savings of more than 25% in the connection process will contribute to reducing the impact on climate changes

Activities in TPP Plomin 2. In or- The DENOX plant was built and der to further reduce emissions of particulate matter into the ensured that the NO emission environment from flue gases in limit values were met, in ac-TPP Plomin 2, during September 2020 an inspection of the existing electrostatic precipitator was performed, after which an analysis of technical possibilities of steam consumption and energy reconstructing electrostatic precipitators into a hybrid filter was initiated. Based on the results of the analysis, the process of replacing the electrostatic precipitator will be initiated.

put into operation in 2017, which cordance with the decision on the environmental permit. Further upgrading of the DENOX plant will result in lower exhaust savings, as well as less catalyst erosion, which will extend its service life. These modifications will also increase the reliability of TPP Plomin 2 in terms of meeting ELVs as well as safety from unplanned downtime.



Goal 4 Sustainable use and protection of water and sea







The Croatian electricity system is largely dependent on the generation of electricity from hydropower plants. The energy produced by HEP Proizvodnja in hydropower plants comes from renewable sources, regardless of the power of the hydropower plant, except for part of the electricity from reversible HPPs that is used to pump water to a higher level. Therefore, energy produced in hydropower plants, which is consumed in Croatia, significantly contributes to achieving the goals of the Republic of Croatia for the share of energy from renewable sources in the final national gross consumption.

Many existing reservoirs used by HEP are not only in the funcalso in the function of flood pro-surface water status". Ecolog-

tection, namely safe conduction of water waves. Furthermore, some systems that supply water to the turbines of individual hydropower plants (HPP Zakučac. HPP Senj, HPP Dubrovnik and HPP Kraljevec) capture water for the water supply systems of the population. Most of the hydropower plants in HEP's generation portfolio are located within the ecological network area (engine room, reservoir or water supply system to the engine room), which is under the jurisdiction of MESD, also authorized for nature protection issues.

River basin management. The objective of the Water Framework Directive, related to surtion of electricity generation, but face water, is to achieve "good

ical status is an expression of the quality of the structure and functioning of aquatic ecosystems related to surface waters, and in Croatia the procedure for determining the status of waters is defined by the Decree on Water Quality Standards. This Regulation also refers to artificial water bodies and significantly changed water bodies, which is important both for the operation of existing and for the planning of new hydropower plants, since with, for artificial and / or significantly changed water bodies instead of the goal of achieving "good status" set a less demanding goal or "good environmental potential". Regular tests of physicochemical, biological and at certain locations ichthyological indicators

are carried out on the accumulations of hydropower systems of PA HPP North, PA HPP West

and PA HPP South.

The Water Framework Directive leaves member states room for conservation and development of hydropower facilities. The planning document which determines the status of waters and plans measures to achieve the objectives of water protection, including the objectives relating to artificial water bodies and significantly changed water bodies is the River Basin Management Plan adopted by each member state separately. Water area management plans are prepared by Hrvatske vode and adopted by the Government of the Republic of Croatia. The development of a plan for the years 2022-2027 is in progress.

Cooperation with Croatian Water Management Company. HEP Proizvodnja has established a Team for Cooperation with Hrvatske vode related to existing

hydropower and thermal power plants. The team cooperates with Hrvatske vode in the im- and significantly changed waplementation of the following ter bodies and the development activities of common interest: protection from harmful effects management of water areas and of water, use of water and space, the determination of the status determination of public water lines for surface water bodies in order to resolve property relations, development of a nation-

al system of classification of ecological potential for artificial of planning documents for the of water bodies.

Water for the population water supply is taken from the systems that supply water to the turbines of individual hydropower plants



use in HFP Water and

HEP uses water as an energy source for the generation of electricity from hydropower plants. The quantities of water that hydropower plants can use to produce electricity are prescribed by concessions for the use of hydropower. It also uses technological water in the process of generation of electricity and heat

in TPP, TE-TO, EL-TO and BE-TO, in TPP Plomin and TPP Rijeka. Water is also used in the processes of thermal energy generation from boiler rooms for heating cities, electricity distribution and in offices and restaurants.

The indicators we have chosen for monitoring the sustainabili-

ty of use and protection of wabut also the sea for cooling water ter and sea are the amount of abstracted water, the amount of discharged water and monitoring the quality of discharged wastewater based on prescribed emission limit values for pollutants into water prescribed by water permits.

Risks: sustainable use and protection of water and marine resources

relate to changing weath- isting hydropower plants. Since ply and meeting the goal of iner conditions and the amount most of them are located in creasing the share of renewable of water available that will be protected areas, the procedures sources in generation, portfolio. available for energy generation for assessing the impact of the in the coming years. In order to project on the environment and by ensuring a diverse product increase the share of renew- the ecological network are often able energy sources in HEP's lengthy, which delays the acqui-

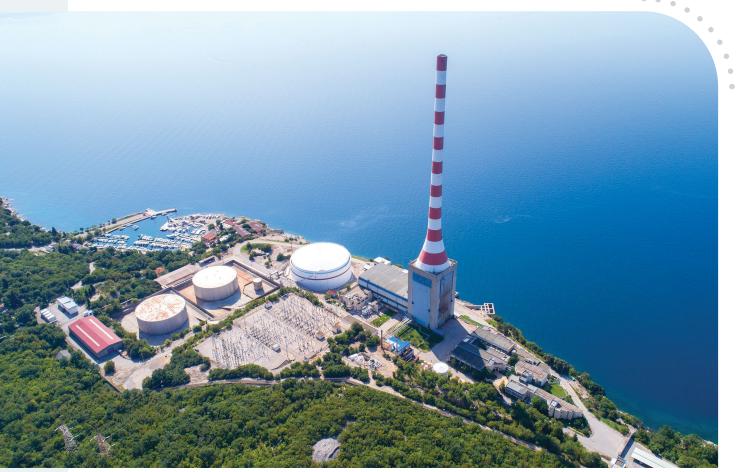
The risks we have identified build new and reconstruct ex- and thus security of energy supgeneration portfolio, we plan to sition of the necessary permits,

We strive to manage these risks portfolio in line with best available techniques.

Goals: sustainable use and protection of water and marine resources

we will treat water rationally and water permits. in accordance with the condi-

In the coming period, as before, tions listed in concessions and



TPP Plomin and TPP Rijeka have obtained concessions on the maritime domain for the purpose of economic use and special use of the sea

Water use in the process of energy generation in TPPs, TE-TO, EL-TO and BE-TO

water from surface, groundwater water supply systems for energy generation. All HEP's thermal power plants have valid water

HEP's thermal power plants use and during 2020 water permits lations have been successfully for water use were obtained for completed. TPP Plomin and TPP and wells, as well as from public TE-TO Zagreb and CCPP Jer- Rijeka have obtained concestovec. Thus, all procedures for sions on the maritime domain issuing water permits for water for the purpose of economic use abstraction for all thermal power and special use of the sea. permits for water abstraction, plants and all property-legal re-

Use of water for the generation of thermal energy from boiler rooms for heating cities and electricity distribution

Boilers for heating cities that supply systems, for which a wa- public water supply systems is use water from public water bution in HEP ODS, water from mits.

produce thermal energy, whose ter use permit is not required. In used, which also does not reoperator is HEP Toplinarstvo, the process of electricity distri- quire obtaining water use per-

Wastewater discharge from TPPs, TE-TO, EL-TO and BE-TO

itation and sanitary wastewa-

Technological, cooling, precip- are an integral part of the deci- amount of electricity produced. sion on environmental permits. HPP Vinodol and HPP Senj have ter are discharged from HEP's Hydropower plants, except for a water permit for the discharge TPPs, TE-TO, EL-TO and BE-TO. HPP Vinodol and HPP Senj, are of sanitary wastewater. During Wastewater is treated before not subject to the Ordinance 2020, there were no exceedancdischarge into the receiver, and on limit values for wastewater es of the permitted limit values the plants have water permits emissions, but the quantities of pollutant emissions into wafor wastewater discharge, which of water used are shown as the ter prescribed by water permits.

Affected water and water intakes and types, quantities and discharges of wastewater from thermal power plants and thermal power plants-heating plants of HEP Proizvodnja in 2020

PLANT	Source	Quantity of water (m³)	Waste water	Treatment system	Discharge	Quantity of water (m³)
TPP	Bubić Burrow	484,295	technological waters	Treatment of waste waters neutralization and depositing device (Desulfurization and Boiler)	Čepić Canal	49,398
Plomin				neutralization	- sea	12,107
	Public water supply system	10,394	sanitary waters	BIO device w/o treatment		10,394
	Sea (cooling waters)	200,649,191	cooling waters	no treatment		190,158,514
	Public water		technological waters	treatment of waste waters, neutralization		0
TPP	supply system	19,732	oily waters	oil separation	Sea	17,289
Rijeka			sanitary waters	BIO device	Sea	553
	Sea (cooling waters)	0	cooling waters	no treatment		0
	Sava River	224,856	technological waters	treatment of waste waters, neutralization		11,452
TE-TO			oily waters	oil separation	Sava River	0
Sisak	Public water supply system	3,597	sanitary waters	no treatment	Sava nivei	3,597
	Sava River (cooling waters)	77,620,860	cooling waters	no treatment		77,620,.860
	Wells	· · · · · ·	technological waters	treatment of waste waters, neutralization	City sewage	606.615
TE-TO			oily waters	oil separation	system	606,615
Zagreb	Public water supply system	2,025	sanitary waters	no treatment		
	Sava River	127,937,000	cooling	no treatment	Sava River	102,349,600
	(cooling waters)	121,301,000	waters	no treatment	Savica Lake	25,587,400

PLANT	Source	Quantity of water (m³)	Waste water	Treatment system	Discharge	Quantity of water (m³)
EL-TO	Wells	868,206	technological waters	treatment of waste waters. neutralization and depositing device	City sewage	99,946
Zagreb			oily waters	oil separation	system	
	Public water supply system	10,752	sanitary waters	no treatment		
	Drava River	202,883	technological waters	neutralization		
			oily waters	oil separation	City sewage system	99,207
TF T0		7010	sanitary waters	no treatment	System	
TE-TO Osijek	TE-TO Osijek Public water supply system		clean rainfall waters and rainfall waters from liquid fuel management system	oil separation	Palčić Canal	10,833
CCPP Jertovec			technological waters	treatment of waste waters, neutralization, depositing device and precipitation	Jertovec Stream	12,086
			oily waters	oil separation		
	Public water supply system	726	sanitary waters	BIO device		
HPP Vinodol	Public water supply system	419	sanitary waters	Imhoff precipitator	Dubračina Stream	419
HPP Senj	Public water supply system	1,066	sanitary waters	BIO device	Sea	1,066

Discharge of wastewater from the process of heat generation from boiler rooms for heating cities

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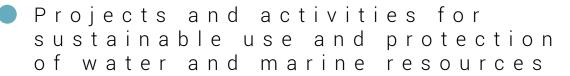
In the process of thermal ener- urban heating boilers. Sanitary mit for the discharge of sanitary gy generation, no technological, wastewater is discharged into wastewater into the public sewpolluted precipitation, cooling the public drainage system. It is erage system. or leachate is generated from not necessary to obtain a per-

Wastewater discharge from the electricity distribution process

workshops, transformer ware- a public drainage system with 2020 was 30,962.16 m³.

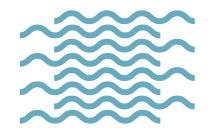
water permits for wastewater of transformer oil, car washes plant. The total annual amount discharge. These are discharge and restaurants. Discharges are of wastewater discharged in the es of technological wastewater usually indirect (except for the process of electricity distribuat the locations of transformer Skrad site), and the receiver is tion in all distribution areas in

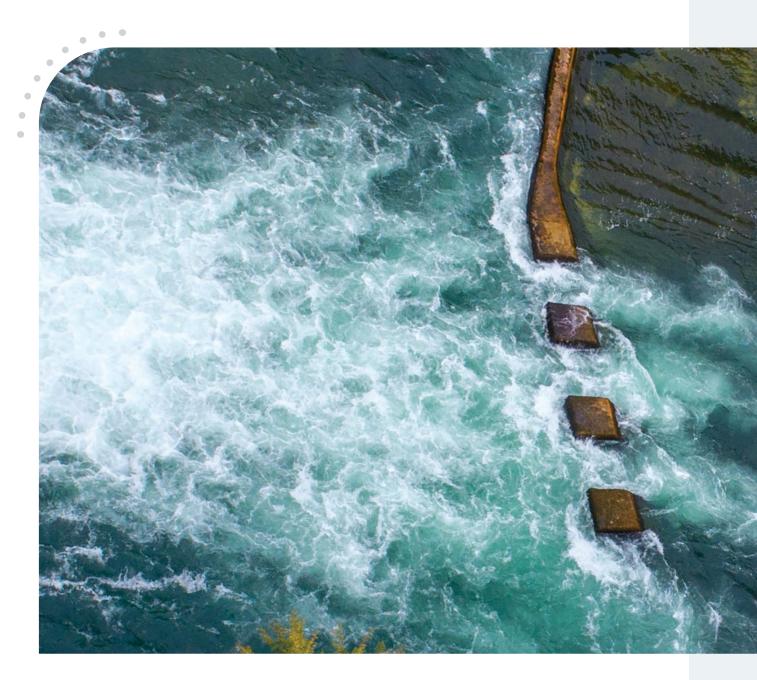
Twelve HEP ODS sites have valid houses with larger quantities a central wastewater treatment



TE-TO Zagreb plant. TE-TO Za- plant was made with a tech- water that is otherwise used in a greb discharges an average nique that enables the removal chemical water treatment plant. of 35-50 t / h of wastewater of metals from wastewater, and During 2020, the development of into the city wastewater treat- thus return the treated water to the conceptual design was comment plant every day through the system of chemical water the main drainage collector. A preparation for the needs of the techno-economic analysis of plant. In this way, in addition to the possibility of wastewater water recovery and reuse in the

Wastewater recovery in the recovery in the TE-TO Zagreb plant, it is possible to save well





Goal 5

Protection and restoration 3 of biodiversity and ecosystems







The European Union's Biodiversity Strategy for 2030 is a comprehensive, ambitious and long-term plan to protect nature and stop ecosystem degrada-

Natural solutions such as biodiversity protection and ecosyscombating the effects of climate change and the efficient use of

natural resources. Croatia is currently second country in the tem restoration are one way of EU in terms of the total area covered by Natura 2000 sites, with a share of 37 percent (Slovenia 38 percent).

> HEP's TPPs, TE-TO, EL-TO and BE-TO and city heating boilers are located within urban or industrial areas and are not within the Natura 2000 ecological network area or protected areas at the national level. However. some protected areas are close to generation facilities, such as the significant Savica landscape near TE-TO Zagreb, and TE-TO Osijek is located near the border of the Mura-Drava Regional Park.

> A large number of HEP's hydropower plants are located in the



Many of HEP's hydropower plants are located in the area of the Natura 2000 ecological network

while some are fully or partially tional parks, nature parks, re- icant landscape. Relationship between HEP Proizvodnja's hydropower plants and ecological networks and protected areas

Natura 2000 ecological network, in protected areas such as na- gional parks and areas of signif-

GENERATION AREA HR 2001307 Drava – accumulations accumulations HR 2001307 Drava – accumulations accumulations HR 2001307 Drava – accumulations accumulations HR 2001307 Drava – accumulations HR 2001307 Drava – accumulations HR 1000013 Drava accumulations HR 2001307 Drava – accumulations HR 1000013 Drava accumulations HR 2001307 Drava – accumulations HR 1000013 Drava accumulations HR 1000013 Drava accumulations HR 1000013 Drava accumulations HR 1000013 Drava accumulations HR 1000014 Upper stream of Drava (from Donja Dubrava to Terezino polje) BR 2001012 Ličko polje HR 2001012 Ličko polje HR 1000021 Lika carst fields HR 1000022 Velebit PRP VINODOL HR 5000022 Nature Park Velebit HR 1000022 Velebit HR 2001303 Lokve - Sunger – Fužine Sunger – Fužine HSS Vinodol / HR 5000019 Gorski Kotar and Northern Lika HRS Vinodol / HR 2001303 Zebar HRS Vinodol / HR 2001303 Zebar HR1000019 Gorski Kotar and Northern Lika HR2001345 Vražji prolaz and Zeleni Vir HR 5000019 Gorski Kotar and Northern Lika HR 5000019 Gorski Kotar and Northern Lika HR 5000019 Gorski Kotar and Northern Lika HR 5000019 Gorski Kotar and Northern Lika HR 5000019 Gorski Kotar and Northern Lika HR 5000019 Gorski Kotar and Northern Lika HR 5000019 Gorski Kotar and Northern Lika HR 5000019 Gorski Kotar and Northern Lika HR 5000019 Gorski Kotar and Northern Lika HR 5000019 Gorski Kotar and Northern Lika HR 5000019 Gorski Kotar and Northern Lika HR 5000019 Gorski Kotar and Northern Lika HR 500019 Gorsk		Conservation areas important for wild species	Conservation areas important for birds	Protected area
MAIN HPP DRAVAHPP VaraždinHR 2001307 Drava – accumulationsHR 1000013 Drava accumulationsRegional Park Mura- Drava accumulationsHPP ČakovecHR 2001307 Drava – 			important for birds	
HPP Varaždin HR 2001307 Drava – accumulations HR 2001307 Drava – accumulations HR 5000014 Upper stream of Drava (from Donja Dubrava to Terezino polje) Brava to Tere	GENERATION AREA	NORTH		
HPP Čakovec HR 2001307 Drava – accumulations accumulations HR 1000013 Drava accumulations accumulations accumulations accumulations accumulations accumulations accumulations accumulations HR 5000014 Upper stream of Drava (from Donja Dubrava to Terezino polje) BENERALI POP MINIONO (MAIN HPP) HSS Senj / HR 2001312 Ličko polje HR 1000022 Velebit PR 5000022 Nature Park Velebit HR 5000019 Gorski Kotar and Northern Lika Alba Virazi prolaz and Zeleni Vir HR 2001303 Debar HR 1000019 Gorski Kotar and Northern Lika and	MAIN HPP DRAVA			
HPP Cakovec accumulations accumulations HRP Dubrava	HPP Varaždin			Regional Park Mura- Drava
accumulations HR 5000014 Upper stream of Drava (from Donja Dubrava to Terezino polje) GENERATION AREA WEST HSS SENJ (MAIN HPP) HSS Senj / HPP Senj	HPP Čakovec			Regional Park Mura- Drava
GENERATION AREA WEST HSS SENJ (MAIN HPP) HSS Senj / HPP Senj	HPP Dubrava			
HSS SENJ (MAIN HPP) HSS Senj / HR 2001012 Ličko polje fields Velebit nature park fields Velebit nature park fields Velebit nature park HR 1000022 Velebit		of Drava (from Donja	of Drava (from Donja	Regional Park Mura- Drava
HSS Senj / HP Senj HR 2001012 Ličko polje fields Velebit nature park HR 1000021 Lika carst fields Velebit nature park HR 5000022 Nature Park Velebit HR 1000022 Velebit	GENERATION AREA	WEST		
HPP Senj HR 2001012 Licko polje fields Velebit nature park HR 5000022 Nature Park Velebit HR 1000022 Velebit - HPP VINODOL (MAIN HPP) HSS Vinodol / CHPP Fužine Sunger – Fužine HR 1000019 Gorski Kotar and Northern Lika and Northern Lika HSS Vinodol / HR 2001042 Lič polje HR2001300 Zebar HR2001345 Vražji prolaz and Zeleni Vir HR 5000019 Gorski Kotar and Northern Lika and Northern Lika hra 5000019 Gorski Kotar	HSS SENJ (MAIN H	PP)		
HPP Sklope Velebit HR 1000022 Velebit - HPP VINODOL (MAIN HPP) HSS Vinodol / CHPP Fužine Sunger – Fužine HR 1000019 Gorski Kotar and Northern Lika HS 5000019 Gorski Kotar and Northern Lika HS Vinodol / HR 2001042 Lič polje HR2001300 Zebar HR1000019 Gorski Kotar and Northern Lika HR2001345 Vražji prolaz and Zeleni Vir HR 5000019 Gorski Kotar and Northern Lika HR1000019 Gorski Kotar and Northern Lika HR1000019 Gorski Kotar and Northern Lika Significant landscape Vražji prolaz and Zeleni Vir HR 5000019 Gorski Kotar and Northern Lika HR2001345 Vražji prolaz and Northern Lika HR2001345 Vražji prolaz and Northern Lika Significant landscape Vražji prolaz and Northern Lika HR2000592 Gorski Kotar and Northern Lika HR2001345 Vražji Prolaz and Zeleni Vir PRIJEKA HR2001345 Vražji Prolaz and Zeleni Vir PRIJEKA HR2000592 Ogulin – Plaški area	,	HR 2001012 Ličko polje		Velebit nature park
HSS Vinodol / CHPP Fužine Sunger – Fužine HSS Vinodol / HR 5000019 Gorski Kotar and Northern Lika HSS Vinodol / HR 2001042 Lič polje HR2001300 Zebar HPP Vinodol HR2001345 Vražji prolaz and Zeleni Vir HR 5000019 Gorski Kotar and Northern Lika HSS Vinodol / HR2001345 Vražji prolaz and Zeleni Vir HR 5000019 Gorski Kotar and Northern Lika HPP RIJEKA HPP Rijeka HR 2000658 Rječina			HR 1000022 Velebit	-
CHPP Fužine Sunger – Fužine HSS Vinodol / RHPP Lepenica HR 5000019 Gorski Kotar and Northern Lika HSS Vinodol / HPP Vinodol HR 2001042 Lič polje HR2001300 Zebar HR2001345 Vražji prolaz and Zeleni Vir HR 5000019 Gorski Kotar and Northern Lika HR1000019 Gorski Kotar and Northern Lika HR1000019 Gorski Kotar and Northern Lika Significant landscape Vražji prolaz and Zeleni Vir HR 5000019 Gorski Kotar and Northern Lika HPP RIJEKA HPP Rijeka HR 2000658 Rječina - HR 2000592 Ogulin – Plaški area Plaški area	HPP VINODOL (MAI	N HPP)		
RHPP Lepenica and Northern Lika and Northern Lika HSS Vinodol / HPP Vinodol HR2001300 Zebar HR2001345 Vražji prolaz and Zeleni Vir HR 5000019 Gorski Kotar and Northern Lika and Northern Lika Significant landscape Vražji prolaz and Zeleni Vir HR 5000019 Gorski Kotar and Northern Lika prolaz and Zeleni Vir HPP RIJEKA HPP RIJEKA HPP Gojak HR 2000592 Ogulin – Plaški area HR 2000592 Ogulin – Plaški area HR 2000592 Ogulin – Plaški area				-
HPP Vinodol HR2001300 Zebar HR2001345 Vražji prolaz and Zeleni Vir HR 5000019 Gorski Kotar and Northern Lika Significant landscape Vražji prolaz and Zeleni Vir HR 5000019 Gorski Kotar and Northern Lika Prolaz and Zeleni Vir HPP RIJEKA HPP Rijeka HR 2000658 Rječina				-
HPP Zeleni Vir HR 5000019 Gorski Kotar and Northern Lika HPP RIJEKA HPP Rijeka HR 2000658 Rječina HR 2000592 Ogulin – Plaški area HR 2000590 Zebal HR 1000019 Gorski Kotar and Northern Lika Significant landscape Vražji prolaz and Zeleni Vir Prolaz and Zeleni Vir Significant landscape Vražji prolaz and Zeleni Vir Prolaz and Zeleni Vir Significant landscape Vražji prolaz and Zeleni Vir Prolaz and Zeleni Vir Significant landscape Vražji prolaz and Zeleni Vir Prolaz and Zeleni Vir	HSS Vinodol /	HR 2001042 Lič polje		
HPP Zeleni Vir HR 5000019 Gorski Kotar and Northern Lika HPP RIJEKA HPP Rijeka HR 2000658 Rječina HR 2000592 Ogulin – Plaški area HR 2000592 Ogulin – Plaški area	HPP Vinodol	HR2001300 Zebar		-
HPP RIJEKA HPP Rijeka HR 2000658 Rječina	UDD 7 L 'V'		HR1000019 Gorski Kotar	Significant landscape Vražji
HPP Rijeka HR 2000658 Rječina	HPP Zeieni Vir		and Northern Lika	
MAIN HPP GOJAK HPP Gojak HR 2000592 Ogulin	HPP RIJEKA			
HPP Gojak HR 2000592 Ogulin – Plaški area	HPP Rijeka	HR 2000658 Rječina	-	-
Plaški area	MAIN HPP GOJAK			
HPP Ozalj HR 2000642 Kupa	HPP Gojak	9	-	-
	HPP Ozalj	HR 2000642 Kupa	-	-

	Conservation areas important for wild species and habitats	Conservation areas important for birds	Protected area
HPP Lešće	HR 2000592 Ogulin – Plaški area	-	-
GENERATION AREA	SOUTH		
RHPP VELEBIT			
RHPP VELEBIT	HR 2001267 Ričica HR 2001268 Otuča HR 2001269 Obsenica HR 5000022 Velebit nature park HR 2000641 Zrmanja	HR 1000021 Lika carst fields HR 1000022 Velebit	Velebit nature park
MAIN HPP MILJACK	(A		
HPP Golubić	-	-	-
HPP Miljacka	HR 2000918 Wider NP Krka area	HR 1000026 Krka and surrounding plateau	Significant landscape Krka – upper stream National Park Krka
mHPP Krčić	HR 2000917 Krčić		Significant landscape Krka – upper stream Significant landscape – Krčić
HPP Jaruga	HR 2000918 Wider NP Krka area HR 3000171 Confluence of Krka	HR 1000026 Krka and surrounding plateau	Significant landscape Krka – upper stream Significant landscape Krka – lower stream National Park Krka
MAIN HPP ORLOVA	C		
HPP Orlovac	HR 5000028 Dinara HR 2000936 Ruda	HR 1000028 Dinara	-
PS Buško blato	-	-	-
HPP Peruća	-	HR 1000029 Cetina	-
HPP Đale	HR 2000929 Cetina river - canyon	HR 1000029 Cetina	-
mHPP Pranjčevići	HR 2000929 Cetina river - canyon	HR 1000029 Cetina	-
MAIN HPP ZAKUČA	С		
HPP Zakučac	HR 2000929 Cetina river - canyon HR 2001352 Mosor	HR 1000029 Cetina HR 1000027 Mosor, Kozjak and Trogir Hinterland	Significant landscape Cetina river canyon
HPP Kraljevac	HR 2000929 Cetina river - canyon	HR 1000029 Cetina	Significant landscape Cetina river canyon

	Conservation areas important for wild species and habitats	Conservation areas important for birds	Protected area
HPP DUBROVNIK			
HPP Dubrovnik	-	-	-
HPP Zavrelje	-	-	-

and ecosystems are determining the position of HEP's plants in relation to protected habitats and large biodiversity outside

for monitoring the protection the effectiveness of measures acteristics are carried out on the and restoration of biodiversity we implement and determine accumulations of hydropower protected species listed in the systems of PA HPP North, PA IUCN Red List and the effective- HPP West and PA HPP South. ness of the implementation of The results of testing these inspecies conservation measures. dicators are also an indicator of protected areas, monitoring the Regular tests of physicochem- the impact of our business on impact of HEP's operations on ical, biological and at certain biodiversity.

The indicators we have chosen these habitats and monitoring locations ichthyological char-

Risks: protection and restoration of biodiversity and ecosystems

late to HEP's impact on protected species and habitats, which we manage by monitoring the quality of water discharged into watercourses, working in accordance with assigned conditions in concessions and water permits, sustainable waste management and meeting the

The risks we have identified re- requirements of environmental ed in the ecological network and permits.

> We also harmonize the operation of our plants with the best available techniques and apply modern solutions on our infrastructure for the protection of species and habitats. Since a large part of our plants are locat

protected areas, the procedures for the impact on the ecological network and the environment are carried out, the duration of the procedures affects obtaining the necessary permits for construction and reconstruction of existing plants over which we have no influence.

Goals: protection and restoration of biodiversity and ecosystems

In the next period, we will con- near HEP's plants or that HEP's and habitats that are located

tinue to protect the species plants have an impact on them.

HEP's distribution network in protected areas

Within the Natura 2000 conser- medium voltage power distri- are being implemented for parts there are slightly more than isolated and do not pose a threat

5,000 kilometers of overhead to birds. Projects and measures

vation area important for birds, bution lines, some of which are of the distribution network that pose a risk of bird death.

According to the Ordinance on conservation objectives and conservation measures for target bird species in the areas of the ecological network, conservation measures in the field of energy include the following strictly protected bird species endangered by electrocution. These are: golden eagle (Aguila chrysaetos), buzzard (Bubo bubo), white stork (Ciconia cicionia), short-toed snake eagle (Circaetus gallicus), marsh harrier (Circus aeruginosus), hen harrier (Circus cyaneus),

meadow harrier (Circus pygargus), merlin (Falco columbarius), lesser kestrel (Falco naumanni), peregrine falcon (Falco peregrinus), red-footed falcon (Falco vespertinus), crane (Grus), griffon vulture (Gyps fulvus), whitetailed eagle (Haliaeetus albicilla), black hawk (Milvus migrans), roaring pandion (Haliaetus), European honey buzzard (Pernis apivorus), bald eagle (Aguila clanga), click eagle (Aguila pomarina), black stork (Ciconia nigra). Ural owl (Strix uralensis).

Therefore, we plan and build the electricity infrastructure in the area of the Natura 2000 ecological network in such a way as to prevent collisions of birds on high-voltage transmission lines and electrocutions of birds on medium-voltage transmission lines. We plan and implement technical measures to reduce the risk on the sections of the existing transmission lines where the increased risk of bird death is confirmed on the basis of monitoring.

Projects and measures for the protection and restoration of biodiversity and ecosystems

HEP recognizes the impacts of are implementing have proven

its business on biodiversity and to be effective, and plant and anecosystems. The measures we imal species live in coexistence

with HEP's plants and infrastructure. There is always room for improvement, so we are constantly reviewing existing measures and looking for new and more effective solutions.

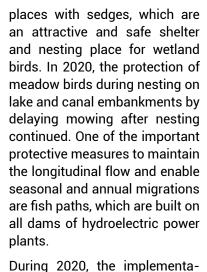
Biodiversity protection at Drava hydropower plants. In the area of Drava hydroelectric power plants (HPP Varaždin, HPP Dubrava and HPP Čakovec) there is a large number of plant and animal species, some of which are protected.

The reservoirs are also a wintering ground for Central and Northern European birds. The initial parts of the reservoirs, which cover the old Drava riverbed, contain reefs overgrown in



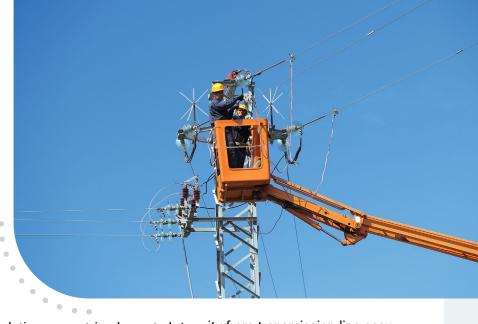
Reservoirs of the Drava hydroelectric power plants are a wintering ground for Central and Northern European birds

The plan is to eliminate the threat of electrocution for birds on Cres and other Kvarner islands by the end of 2025



tion of measures for plant species growing along the Drava hydropower plants continued. A strictly protected and critically endangered species of German tamarisk (Myricaria germanica (L.) Desv.) grows next to the left drainage ditch of HPP Dubrava and is on the Red List of Croatian vascular flora. The meadow along the slope of the drainage ditch of the HPP Čakovec is a habitat of the helmet cajun (Orchis militaris) and the early spider-orchid (Ophrys sphegodes), which belong to the risk plant species and are also on the Red

Invasive species on Drava hydroelectric power plants. In the system of Drava hydropower plants, invasive, i.e. alien species have been identified that do not have natural enemies in the habitats they have inhabited and can therefore affect the reduction of biological diversity if measures to control the pop- the EU. By reducing bird mortal-



ulation are not implemented. In 2020, activities to remove invasive species - zebra mussel (Dreissena polymorpha Pallas) and underwater (submerged) plants of the genera Myriophyllum and Elodea - continued.

International bird conservation project along the Danube - LIFE Danube Free Sky. After successfully applying for the international tender, at the end of 2020 HEP ODS signed an Agreement on participation in the international project LIFE Danube Free Sky, which is funded by the European Union. The Transnational Bird Conservation along the Danube River project will contribute to the strategic goal of conserving biodiversity within

ity from transmission line casualties within a total of 22 Natura 2000 bird-conservation areas, a safer bird migration route along the Danube will be achieved and the survival rate of 19 priority species will be increased.

During the planned five years of implementation, 15 partners will work together to implement the most effective solutions to prevent threats to birds. After this period, the application of protective measures will increase the visibility of conductors on more than 245 km of sections of the highest priority transmission line and adjust more than 3,200 most dangerous transmission line poles.

The activities of HEP ODS are related to the reduction of electro-

cution and collision of birds on the lines in Elektroslavonija Osijek within the Kopački rit Nature Park. In addition to the already well-known measures to protect birds from electric shock (installation of insulation equipment), the project will for the first time install mechanical devices (optical diverters) on the HEP ODS network that will distract birds to avoid collisions with lines. Reconstruction of about 30 kilometers of existing bare lines using an insulated conductor is also envisaged. The total value of the project awarded to HEP ODS is EUR 613,256. The EU funds 75 percent of the total eligible costs of this project.

Protection of griffon vulture (Gyps fulvus Hablizl) on Cres. In accordance with the results of the study, the action plan for the protection of griffon vultures and the continuation of regular monitoring of bird deaths on the island of Cres by the Public Institution "Nature", the priority for the implementation of measures to protect birds from electrocution in 2020 was the island of Cres, the habitat of strictly protected griffon vulture, unique in

At the initiative of this public institution and with the consent of the competent ministry, a plan for the implementation of measures to protect birds from electrocution on the island of Cres and the Kvarner Islands was made, according to which the threat of electrocution would be completely eliminated by the end of 2025. At the end of 2020, a public procurement procedure was launched for protective equipment to prevent electrocution.

Protection of white storks (Ciconia L.). HEP ODS continuously carries out activities for the protection of white storks that nest on the poles of the distribution network at a time when storks are not in their nests. Activities are carried out according to the agreement on cooperation in the implementation of measures for protection, population monitoring and ringing of strictly protected species of white stork (Ciconia L.) between HEP ODS, MESD and 14 public institutions for protected areas where storks

White stork protection activities include repair or replacement of nest carriers, relocation of nests to a safe location, removal of inactive stork nests, and installation of isolation equipment to protect birds from electrocution within the 14 distribution areas covered by the agreement. During 2020, a total of 197 activities were carried out, among which Elektra Križ stands out with as many as 64 activities. As in previous years, in cooperation with local public institutions for nature protection, HEP ODS employees provided professional and technical assistance in the implementation of ringing of young storks in the area of Lonisko polje and Zagreb County.

Cooperation between HEP ODS and the BIOM Association on bird protection

During 2020, the activities from with the BIOM Association conthe Agreement on Cooperation tinued. The cooperation agreein the Protection of Birds from ment includes professional sup-Damage to Risky Elements of the Overhead Electricity Distri- deaths, development and imple-

port in collecting data on bird bution Network signed in 2016 mentation of technical solutions

for the effective implementation of protection measures, regular communication with the aim of exchanging information and joint informing the public about the implemented activities.

Goal 6

Waste management and transition to a circular economy









In 2020, the European Commission adopted a new action plan for the circular economy, which is one of the backbones of the European Green Deal, i.e. the **European Strategy for Sustaina**ble Growth.

In the circular economy, the emphasis is on avoiding waste, reusing items for the same purpose for which they were produced, and when waste is generated, it is necessary to avoid disposal and give priority to material recovery (recycling) and energy recovery of waste. HEP's product consists of electricity and heat, for the generation and distribution of which energy sources, materials and products are used.

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Waste generated at HEP is separated at the place of origin according to the type and properties and is managed in accordance with the order of priority of waste management. All waste is handed over, in accordance with legal regulations, to companies that have a waste management permit or are entered in the appropriate register. In addition to the waste, an ac-

applicable, an analysis of the submitted waste shall be subfrom which waste is generated mitted to the authorized companies. After handing over the waste, the responsibility for the producer ceases and the responsibility passes to the authorized company. Depending on the type of waste and the existing management system in Croatia, waste is handed over for further preparation, recovery, disposal and export. Since Croatia does not have a hazardous waste landfill, and capacities for energy recovery are limited and it is thermally possible to recompanying sheet and, where cover only some types of waste that are not generated in HEP, hazardous waste is exported. Until the arrival of authorized companies, waste is temporarily stored, for a maximum of one year, in warehouses that are arranged in accordance with the provisions of the Ordinance on waste management. In this way, efficient waste management is ensured. This is supported by the fact that during 2020, no irregularities were identified during inspections carried out by the State Inspectorate of the Republic of Croatia.

HEP's only landfill is located in Plomin. It disposes exclusively of its own non-hazardous industrial waste generated at TPP Plomin (slag, sludge from industrial wastewater treatment, fly ash from coal combustion

and gypsum), when companies in the environment that have a permit for waste recovery cannot take over the waste. The landfill for non-hazardous waste in Plomin has a permit for waste management.

For all waste generated in the HEP Group, data on the generation and flow of waste are kept in HEP's electronic database IN-FOZOK (Environmental Information System). INFOZOK is also connected to an electronic database maintained by the Ministry of Economy and Sustainable Development e-ONTO. The obligor of filling in the e-ONTO in HEP is TPP Plomin. Waste data are also entered each year by 31 March of the current year for the previous calendar year in the electronic database Register of Environ-

mental Pollution (ROO) maintained by the authorized ministry.

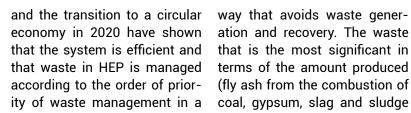
Waste management in HEP

is an integral part of certified environmental management systems according to the ISO 14001: 2015 standard. Internal regulations list procedures for waste management based on which quantities are monitored. the waste management system is managed, and measures are planned to reduce waste, increase waste recovery, reduce landfilled waste and avoid environmental impact.

The indicators we have chosen for monitoring the efficiency of the waste management system and the transition to a circular economy are: hazardous and non-hazardous waste produced and the amount of recovered and disposed waste.

Risks: efficiency of waste management and transition to a circular economy

The risks associated with waste management efficiency and the transition to a circular economy are not significant. This is supported by the fact that in 2020, as in previous years, no irregularities were identified in the waste management system in HEP during the implementation of inspections under the jurisdiction of the State Inspectorate of the Republic of Croatia. Indicators for monitoring the efficiency of waste management



way that avoids waste generation and recovery. The waste that is the most significant in terms of the amount produced (fly ash from the combustion of

from the treatment of industrial wastewater) is managed in accordance with the objectives of the circular economy.

Goals: efficiency of waste management and transition to a circular economy

In order to maintain and improve erated and disposed waste, we monitoring and applying new

the existing waste management will continue to maintain and technologies and innovative system, avoid waste generation monitor existing infrastructure solutions in waste manageand reduce the amount of gen- and its improvement, as well as ment.

Produced hazardous and nonhazardous waste

During 2020, HEP produced a total of 1,471.00 tons of hazardous waste, i.e. 2.43 percent, and 59,046.79 tons of non-hazardous waste, i.e. 97.57 percent. Compared to 2019, the amount of hazardous waste produced decreased by 52.64 percent, and non-hazardous by 27.10 percent.

The amount of hazardous waste produced in 2020 returned to the level of 2018, and the increase in hazardous waste generation in 2019 was caused by the cleaning of fuel oil tanks in thermal power plants and thermal power plants. There will be no such quantities in the future, because in TPPs. TPP-HPs and PP-HPs fuel oil is no longer used for energy generation, only gas and gas oil.

waste in 2020 comprises: met-

waste produced in HEP; equipsubstances 324.50 i.e. 22.06%; oil from the separator and oily water from the oil / water separator 302.00 tons, i.e. 20.53%; waste oils (non-chlorinated hydraulic oils, motor, machine and lubricating oils, non-chlorinated insulating oils and transmission oils heat and other oils) 203.14 tons, i.e. 13.81%, and construction waste containing hazardous substances 91.57 tons, i.e. 6.23%. The rest consists of waste electrical and electronic equipment that contains hazardous substances (computers, laptops, mobile phones, etc.), absorbents, filter materials, etc.

The largest share of hazardous The increase in the amount of non-hazardous waste during al waste containing hazardous 2019 was mainly related to con-

substances 384.60 tons, i.e. struction waste, and was caused 26.15% of the total hazardous by planned overhauls and revitalizations in HEP's plants and ment containing hazardous remediation. The amount of non-hazardous waste in 2020 was further reduced compared to 2019 due to the reduction in the number of operating hours of TPP Plomin 2.

> The largest share of 95 percent, i.e. 56.094.45 tons in the produced non-hazardous waste in 2020 in HEP had fly ash from coal combustion 40,805.07 tons, gypsum 6,668.6 tons, slag 4,308.84 tons, ash from combustion untreated wood 2,321.68 tons, concrete 1,066.29 tons and iron and steel 923.98 tons. The rest of the non-hazardous waste in the amount of 5 percent refers to mixed metals, wood waste from cleaning debris and maintenance of transmission line routes and busi-



ness circles, decarbonization sludge, cable conductors that do not contain hazardous substances, insulation materials, mixed construction waste, etc.

Compared to 2019, during 2020 the amount of non-hazardous waste produced in Plomin decreased, namely fly ash from coal combustion by 23.06 percent, gypsum by 51.41 percent, slag by 44.03 percent and sludge from industrial water treatment by 20.79 percent. The reason for the reduction of the generation of these types of waste is the reduced number of operating hours of TPP Plomin 2.

In 2020, 61 m³ of low and intermediate level radioactive waste was stored at the Krško NPP



Produced quantities of hazardous and non-hazardous waste in HEP in 2019 and 2020

Waste type	2020/ t	2019/t	2020/2019.%	Share of waste type in total quantity 2020 (%)
Hazardous	1,471.00	3,105.98	52.64	2.43
Non-hazardous	59,047.78	81,001.11	27.10	97.57
Total	60,518.78	84,107.09	71.95	100.00

Waste according to management methods

ated waste generated by HEP, were handed over for recovery, and metal compounds, recythe authorized waste manage- 6,107.90 tons were disposed of, ment company, depending on and the rest was handed over the type and properties of waste for preliminary preparation or and management possibilities in Croatia, carries out the procedure of preliminary preparation (PP), recovery (procedures), dis-

After handing over the gener- tons in 2020, 51,200.71 tons exported due to the inability to manage these types of waste in the territory of the Republic of

posal (procedures D) or export The most common recovery of waste. Of the total amount of procedures applied by authorhazardous and non-hazardous ized companies to waste generwaste produced of 60,518.78 ated at HEP in 2020 were: recy-

cling / recovery of waste metals cling / recovery of other waste inorganic materials, reprocessing of waste oils or other ways of reuse of waste oils and storage of waste prior to any of the recovery operations, other than temporary storage at the place of origin, prior to collection. The most common disposal procedure is the disposal of waste in or on the ground, e.g. a landfill.

non-hazardous waste was disposed of at the internal landfill cement generation company li- at HEP in 2020.

A total of 3,945.54 tons of total non-hazardous waste pro- ered 87.70 percent of the total in Plomin, i.e. 6.68 percent of the censed to recover waste, recov-

duced in 2020 at HEP. Holcim, a non-hazardous waste produced

Produced, recovered and disposed waste at the landfill in Plomin in 2019 and 2020

	Floating ash from burning coal	Gypsum	Slag	Sludge from industrial wastewater treatment
Produced in 2020 / t	40,805.07	6,668.60	4,308.84	338.36
Produced in 2019 / t	53,035.85	13,724.76	7,698.13	427.17
2020/2019 %	23.06	51.41	44.03	20.79
Recovered 2020./ t	40,550.07	6,668.60	956.66	0.00
Recovered in 2019 / t	52,755.85	13,724.76	0,00	0.00
Deposited 2020 / t	255.00	0.00	3,352.18	338.36
Deposited 2019 / t	280.00	0.00	7,698.13	427.17
Recovered / produced 2020%	99.38	100.00	22.20	NA
Recovered / produced in 2019%	99.47	100.00	NA	NA
Deposited / produced 2020%	0.62	NA	77.80	100.00
Deposited / produced in 2019%	0.53	NA	100.00	100.00

Amount of low (LILW) and medium and high radioactive waste (LRAW) per kWh for 2020

co-owned by HEP d.d. and GEN duced on the threshold of the plant. Energija (50%: 50%), so Hrvatska Krško NPP, but is also responelektroprivreda takes over 50% sible for the half of the waste

Krško Nuclear Power Plant is of the annual electricity pro- generated by the nuclear power

Quantity of radioactive waste RAW / kWh in 2020

Electricity generation energy in 2020 on the threshold of NPP Krško / MWh	6,040,820.62
186 LILW with a volume of 61 m³ and a net weight of 45,037.00 kg were	stored
LILW (volume) 61 m³ / 6,040,820.62 MWh	1,0098 x 10 ⁻⁸ m³/kWh
LILW net (weight): 45,037.0 kg / 6,040,820,620 MWh	7,455 x 10 ⁻⁶ kg/kWh
VRAO - spent fuel - there was no fuel change in 2020 (2020 was the so-	alled maintenance-free year)

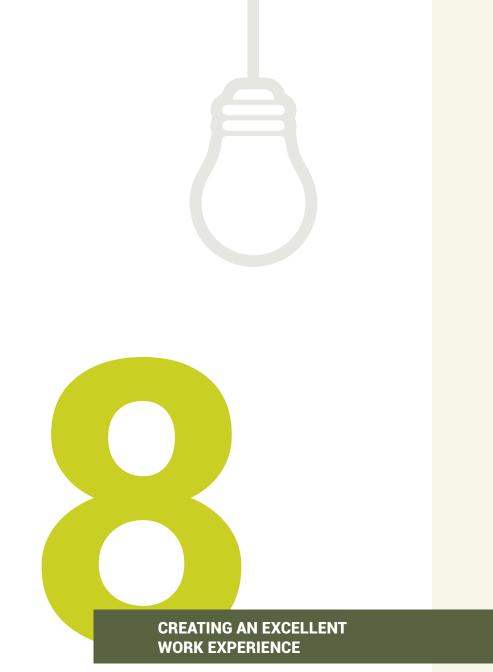
 Waste management projects and activities and transition to a circular economy

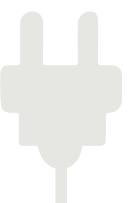
Waste management in accordance with the objectives of the circular economy in TPP Plomin. A total of 40,550.07 tons of fly ash from coal combustion, 6,668.60 tons of gypsum and 956.66 tons of sludge from incineration of untreated waste, i.e. 87.70 percent of the total non-hazardous waste produced, were handed over to Holcim, which has a permit for waste recovery in 2020. This company recovered 99.38 percent of fly ash from coal combustion, one hundred percent gypsum and 22.20 percent of slag generated in the process of electricity generation in Plomin in 2020.

In 2020, the company Holcim recovered 99.38% of fly ash and 100% of gypsum generated in TPP Plomin









Creating an excellent work experience

Continuous care that the HEP Group brings together experts in various fields, but also to provide them with a quality job, is extremely important for the long-term sustainable business development of the HEP Group and the organization of business processes.

Only by ensuring human potential can the continuity of quality management of the HEP Group and its core business be achieved. At HEP, we want to attract and retain quality, professional workers, especially technical professionals in the jobs that are necessary for the smooth operation of the power system.

Contribution to the UN SDGs:





Material topics:

desirable employer diversity and inclusion

safe and healthy working environment dialogue with social partners

ESG criteria:

labor rights
gender equality

non-discrimination
diversity and inclusion

health and safety collective bargaining

In 2017, the HEP Group's Long-Term Human Resources Development Strategy for the period 2017-2030 was adopted. It sets out guidelines for the sustainability of human resource management. When drafting employment plans, employment planning is taken into account depending on the time required for knowledge transfer and the time required for introduction to the job, taking into account the age structure and possible departures of experts in key positions.

Succession and ongoing targeted training and development are our priority in managing the working structure of the HEP Group, which ensures the timely transfer and retention of specific knowledge important for the conduct of business processes. Conducting surveys of organizational climate and workplace satisfaction and applying exit interviews gather feedback from employees important for the design of future employment plans and job creation.

In addition to the mentioned strategy, the policies governing the area of human resources

management are the Diversity and Non-Discrimination Policy, Mamforce Company Standard which ensures active implementation of gender and family responsible management policies and the Ordinance on procedures and measures to protect the dignity of workers. Our goal is to ensure equal opportunities for all workers in employment and professional development, and to prevent any form of discrimination based on gender, age, sexual orientation, disability, ethnicity or religion. HEP Group companies have appointed commissioners or commissions for the protection of dignity authorized to receive and resolve complaints related to harassment.

Safety management in all HEP Group companies arises from the obligation set by the Occupational Safety and Health Act, and each company has its own regulations on occupational safety which further regulate this area. Also, health and safety issues are covered by the Collective Agreement and relate to the protection of life, health and dignity of workers and ensuring their health and safety.

When it comes to health and safety at work, HEP d.d., HEP Upravljanje imovinom and HEP ODS have a certified health and safety management system introduced according to ISO 45001: 2018, and in HEP Proizvodnja the establishment of this system is underway. Health and safety management systems in companies are part of an integrated management system according to ISO standards.

The risks identified in the field of human resources management relate primarily to the existing age structure, which is taken into account when developing employment plans by emphasizing the need for timely employment planning depending on the time required for knowledge transfer and introduction to work. Furthermore, the opportunities on the labor market are such that younger technical professionals are more interested in working in private companies; we try to attract such staff by providing scholarships for full-time graduate students and full-time high school students. The biggest risk in 2020 was certainly the coronavirus pandemic.

Covid-19:

Responding to the challenges of the pandemic

In 2020, we encountered specific challenges related, on the one hand, to the protection of health and safety related to the outbreak of the covid-19 pandemic, and then the organization of work and opportunities for education and professional development.

With the outbreak of the pandemic, the Management of Hrvatska elektroprivreda appointed a Crisis Management Team, led by the head of the Service for Occupational Safety and Fire Protection. Continuous communication with all companies has been ensured and occupational safety experts in companies have been activated, instructed to follow the recommendations and act according to the measures adopted by the team.

An instruction was prepared stating the procedure for dealing with the symptoms of infection, as well as a decision on the current suspension of business trips outside the Republic of Croatia and a recommendation on the postponement of private trips. In order to ensure the smooth functioning of the system, data were collected from all sectors, offices and companies on the required number of workers, a temporary decision on working from home was made for those workers whose nature of work allows it, as well as a decision regulating temporary work stoppage in premises where business with customers is performed, switching offs, restaurant operation and hold-

. . . .

ing all formal or informal meetings.

All planned works related to the maintenance of the electricity, heat and gas network were temporarily postponed. This, of course, did not apply to the elimination of interruptions in the supply of electricity, heat and gas, caused by failures in distribution systems.

In accordance with the measures and recommendations of the National Civil Protection Headquarters, the Crisis Management Team provided hand sanitizers in all business premises. Likewise, workers were first given washable face masks, after which they were continuously given disposable masks, and were informed of

the measures to be followed. Disinfection of the premises and measurement of the physical temperature of workers and visitors is carried out, and the Crisis Management Team communicates with organizational units about specific situations and activities they can undertake, monitors and records the number of infected workers and workers in self-isolation.

The education system also faced a major challenge during the pandemic. At the global level, the digitalization of education has been launched, and in accordance with that, there have been changes in the HEP Group. It was necessary to reduce physical contact and temporarily suspend all trainings and meetings that are not crucial for the smooth operation of the HEP Group. Therefore, the activity in the system of HEP Academy for e-learning and independent enrollment in available courses has increased, as well as the need to continue this approach to internal education of employees.

HEP Opskrba awarded the Excellence in Challenges award. HEP Opskrba participated in the Excellence in Challenges project



and, together with eight other companies that stood out for the welfare of their employees during the challenging period of the coronavirus pandemic, received the recognition from the human resources consulting company Selectio. The goal of this recognition is to promote and exchange the world's best practices and commendable initiatives launched by many companies during the pandemic period. All award-winning employers, including HEP Opskrba,

provided temporary work from home to all employees whose nature allows, communicated with their employees in a timely and transparent manner, and provided them with a number of additional benefits and support programs to alleviate that stressful period.

Working conditions and collective bargaining

The Collective Agreement for Hrvatska elektroprivreda in force during 2020 and 2021 was concluded on October 30, 2019 and signed by two representative unions (Croatian Electricity Trade Union - HES and the Independent **Trade Union of Croatian Electric** Power Industry - NSRHEP) and the Association of Employers of Croatian Electric Power Industry, members which are HEP Group companies. The collective agreement applies to all employees of the signatory companies.

All workers, regardless of their employment status, i.e. whether they have a fixed-term or indefinite employment contract, exercise the same level of rights from the Collective Agreement. Also, the Collective Agreement provides for part-time workers:

- full amount for transportation costs
- reward for long-term work with the employer (according to the conditions set out in this Collective Agreement)
- extraordinary assistance (according to the conditions

Agreement)

- · the full amount of the holiday allowance
- full amount of payment on the occasion of HEP Day, **Christmas and Easter**
- the full amount of the salary supplement for continuous employment with the employer
- the full amount of the salalength of service
- the full amount of supplement for meals

In addition to the prescribed legal deadlines in which significant changes in business are notified in advance, the Collective Agreement obliges the employer to inform unions in a timely manner, and at least once every two months, about the preparation of plans for restructuring and privatization of the employer.

Also, during 2016, HEP Group companies made decisions on incentive measures for termi-

set out in this Collective nation of employment, which are still in force. According to the decision, the age limit for exercising the right to incentive measures for retirement is 63.5 years. Workers who meet this condition can initiate the conclusion of an agreement to terminate the employment contract with the employer.

HEP Opskrba awarded the Employer Partner certificate. The ry supplement for the total Employer Partner Certificate has been awarded since 2005 to companies that meet high standards of excellence when it comes to human resource management, and HEP Opskrba was awarded this recognition for the second year in a row in 2020. Passing a comprehensive analysis of the human resources management process in five large areas, HEP Opskrba achieved a higher result in four areas, and especially stood out in the one related to the training and development of employees.

Education and professional development

The needs for employee education are determined at the level of organizational units and companies of the HEP Group and are implemented in accordance with the education plan for the current year.

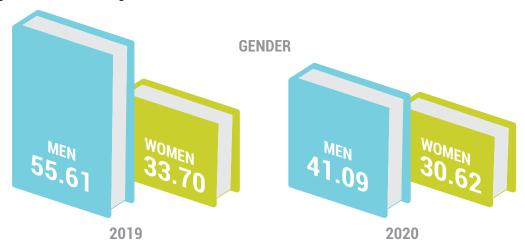
In 2020, the HEP Group invested a total of HRK 7,242,690 in the education of employees, of which HRK 2,803,563 for professional training and HRK 3,072,003 for professional training. On average, HRK 688 per worker was invested in education, and 32.67

percent of workers were involved in some form of education.

The coronavirus pandemic, the application and adherence to epidemiological measures in 2020 have affected the way learning is organized. Workers had the opportunity to attend live trainings, but e-learning was approached more intensively, i.e. sending workers to online trainings and webinars.

HEP Academy, as the internal educational center of the HEP Group, actively manages the ideas, information and knowledge possessed by our employees and identifies, selects and disseminates key knowledge located inside and outside the organization. HEP Academy is already recognized as a place that organizes and creates trainings for the entire HEP group. In 2020, employees of all HEP Group companies will have access to the Moodle e-learning system. i.e. e-courses.

Average number of training hours in 2020



Average number of training hours in 2020



We refer employees to postgraduate studies, further education. retraining, targeted professional development and vocational training; however, HEP Group does not have formal programs for acquiring skills and lifelong learning that support permanent employment opportunities and help to successfully complete the working life.

We support the education and professional development of employees in order to adapt to the needs of the market, with the application of existing and the development and integration of new knowledge and skills in business activities. Thus, 51 workers were sent for additional training with the aim of acquiring higher qualifications and additional professional knowledge, and the monitoring of contractual obligations of workers attending postgraduate specialist or doctoral studies at the expense of the employer continued.

As in previous years, the emphasis is on referring employees to targeted professional development and professional training that ensures the acquisition of specific knowledge and skills needed to meet long-term business goals and improve key business parameters. We continued with the organization of foreign language courses, sending workers to conferences. professional workshops, symposia, seminars, conferences, professional gatherings (CIGRE, CIRED), certified programs (for trading on energy exchanges, in the field of project management, etc.) and professional training according to workplace needs or legislation.

Organized by HEP Teaching and Educational Center in Velika, specialist training programs in the field of live work were or-

ganized, verified by the Ministry of Science and Education, as well as other professional training and professional training related to electrical and legal regulations.

The employees also expressed interest in education in the field of energy, environmental protection, internal audit, controlling, finance, accounting, public procurement, law, human resources, ISO standards, marketing, office operations, information and communication technologies, project management, communication skills and leadership skills.

In the Education Records application, regular data entry and updating of realized educational activities at the expense of the employer was carried out and a new scholarship report was defined. In cooperation with the Sector for Human Resources and the Sector for Information **Annual and Sustainability Report | HEP Group**

and Communication Technologies, the activity of connecting applications in the field of professional development of workers continued.

In accordance with the Long-Term Human Resources Development Strategy of the HEP Group for the period 2017-2030, work continued on the development of a mentoring system for monitoring trainees with the aim of standardizing the process of introducing new employees to the HEP Group level, as well as preserving and optimally using existing key knowledge. In 2020, the method of monitoring, reporting and conducting internships was defined, and a based on qualitative and quanproposal for application support in the establishment of a mentoring system was developed. A training program for the development of key mentoring skills has been prepared, as well as a ed accordingly. The trainings manual to assist in the implementation of evaluation and assessment of trainees' work, and qualitative criteria and key indicators of training success have tem of the group. Also, through been defined.

In 2021, we plan to continue investing in formal and informal education and development of employees and enable them to acquire knowledge and skills needed to do business effectively and implement new 17 trainings, six live and 11 knowledge in all business segments, awarding scholarships

to full-time students and cooperation with the scientific and educational community. by implementing the planned activities in the context of representing the HEP Group as a desirable and socially responsible employer.

HEP Academy. In addition to internal trainings that are performed in the classic way, HEP Academy bases its work on the organization of trainings through Moodle, an e-learning system tailored to the needs of the HEP Group in cooperation with other sectors of the company. The selection of trainings procured by HEP Academy is titative research and analysis of markets and trends, as well as according to the needs of organizational units, and the procurement process is directorganized by HEP Academy for the employees of the HEP Group are mostly trainings of general importance for the entire systhe trainings of HEP Academy, employees can suggest trainings that they would like to attend in the future.

In 2020, employees successfully completed a total of 10,400 individual trainings. A total of e-courses were held. The following internal trainings were organized by HEP Academy, HEP Human Resources Depart-

- for a total of 299 participants, a series of live trainings were held on the topics of selection procedure. teamwork, business correspondence, project management and stress management
- online training was held for 10,101 participants, and covered the topics of GDPR, basic and advanced functions of Excel, public procurement, stress management, delegation, green business and authorized persons for the implementation of occupational safety measures

HEP Balance. HEP Balance is

an initiative aimed at improving the quality of life through the promotion of health and healthy lifestyles, education, lectures and celebration of important days, as well as the possibility - when the conditions are right - to use psychological and legal assistance for employees. The goal is to provide information that leads to the adoption of new, healthier habits and behaviors and increase the quality of life. This in turn has the effect of greater engagement and productivity, fewer absences and greater overall satisfaction with private and business life.

Diversityand equal opportunities

All iobs in the HEP Group are available on equal terms to qualified men and women, regardless of marital and family status, pregnancy and maternity, sexual orientation and any discriminatory grounds.

When publishing the vacancy announcement, it was clearly pointed out that persons of both sexes can apply for the adver-

of the job in the masculine and feminine gender is used in advertising. In the documentation on the selection or promotion of candidates, including the advertisement (internal or external), the emphasis is on the fact that employers in the HEP Group seek and provide the possibili-

tised position. Also, the name ty of equal access to all jobs for persons of both sexes.

> In the HEP Group, the employer regulated the issue of discrimination with the Ordinance on the procedure and measures for the protection of the dignity of workers for each company of the HEP Group and the Code of Ethics.

> > Average entry level

salary (HRK)

The ratio of average minimum and starting wages in 2020 to gender



range of coefficients for salary calculation is defined by the Collective Agreement; the data shown in the table refer to the average lowest paid salary in HEP Group companies.

No cases of discrimination were recorded in HEP Group companies, i.e. no complaints were received due to violation of the Code of Ethics, both internally

In HEP Group companies, the and by end customers and other stakeholders.

Advanced Mamforce standard.

Companies that have started introducing better working conditions for parents-employees were awarded basic and advanced Mamforce Company standards at the Responsible Employer for Responsible Parenting 2.0 conference held at the end of 2019. HEP strives to

improve working conditions for parents - its employees and continuously promotes gender equality and family responsible business. Greater involvement of fathers in the educational process of children, namely their right to parental leave, as well as greater flexibility of working hours will be encouraged.

Performance review and feedback

The fifth evaluation period for HEP Opskrba in 2020 was joined by the second evaluation period for HEP Trgovina.

Out of 90 HEP Opskrba employees, 81 of them met the formal prerequisites for participation in the performance management system, which makes up 90 percent of HEP Opskrba employees. In HEP Trgovina, 38 of the 45 employees met the formal prerequisites for participation in the performance management system, which makes up 84 percent of the company's employees. According to the Ordinance on Performance Management and Remuneration, workers who cannot be assessed within the performance system are trainees and workers employed for an (un) determined period of less than six months within the evaluation period.

Within the evaluation period, all activities prescribed by the Ordinance on Performance Management and Remuneration (annual interviews with employees, mandatory semi-annual and additional consultations as needed and final, development interviews) were carried out with the support of the Human Resources Department. All employees participated in internal trainings and courses on the system, attended external trainings, all with the aim of achieving the set individual goals and strategic goals of the company. At the end of the evaluation period, it was determined that 81 HEP Opskrba employees met the condition for performance workers in the performance sys-(46%) are men. In HEP Trgovina, 37 employees met the condi-

. . . .

tion for performance appraisal. Of the 37 employees who meet the requirements for evaluation in the performance system, HEP Trgovina has 9 (24%) women and 28 (76%) men.

In the context of a hierarchical structure, the performance of managers within the performance system is observed through the performance of the organizational unit they manage. In addition, they were assessed in the development aspect, more precisely in the area of behavioral competencies and work behavior, as well as all other workers. Regarding other hierarchical levels, out of the total rated employees, the managers in HEP Opskrba are 13 (16%), appraisal. Of the 81 eligible and the employees in the operational level 68 (84%), while in tem, 44 (54%) are women and 37 HEP Trgovina there are 4 managers (11%) and the employees in the operational level 33 (89%).

Health and safety in the workplace

The governing company HEP d.d. has certified health and safety management systems according to the international standard ISO 45001 as well as subsidiaries **HEP ODS and HEP Upravljanje** imovinom, while the introduction of this system in HEP Proizvodnja is in progress.

The safety management system in all HEP Group companies derives from the obligation set by the Occupational Safety and Health Act, and each company has its own regulations on occupational safety which further

regulate this area. Also, health and safety issues are covered by the Collective Agreement and relate to the protection of life, health and dignity of workers and ensuring their health and

The total workforce is represented through the Occupational Safety and Health Committee. and in all organizational units where working conditions so require, an occupational safety and health commissioner is Workers with a high frequency or high risk of illness, as well as other workers who are subject to high risks in business and performance of work tasks are generally covered by the Collective Agreement, while internal acts of subsidiaries describe and recognize such jobs as potential dangers, harms and efforts in the workplace. They are subject to the highest degree of protection of the health and safety of workers.

Injuries at work according to companies in 2020

Company	2019	2020
HEP d.d.	4	1
HEP Proizvodnja	21	3
HEP ODS	124	92
HEP Toplinarstvo	6	2
HEP Plin	3	0
HEP Elektra	2	1
Total	127	99

Compared to the previous year, the number of injuries at work in all companies decreased, and at the level of the HEP Group by 22.05 percent.

Risk identification and training.

Procedures for hazard identification, risk assessment and accident investigation are regulated by the Hazard Identification and Risk Assessment Procedure. This procedure determines the procedures and responsibilities of the occupational health and safety management system of the documented scope of HEP Group companies for continuous identification of hazards, harmfulness and work effort, risk assessment and determination of necessary controls in the field of occupational health and safety management. The procedure defines the ways and methods of making a risk assessment, the mandatory contents covered by the assessment and the data on which the risk assessment is based with regard to the the time. Based on the obtained and practically.

classification of work-related hazards or harmfulness.

The expert working group, appointed by the President of the Management Board and numbering about twenty members from HEP Group companies and organizational units, is in charge of harmonizing, consolidating and coordinating tasks, existing valid acts and instructions, and drafting plans and programs of measures to improve and improve occupational safety and health as well as protection from fire in HEP. Workers themselves, who are familiar with all the elements of danger and risk risk assessment for jobs.

Each accident at work is investigated to determine whether the accident occurred due to negligent performance of work, unprofessional and improperly used means of work or the accident occurred for some reason beyond the worker's control at

data, protection measures are assessed and adopted, and attempts are made to anticipate actions that can prevent the recurrence of the accident.

Worker training is carried out continuously, when hiring new workers, changes in jobs, changes in work technology and after an injury at work. The training is conducted in accordance with the work processes and jobs that workers perform during working hours. For the implementation of training and / or training, programs are used that were revised in 2019 and they face, also take part in the harmonized with all changes in the law and applicable regulations. The programs include jobs for jobs located within Hrvatska elektroprivreda. For low-risk and special-duty jobs, training programs designed for distance learning are used, while for all other training, training is conducted theoretically Adverse effects on health and safety are prevented by informing employees and other workers about all the dangers that threaten them in the workplace. For this purpose, work instructions are published and signs and notices are highlighted. **HEP Group companies monitor** the application of measures and rules in the field of occupational safety and fire protection.

Healthcare service. The Collective Agreement provides all HEP Group employees with an annual physical checkup. Also, all employees who work in high-risk jobs perform periodic examinations to determine their health status and ability to perform jobs. For each job, the worker must obtain a doctor's certificate that he is capable of demic and the need to comply performing them, and if a worker has limited working capacity, a procedure is initiated to determine whether the worker can use aids (glasses, hearing aids, etc.). gives consent) to continue to perform these tasks.

Promoting health. Health Day is an event that, in addition to a wealth of positive experiences, provides employees with many new insights into the importance of sports, healthy and regular diet and eating habits, as well as valuable information on body composition analysis and numerous tips from other areas of healthy living. Employees of HEP Opskrba, HEP Elektra Group employees. Due to the and HEP ESCO were able to per- new circumstances. Multisport have been made for them.



form an analysis of body composition by weighing on Tanita scales during Health Day 2020, but due to the circumstances caused by the Covid-19 panwith epidemiological measures, this possibility was temporarily stopped.

Regular physical activity is one the most severely damaged. of the prerequisites for a healthy and quality life. Given that the modern age and lifestyle that imposes a sedentary lifestyle ly damaged the business and and thus insufficient movement, it is necessary more than ever to encourage physical activity. Therefore, in 2020, the HEP Group provided its employees with the use of the MultiSport card, with which employees can participate in various sports events on a daily basis, and in 2020 it was used by 1,404 HEP

card users are also enabled to participate in online training.

Earthquakes in central Croatia.

In the earthquake that occurred in Zagreb on March 22, several work spaces were damaged and became temporarily unusable. The HEP ODS building in Gundulićeva Street in Zagreb was The earthquake that occurred on December 29 with the epicenter near Petrinja significantoperational building of HEP ODS - Elektra Sisak, and also damaged the buildings of HEP ODS in Hrvatska Kostajnica and Glina, TE-TO in Sisak, while HEP Toplinarstvo premises in Sisak were closed for safety concerns. All these buildings have been thoroughly inspected, assessed with regard to the possibility of use, and rehabilitation plans

HEP people in numbers

Total number of employees in 2020

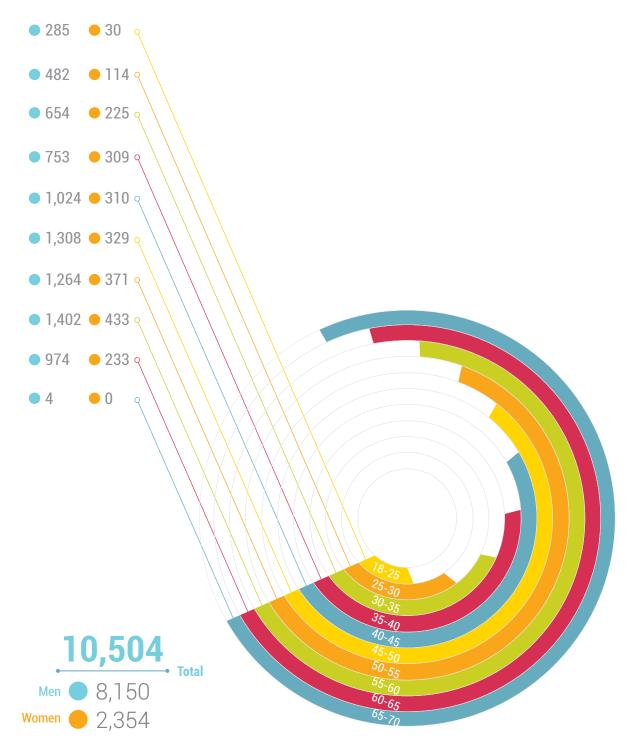
YEAR		31/12/19	% of total number of employees	31/12/20	% of total number of employees
	<30	858	8.4%	911	8.7%
AGE GROUP	30 - 50	4,871	47.5%	4,912	46.8%
	50>	4,522	44.1%	4,681	44.5%
TOTAL		10,251	100%	10,504	100%
GENDER	Men	7,979	77,8%	8,150	77.6%
GLINDLN	Women	2,272	22,2%	2,354	22.4%
TOTAL		10,251	100%	10,504	100%

Management in 2020

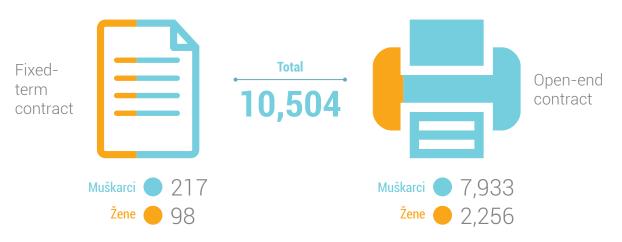
YEAR		31/12/19	% of total number of employees	31/12/20	% of total number of employees
	<30	0	0%	0	0%
AGE GROUP	30 - 50	66	57.4%	65	56.5%
	50>	49	42.6%	50	43.5%
TOTAL		115	100%	115	100%
GENDER	Men	96	83.5%	97	84.4%
GLNDLN	Women	19	16.5%	18	15.6%
TOTAL		115	100%	115	100%

87

Employees according to age



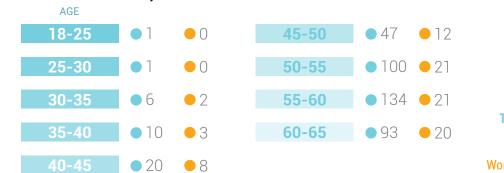
Employees according to type and duration of contract



Educational structure of employees

EDUCATION DEGREE	WOMEN	MEN
Doctoral degree	5	16
Master's degree	50	140
Bachelor's degree	854	1,520
Associate degree	284	589
Secondary school	1,050	3,909
Elementary school	41	51
Highly skilled	2	895
Skilled	36	922
Semi-skilled	5	29
No skills	27	79
Total	2,354	8,150

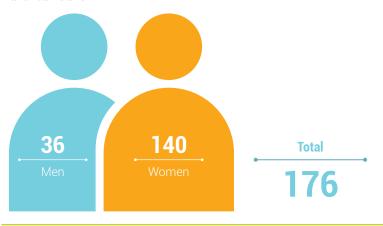
Persons with disability



New employees and employee turnover

Age group	Employed 2019	Employed 2020	Departures 2019	Departures 2020
MEN				
< 18	1	0	0	0
18-25	79	91	2	3
25-30	109	78	17	15
30-35	79	53	21	7
35-40	44	37	19	3
40-45	34	29	16	12
45-50	23	18	16	11
50-55	13	6	7	11
55-60	2	1	10	13
60-65	2	0	35	64
65-70	0	0	31	50
Total	386	313	174	189
WOMEN				
18-25	0	12	0	0
25-30	20	26	4	2
30-35	44	18	2	2
35-40	35	19	4	4
40-45	22	18	6	3
45-50	11	5	3	0
50-55	9	3	2	0
55-60	1	2	1	2
60-65	0	0	9	19
65-70	0	0	2	6
Total	187	103	33	38

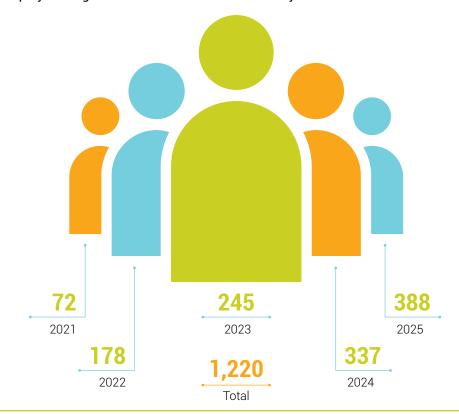
Parental leave



Salaries and compensations

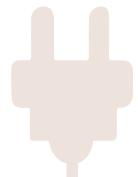
	Ave	erage gross salari	ies in 2020	(HRK)		
		ANNUALLY			MONTHLY	
EDUCATION DEGREE	WOMEN	MEN	RATIO M/F	WOMEN	MEN	RATIO M/F
Doctoral degree	249,567.81	247,162.05	-1%	20,797.32	20,596.84	-1%
Master's degree	236,777.06	248,356.26	5%	19,731.42	20,696.35	5%
Bachelor's degree	179,410.97	190,244.60	6%	14,950.91	15,853.72	6%
Associate degree	139,649.65	151,829.25	9%	11,637.47	12,652.44	9%
Secondary school	117,374.85	124,078.76	6%	9,781.24	10,339.90	6%
Elementary school	93,050.24	94,164.82	1%	7,754.19	7,847.07	1%
Highly skilled	114,036.86	141,419.22	24%	9,503.07	11,784.94	24%
Skilled	106,863.96	113,.684,.1	6%	8,905.33	9,473.73	6%
Semi-skilled	76,789.00	101,042.31	32%	6,399.08	8,420.19	32%
No skills	85,055.20	96,345.00	13%	7,087.93	8,028.75	13%
		Total ratio	8%		Total ratio	8%

Number of employees eligible for retirement in the next five years









Our social impact

As a large business entity, HEP significantly influences a wide range of stakeholders, and given its size and importance, one of its tasks is to constantly encourage the growth and development of society. In 2020, we faced new challenges, in which Croatia, in addition to the global crisis caused by the covid-19 pandemic, was hit by two strong earthquakes, which significantly increased humanitarian needs.

a series of donations aimed at ing up recovery. At the end of day and night in the field to repairing the consequences of the year, in a devastating earththe pandemic and earthquake quake in the Sisak-Moslavina, normalization of electricity supin Zagreb, HEP contributed to Karlovac and Zagreb counties, ply as soon as possible.

With humanitarian projects and mitigating the crisis and speed- all HEP on-duty services worked eliminate faults and ensure the

> Contribution to the UN SDGs:













Material topics:

involvement and cooperation with stakeholders community investment

ESG criteria:

human rights community relations employee involvement in the community

In 2020, the implementation of donation programs continued. Support for projects promoting sports and recreation, i.e. a healthy lifestyle, continued, as well as support for national and regional projects in the field of culture and tradition. An annual tender was held to support projects and programs in five categories: youth, environment, arts and cultural heritage, science and society, and humanitarian action. Scholarships for pupils and students, procurement of IT

equipment for pupils in primary schools to encourage IT literacy and enabling professional internships for pupils and students through work and direct contact with the business environment also continued. The total amount of donations in 2020 was HRK 11.656.930.

In 2020, HEP also awarded prizes to journalists for the best work in the field of environmental protection in order to encourage monitoring of the impact of interventions and activities on

the environment and informing the public. In order to encourage community investment in energy efficiency and renewable energy projects, HEP continued to implement donation projects in the ZelEn program.

Furthermore, the investment plan for RES has been increased in order to achieve the goal of increasing generation from renewable

energy sources by 50 percent, in which cooperation with the local community is key. Cooperation with partners and the local community helps to accelerate the implementation of HEP's renewable development scenario, while municipalities and cities have the opportunity to engage more strongly in the development of sustainable energy infrastructure in their area, which will contribute to their economic and overall development.

For new and existing projects for which it is necessary to conduct an assessment of the need to assess the impact of the project on the environment, the process of assessing the impact of the project on the environment and the ecological network, public information procedures are carried out. The most significant risk relates to the uncertainty of the duration of mentioned assessment procedures in which the public and the interested public are involved, and this risk is beyond HEP's influence.



Involvement of communities in HEP development projects

Solar power plants and cooperation with the local community.

HEP is exploring the possibility of integrating ready-made or renewable energy projects (RES) in a high level of development into its generation portfolio.

Starting from the strategic development goals and the need for diversification of RES projects, in 2020 HEP also published a public invitation to interested partners to express interest in the development and sale of RES projects in the Republic of Croatia.

Local self-government units were invited to jointly prepare development documentation for solar power plant (SPP) projects and legal or natural persons interested in selling non-integrat-

in power development greater than or equal to 2 MW, developing or operating wind farms and hydropower plants developing or operating a power greater than or equal to 1 MW.

Based on the evaluation of the submitted projects in the previous public call, from September 2019 to April 2020, HEP signed agreements with 11 municipalities and cities on the development of solar power plant projects. According to the signed agreements, a part of the local self-government units prepares the project documentation until the location permit is obtained. These are the municipalities of Kršan, Lipovljani, Sućuraj and Viljevo and the City of Mali

ed (stand-alone) SPP projects Lošinj. Other local self-government units are preparing project documentation until a building permit is obtained, namely the towns of Lipik, Novska, Križevci and Ludbreg, as well as the municipalities of Bedekovčina and

> Progress of the Kosinj hydropower system construction project. The future HES Kosinj covers an area of about eight thousand cadastral parcels on an area of 4,749 hectares, located in five cadastral municipalities. For most of the plots, the land registers were not established or were destroyed in the Homeland War, and the data in the cadaster are unorganized. Therefore, in order to be able to initiate the resolution of proper-



Our Social Impact

ty relations, HEP initiated a new cadastral survey which will be the basis for the establishment of land registers. The survey is carried out by the State Geodetic Administration, and is financed by HEP according to the Agreement in which the Municipality of Perušić is included.

In addition to HEP, property owners in the area will also benefit from the new cadastral survey, as this will enable them to clear up their long-standing unsettled ownership situation, which usually requires a lot of time and considerable financial resources. Geodetic surveying works were carried out and at the end of 2019 the procedure of exposing particles to citizens began, and by the end of 2020 the particles in the area of the Studenci-Sklope road, Kosinj most-Bakovac road and the Bakovac-Lika tunnel and canal were resolved. Consequently. for the mentioned constructions, geodetic studies have been prepared and confirmed in the authorized ministry, while for the remaining buildings, the confirmation of the studies in the competent cadaster office is being prepared. Based on the study, the resolution of property-legal relations, i.e. real estate purchase procedures, will be initiated. In this regard, leaflets were printed and at the end of 2020 a call for an amicable settlement of the issue of acquiring property rights for the construc-

tion of the Bakovac-Lika tunnel and canal was published on HEP's website, as well as a notice on initiating the real estate purchase procedure for the HES Kosini project.

In May 2020, works were opened on the construction of the road from Studenci to the existing hydroelectric power plant Sklope, a replacement road necessary for further unimpeded access to HPP Sklope, after the existing road from Kosini most to the power plant will be submerged for the future reservoir Kosinj. Considering that the road will be public, open for traffic to all users, the investor is the Municipality of Perušić, but the execution of works is financed by HEP. Also, in October, the construction of a 28-apartment residential building in Perušić began, in which HEP will provide accommodation for socially vulnerable residents without property who will move out of the real estate in which they live due to future accumulation.

Furthermore, in order to carry out the relocation of remains from local cemeteries in the area of the future accumulation in accordance with legal provisions, HEP concluded an agreement with the Municipality of Perušić, as the local self-government unit that owns the cemeteries. Pursuant to the said agreement, HEP will finance the expansion of the existing cemeteries in Perušić, Studenci and

Kosinjski Bakovac, and if necessary, depending on the number of remains to be relocated, the construction of a new cemetery in Kosinjski Bakovac.

Better and safer water supply for Primorie and islands. Hrvatska elektroprivreda, Hrvatske vode and Vodovod hrvatsko primorje - southern branch signed an Agreement on cooperation in the project of solving the water supply of the Croatian Primorje, the islands of Rab and Pag. This Agreement will separate the water supply from the energy system through the HPP Senj 2 project, which will ensure better and safer water supply of the northern Primorie, specifically the southern branch of the water supply system that supplies settlements from Senj to Karlobag and the islands of Rab and Pag. Residents of this area are now supplied with water from the hydropower system of HPP Seni, i.e. from the Gusić polje basin and the supply pressure tunnel of HPP Senj, and after the completion of the project HPP Senj 2 will receive better quality water directly from the source of the river Gacka.

Investments in the distribution system encourage the sustainable development of islands. The Islands Act 2018 is aimed at encouraging the sustainable development of islands, which includes their stable economic development, equitable distribution of social opportunities for all islanders, environmental protection and increased resilience to climate change. The islands encourage investment in competitive and innovative sectors that are environmentally. spatially, economically, technologically and socially sustainable. The law obliges public bodies to pay special attention to their impact on the development of islands when planning and

implementing projects, measures and activities within their competence. Throughout Croatia, including the islands, HEP ODS develops, builds and improves the distribution network and efficient operation of the distribution system and electricity distribution. Investments in islands in 2020, realized in all coastal counties, totaled at - Hrasta.

135.4 million kuna. Among the most financially significant are investments in the construction of submarine cables Podgora -Hvar (35 kV) and Silba - Premuda and Ugljan - Iž (10 (20) kV), for the purpose of safe, reliable reconstruction of transformer stations 110/35/20 (10) kV Blato on Korčula and Žedno on Ciovo and the reconstruction of the 35 kV transmission line Cres

Sustainable management of natural resources

Space usage fees. In 2020, HEP paid the local self-government units (municipalities and cities) in whose area its power plants are located a total of HRK 89.5 million in fees for the use of space used by electricity generation plants. The fee is paid on the basis of a decision of the Government of the Republic of Croatia, and represents compensation for the avoided benefit of the local community that cannot use the space

occupied by power plants for strategic environmental impact any other economic purpose. The main purpose of using the preparation of projects from European funds to increase energy efficiency and renewable energy sources, preparation of spatial planning documentation and

assessment for energy projects, preparation of energy infrafunds raised is to finance the structure in business zones and technology parks, building renovation projects and projects to help vulnerable customers.



network on the islands in 2020 amount to HRK 135.4 million

Crisis mitigation action

Supporting the healthcare system to mitigate the threat to public health. During 2020, HEP provided support to the healthcare system in the fight against the covid-19 pandemic. The donation to the Clinic for Infectious Diseases Dr. Fran Mihaljević for the purchase of protective equipment, then to the Clinical Hospital Sveti Duh in Zagreb, KBC Osijek for the purchase of respirators and the Institute of Public Health Andrija Štampar for the purchase of apparatus for testing and procurement of tests for SARS-CoV-2 virus are especially notable.

In addition, KBC Zagreb was approved a donation for the purchase of vital signs monitors at the Neonatal Intensive Care by HEP ODS employees at short Unit, and at the initiative of HEP Opskrba, donations were given to rehabilitation centers to help purchase equipment for a safer and better stay. The do- for energy were suspended.

Croatian Red Cross. Also, HEP Opskrba donated T-shirts for health professionals, to the Zagreb hospitals Sestre Milosrdnice, Sveti Duh and Merkur.

Assistance to residents affected by earthquakes. The devastating earthquake that hit Sisak-Moslavina County, Karlovac County and parts of Zagreb County at the end of the year damaged 238 substations, leaving 136,000 users without electricity supply. More than 150 HEP employees managed to restore power supply within 24 hours. Requests for temporary security disconnections of facilities from the network, and then connections at the request of users, were performed notice. As an emergency measure to help the affected population, customer disconnections and foreclosures due to debts nation was also provided to the Based on the conclusions of the

Government of the Republic of Croatia, decisions were made to write off receivables for delivered energy from households affected by earthquake-affected areas for the first five months of 2021, including the costs of moving electrical connections from damaged buildings to temporary ones.

In solidarity with fellow citizens affected by the covid-19 pandemic and the earthquake in Zagreb and its surroundings, rthe employees and the HEP Management Board, by waiving part of their income, joined the action "Croatia Against Coronavirus" as well as the action "Together for Zagreb" in repairing the consequences of the earthquake in Zagreb and its surroundings in March. At the level of the HEP Group, a total of HRK 5.2 million was collected.

Fighting energy poverty

Connection of households in Roma settlements to the electricity grid. HEP ODS and the Ministry of Economy and Sustainable Development signed an agreement on financing the Program of Connection to the Electricity Grid of Households in Roma Settlements within the Government Operational Program for the Roma minority in the period 2017-2020.

. By the contract, the Ministry provided funds in the amount of HRK 2 million with which HEP ODS will realize the connections of users who meet all the necessary legal prerequisites necessary for connection to the distribution network. One of the priorities of Hrvatska elektroprivreda is to provide all citizens in the entire Republic of Croatia with conditions for access to electricity and the use of the electricity network. Out of the total number of about

first phase includes at least 200 connections in seven counties (Sisak-Moslavina, Koprivnica-Križevci, Bjelovar-Bilogora, Brod-Posavina, Osijek-Baranja, Međimurje and Varaždin coun-

Rehabilitation and reconstruc-

tion of the electricity network in the areas affected by the Homeland War. Hrvatska elektroprivreda systematically and continuously implements the program of rehabilitation and reconstruction of electric power facilities in the areas affected by the Homeland War. The investments so far, thanks to which 140 thousand connections have been renovated, amount to more than HRK 2.3 billion. and the total investments in the rehabilitation and reconstruction of the power system amount to more than HRK 3.5 billion. HEP has provided HRK 500 potential connections, the 45.8 million for the continuation

electrification program in the of the project in 2020, with the aim of completing this program by the end of 2021. The investment includes 168 connections in more than 50 settlements in the area of Sisak-Moslavina, Lika-Seni, Zadar, Šibenik-Knin, Split-Dalmatia, Vukovar-Srijem and Požega-Slavonia counties, of which almost half of the connections were realized by the end of 2020.

> HEP ESCO participates in the implementation of the international project SocialWatt, which is financed from the HORIZON 2020 program. It started in September 2019 and lasts for 43 months. The project aims to build the capacity of energy suppliers and utilities and enable them to use the decision support tools developed under the project to effectively target energy-poor households and implement energy efficiency

Support to education

Despite the unfavorable epidemiological situation, the annual donation competition "Light on a Joint Path" was successfully conducted last year, within which support was provided to humanitarian, cultural, educational, environmental, health, scientific and sports projects. A total of 1,024 applications were received for the tender, and afte the evaluation procedure, the Management Board of HEP d.d. at the proposal of the tender committee, decided to allocate funds for the implementation of 263 projects and programs.

As one of the largest employers in Croatia, HEP Group is constantly looking for new employees, especially young people who bring new knowledge and innovation. In the implementation of the competition for 1995, HEP has been awarding the award of scholarships for the school and academic year 2019/2020, the conditions for awarding a total of 67 schol-

arships were met, of which 36 scholarships to students in the final grades of secondary schools and 31 to full-time graduate students, primarily from technical faculties. The contract provides scholarship holders with financial support during their studies and employment in organizational units of HEP Group companies. With this approach and long-term planning, the goal is to provide professional staff in jobs crucial for the functioning of the electricity system and energy infrastructure.

Award IMAM ŽICU! is the longest running socially responsible project in Croatia that connects the economy with primary and secondary education. Since primary and secondary school students, winners of national competitions in mathematics, physics and public exhibition

of experimental works in physics for the previous school year. The award is also given to students of secondary vocational schools in the sector of Electrical Engineering and Computing, who won the first three places in national competitions.

Given that the state competitions for the school year 2019/2020 were held in October and November 2020, and that the unfavorable epidemiological situation made it impossible to hold a usual public event, the Management Board decided to hold an individual award ceremony at the beginning of 2021. The award in the amount of HRK 3,000 was given to 31 students, among which Val Karan from the Ljudevit Gaj Elementary School in Zaprešić stands out. Val won awards in physics and experimental physics. Among the schools, the XV. Gymnasium from Zagreb stands out, whose

students won as many as nine awards. Since the beginning of the implementation of this project, a total of 819 awards have been presented.

In the action "For our little geniuses", 27 primary schools were selected and given 100 new computers worth half a million kuna. The competition was announced in September, and the list of schools winning computer equipment at the end of October 2020. Together with this round of action, so far a total of 450 new computers have been donated to students of 130 elementary schools across Croatia in the total value of donated IT equipment of almost HRK 1,75 million. With the "For our little geniuses" campaign, HEP has been donating new computer equipment to primary schools since 2015 and thus contributing to the development of computer and information literacy in the Republic of Croatia.

In this round, there was an extremely large response from schools, students and their teachers, who recorded creative and original videos, explained why they need new computers and presented the qualities of their school and the specifics of the region they come from. Schools with the best creative work were selected, without having a large number of students per computer, or inadequate and worn-out computer equipment.

In the action "For our little geniuses", 27 primary schools were selected and awarded 100 new computers worth half a million kuna



Cooperation with the scientific and educational community in the program of professional internships. By performing professional practice in HEP Group companies, with professional supervision of mentors, pupils and students are enabled to gain practical knowledge and experience, get acquainted with the rules of work and establish contacts in the business environment, which continues successful cooperation with the scientific and educational community.

The internship is a preparation for more successful involvement in future professional work, and in 2020 it was organized for 486 interns in compa-

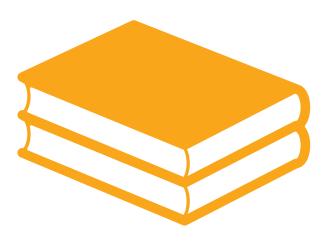
the HEP Group - 383 students of vocational, (maritime) technical, craft, electrical, mechanical, economic and administrative schools and 103 students of primarily technical higher education institutions (mechanical engineering, electrical engineering, chemical engineering and technology, computer science and information technologies), but also polytechnics and university departments and in the field of social sciences. Based on the signed agreement on business cooperation, the professional practice of Effectus students is successfully real-

HEP is involved in professional internship programs of the nies and organizational units of Faculty of Electrical Engineering and Computing in Zagreb - FER, industrial internships of the Faculty of Mechanical Engineering and Naval Architecture in Zagreb - FSB (Atlantis system) and the Faculty of Electrical Engineering, Computing and Information Technology Osijek - FERIT Osijek (Stup portal).

For many years we have been participating in higher education events such as career fairs and Career Speed Dating workshops where young people get the op-

portunity to practice their presentation skills and get quality feedback from the real world of work. We could not realize most of the planned student fairs and workshops in 2020 due to epidemiological measures, but the goal is to further nurture and achieve cooperation with higher education institutions and young future professionals and develop the reputation of a desirable and socially responsible

HEP provides monthly financial support or scholarships for the underage children of its deceased employees. In cooperation with the Rotary Club Zagreb Kaptol, through the humanitarian action "Step into Life", we award scholarships for children without adequate parental care, which also supports the education and development of young people.



Green stories

The annual award for the best journalistic work in the field of environmental protection "Velebit Degenija" was awarded on the occasion of World Environment Day, June 5.

Since 1998, the award has been given by the HND Association

of Environmental Journalists of waste recycling and circular in cooperation with HEP. In the category of radio reports for the show "Europa Dossier" pub-Ana-Bella Leikauff, who recorded a report in Helsinki on elabo-

economy in Finland and creating a market for secondary raw materials, combating climate lished on HR1, the winner is change. The report "The Fate of the Nordic Glaciers", authored by Robert Kakarigi and pubrated plans and implementation lished in the Croatian edition of National Geographic magazine, which was named the best in the category of articles published in the press and on the Internet, also deals with climate change. The winner of the award in the category of television works is Sanja Čatipović for the report "Death of Noble Pen Shells in the Adriatic", published in the show Potraga on RTL Television. Renowned Split photographer and ecologist Srđan Vrančić won the award in the category of photo-reportage for underwater photography, taken during the diving action of cleaning the underwater near Vis Think Green 2019. The awarded photo was published in a photo report in Slobodna Dalmacija and on the Internet.



photo taken during a diving campaign to clean the seabed near Vis

ZelEn donation for energy efficiency. HEP Opskrba offers electricity supply exclusively from renewable energy sources to all its entrepreneurship customers, who have decided to operate responsibly, through a unique product on the Zel-En market. Based on contracts concluded following a public call from 2019, with a total value of a million kuna, in 2020 HEP ESCO implemented donated projects to modernize lighting and introduce an energy management system in the building of the Ljudevit Gaj Elementary School in Osijek and upgrade a photovoltaic power plant at the Vocational High School Varaždin, where the project of installing a heat pump was prepared

"Our ZelEn Story" of HEP Opskrba on Krk. HEP Opskrba employees have been telling "green stories" for years by volunteering to beautify environment and plant trees. The volunteer action "Our ZelEn Story" was in 2020 conducted on the island of Krk, in the century-old park forest Dražica in the city of Krk. The action was organized in cooperation with the utility company Vecla and the City of Krk, and during the action tiles were laid and plants were marked in the park in the Dražica forest and The project involves 11 part-

for implementation.

colored stairs that connect the horizontal paths to the park.

Strengthening the capacity of local government in effective management of water consumption in the tourism sector. HEP ESCO as a partner from Croatia participated in the TOUREST project, which is being implemented in four countries (Greece, Croatia, Italy and Slovenia). The objectives of the project are to adopt studies and recommendations of a joint strategy for public authorities, to develop criteria for evaluating water consumption efficiency in the tourism sector, to use innovative digital tools to support water consumption optimization in the tourism sector and to strengthen local and regional government capacity in sustainable water management in tourism.

HEP ESCO and the City of Split in the FEEDSCHOOLS project (Financing Environment and **Energy Efficiency development** in Schools). CThe aim of the project is to facilitate the implementation of the Energy Efficiency Directive, which creates conditions for more municipalities, financial institutions and consultants to develop comprehensive school renovation projects in the coming years.

ners from seven countries, and in Croatia pilot activities will be carried out at schools in the City of Split. Activities include energy audits of representative school buildings, development of preliminary renovation plans, calculation of CO₂ emissions after renovation, development of energy service models and financing schemes, education of regional energy managers, municipal staff and students, making recommendations for the prevention of identified barriers and integrating project results into city plans. Special attention will be paid to the use of renewable energy sources.

Participation in the TEE-SCHOOLS project, HEP ESCO is also participating in the TEE-SCHOOLS project (Transferring Energy Efficiency in Mediterranean Schools), which also aims to facilitate the implementation of the Energy Efficiency Directive, creating preconditions for more cities, financial institutions and consulting companies to develop thorough school renovation projects in the coming years. In this regard, an integrated set of tools to be developed during the project will be tested and validated as part of pilot activities to be implemented in all regions covered by the project.

Community engagement

HEP people Pride of Croatia. HEP ODS, Elektra Sisak workers Josip Gregorec and Ivan Cestarić received the "Pride of Croatia" award for 2020 for their exceptional contribution to the establishment of re-supply in the earthquake-affected area.

This annual award is given by the association of the same name, which aims to promote courage, humanity and selflessness in Croatian society.

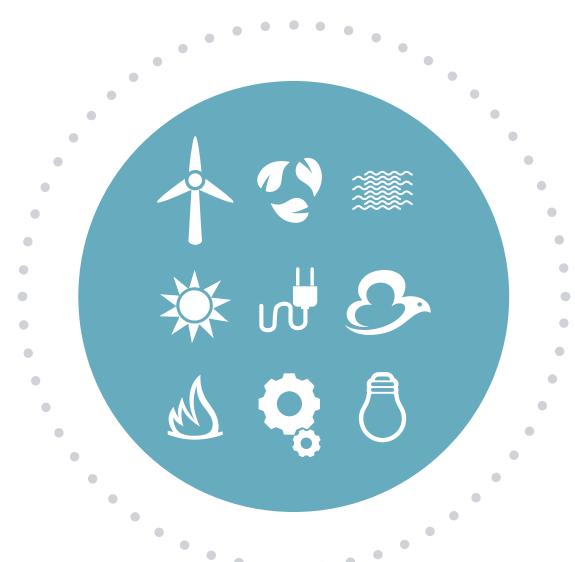
Murals decorating transformer stations. Organized by the Croatian Society of Fine Artists in cooperation with HEP ODS Elektra Zagreb, artists Goran Rakić, Klara Rusan and Danijel Žeželj painted murals on three Zagreb transformer stations at the end of May. Their works were selected in the competition, announced during February 2020. A total of 30 works were submitted to the competition, and the selection of the best was decided by an expert team for the selection of solutions.

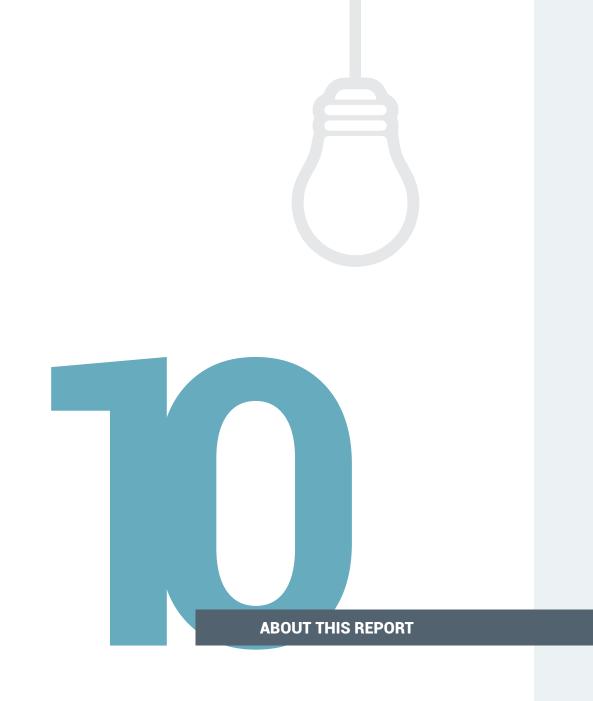
Humanitarian work of HEP Opskrba employees. For many years, HEP Opskrba employees have been happy to paraimed at raising the quality of helping particularly vulnerable groups in society. Thus, in the 2020 pandemic, they continued to participate in the Milky Way race organized by UNICEF, contributed to raising awareness of the problem of peer violence by marking the Day of Pink T-shirts and the dangers and specifics of stroke in women by joining the

Red Dresses Day. In addition to donations of T-shirts for health workers during the first wave of covid-19 infection in Croatia, ticipate in projects and actions HEP Opskrba in 2020 also provided donations to employees life in communities, but also in and Christmas gifts for children without parental care, residents of the Carmelite Monastery of the Divine Heart of Jesus, as well as gifts for children spent the holidays in the hospitals of Zagreb County in an action organized by the Student Section for Pediatrics of the Medical Faculty in Zagreb.



Organized by the Croatian Society of Fine Artists, Goran Rakić, Klara Rusan three Zagreb substations







The HEP Group's Annual and Sustainability Report includes a description of financial and non-financial impact management

> It includes the seventh sustainability report according to the methodology of the Global Reporting Initiative. It describes goals, strategies and activities of the HEP Group in planning and implementing sustainable and responsible business. The report is compiled according reporting periods.

to the core option of the GRI Standard and includes data ac-Sectoral Supplement for Energy. The Sustainability Report is not subject to an external verification process, but we are con-

The previous Annual and Sustainability Report was published cording to the indicators of the in 2020 and is available on the website:

https://www.hep.hr/User-DocsImages//dokumenti/Izvjesce%20o%20odrzivosti// sidering this option for future HEP_2019_Annual_Sustainability.pdf



GRI index

General disclosures

GRI 101: Foundatio	n 2016	
GRI 102: General di	sclosures 2016	
Disclosure		Page
Organizational prof	ile	
102-1	Name of the organization	14
102-2	Activities, brands, products, and service	14, 105
102-3	Location of headquarters	14
102-4	Location of operations	15
102-5	Ownership and legal form	14
102-6	Markets served	15, 65
102-7	Scale of the organization	18
102-8	Information on employees and other workers	181-185
102-9	Supply chain	112
102-10	Significant changes to the organization and its supply chain	112
102-11	Precautionary Principle or approach	134, 148, 157, 162
102-12	External initiatives	33
102-13	Membership of associations	33

GRI 101: Found	dation 2016	
GRI 102: Gene	ral disclosures 2016	
Disclosure		Page
Strategy		
102-14	Statement from senior decision-maker	9
102-15	Key impacts, risks, and opportunities	41-49, 134, 148, 157, 162
Ethics and inte	egrity	
102-16	Values, principles, standards, and norms of behavior	23
102-17	Mechanisms for advice and concerns about ethics	31
Governance		
102-18	Governance structure	26
Stakeholder er	ngagement	
102-40	List of stakeholder groups	42
102-41	Collective bargaining agreements	171
102-42	Identifying and selecting stakeholders	42
102-43	Approach to stakeholder engagement	42
102-44	Key topics and concerns raised	41
Reporting prac	tice	
102-45	Entities included in the consolidated financial statements	4, 15
102-46	Defining report content and topic Boundaries	37
102-47	List of material topics	38
102-48	Restatements of information	15
102-49	Changes in reporting	209
102-50	Reporting period	209
102-51	Date of most recent report	209
102-52	Reporting cycle	209
102-53	Contact point for questions regarding the report	216
102-54	Claims of reporting in accordance with the GRI Standards	209
102-55	GRI content index	210
102-56	External verification	209

Specific disclosures

Standard	Material topics and disclosures	Page
Stability and securit	y of generation, distribution and supply of energy	
GRI 103:	103-1 Explanation of the material topic and its Boundary	46, 94
Management	103-2 The management approach and its component	46, 94
Approach 2016	103-3 Evaluation of the management approach	94
Sector supplement: Electric Utilities	EU 1 Installed capacity, broken down by primary energy source and by regulation regime	17, 97
	EU 2 Net energy output broken down by primary energy source and by regulation regime	18, 75-77
	EU 12 Transmission and distribution losses as a percentage of total energy	101
	EU 28 Power outage frequency	102
	EU 29 Average power outage duration	102
Sustainable constru	ction and development of the energy sector	
GRI 103:	103-1 Explanation of the material topic and its Boundary	46, 89
Management	103-2 The management approach and its components	46, 89
Approach 2016	103-3 Evaluation of the management approach	89
Sector supplements:	EU 4 Length of above and underground transmission and distribution lines by regulatory regime	100
Electric Utilities	EU 30 Average plant availability factor by energy source and by regulatory regime	97
Successful and prof	itable business	
GRI 103:	103-1 Explanation of the material topic and its Boundary	46, 48, 63
Management	103-2 The management approach and its components	46, 48, 63
Approach 2016	103-3 Evaluation of the management approach	63
	201-2 Financial implications and other risks and opportunities due to climate change	120
GRI 201: Economic Performance 2016	201-3 Defined benefit plan obligations and other retirement plans	189
renormance 2010	201-4 Financial assistance received from government	67, 68, 97, 98, 103, 132
GRI 205: Anticorruption 2016	205-3 Confirmed incidents of corruption and actions taken	31
Sector	${\rm EU}$ 5 Allocation of ${\rm CO}_2$ emissions allowances or equivalent, broken down by carbon trading framework	119
supplement: Electric Utilities	EU 27 Number of residential disconnections for non-payment, broken down by duration of disconnection and by regulatory regime	106-107

Standard	Material topics and disclosures	Page
Continuous market utilization of digital	growth and maintained competitiveness on domestic and regional markets; transition	Innovation and
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	48-105
	103-2 The management approach and its components	48-105
	103-3 Evaluation of the management approach	105
GRI 203: Indirect	203-1 Infrastructure investments and services supported	74
Economic Impact 2016	203-2 Significant indirect economic impacts	63
Sector supplement: Electric Utilities	EU 3 Number of residential, industrial, institutional and commercial customer accounts	101, 106-110
Responsible, sustai	nable and quality employer	
GRI 103:	103-1 Explanation of the material topic and its Boundary	44, 167
Management	103-2 The management approach and its components	44, 167
Approach 2016	103-3 Evaluation of the management approach	167
	401-1 New employee hires and employee turnover	184
GRI 401: Employment 2016	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	171
	401-3 Parental leave	184
GRI 402: Labour management Relations 2016	402-1 Minimum notice periods regarding operational changes	171
	403-1 Occupational health and safety management system	178
	403-2 Hazard identification, risk assessment, and incident investigation	179
	403-3 Occupational health services	180
GRI 403: Occupational Health and Safety 2018	403-4 Health and safety topics covered in formal agreements with trade unions	179
	403-5 Worker training on occupational health and safety	179
	403-6 Promotion of worker health	180
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	178
	403-8 Workers covered by an occupational health and safety management system	178
	403-9 Work-related injuries	179

Standard	Material topics and disclosures	Page
Responsible, sustai	nable and quality employer	
	404-1 Average hours of training per year per employee	172
GRI 404: Training and Education 2016	404-2 Programs for upgrading employee skills and transition assistance programs	174
	404-3 Percentage of employees receiving regular performance and career development reviews	177
GRI 405: Diversity	405-1 Diversity of governance bodies and employees	181
and Equal Opportunity 2016	405-2 Ratio of basic salary and remuneration of women to men	185
GRI 406: Non- discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	175
Sector supplement: Electric Utilities	EU15 Percentage of employees eligible to retire in the next five and ten years	175
Sustainable manage	ement of environmental impacts	
Goal 1 and 2: Climat	te change mitigation and adaptation	
GRI 103:	103-1 Explanation of the material topic and its Boundary	119
Management	103-2 The management approach and its components	119
Approach 2016	103-3 Evaluation of the management approach	120
	305-1 Direct GHG emissions	122 - 125
	305-4 GHG emissions intensity	124
GRI 305:	305-5 Reduction of GHG emissions	119
Emissions 2016	305- 6 Emissions of ozone-depleting substances	125
	305-7 Nitrogen oxides (NO_x), sulfur oxides (SO_x), and other significant air emissions	135 - 143
Goal 3: Pollution pre	evention and control	
GRI 103:	103-1 Explanation of the material topic and its Boundary	133
Management	103-2 The management approach and its components	133
Approach 2016	103-3 Evaluation of the management approach	134
GRI 305: Emissions 2016	305-7 Nitrogen oxides (NO $_{\rm X}$), sulfur oxides (SO $_{\rm X}$), and other significant air emissions	135 - 143
GRI 307 Environmental compliance	307-1 Non-compliance with environmental laws and regulations	133
GRI 413: Local communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	134, 135-143

Standard	Material topics and disclosures	Page
Goal 4: Sustainable	use and protection of water and sea	
GRI 103:	103-1 Explanation of the material topic and its Boundary	146
Management	103-2 The management approach and its components	146
Approach 2016	103-3 Evaluation of the management approach	148
	303-2 Management of water discharge-related impacts	147
GRI 303: Water and Effluents	303-3 Water withdrawal	150
and Emdents	303-4 Water discharge	150
Goal 5: Protection a	nd restoration of biodiversity and ecosystems	
GRI 103:	103-1 Explanation of the material topic and its Boundary	154
Management	103-2 The management approach and its components	157
Approach 2016	103-3 Evaluation of the management approach	157
GRI 304:	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	155
Biodiversity 2016	304-3 Habitats protected or restored	155
	304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	157
Goal 6: Waste mana	gement and transition to a circular economy	
GRI 103:	103-1 Explanation of the material topic and its Boundary	161
Management	103-2 The management approach and its components	162
Approach 2016	103-3 Evaluation of the management approach	162
	306-1 Waste generation and significant waste-related impacts	161
ODI 200- W+-	306-2 Management of significant waste-related impacts	161
GRI 306: Waste 2020	306-3 Waste generated	163
	306-4 Waste diverted from disposal	164
	306-5 Waste directed to disposal	164
Stakeholder dialogu	e, transparent communication and public education	
GRI 103:	103-1 Explanation of the material topic and its Boundary	44, 189
Management	103-2 The management approach and its components	44,189
Approach 2016	103-3 Evaluation of the management approach	189
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	63
GRI 413: Local	413-1 Operations with local community engagement, impact assessments, and development programs	191
Communities 2016	413-2 Operations with significant actual and potential negative impacts on local communities	191

Impressum

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