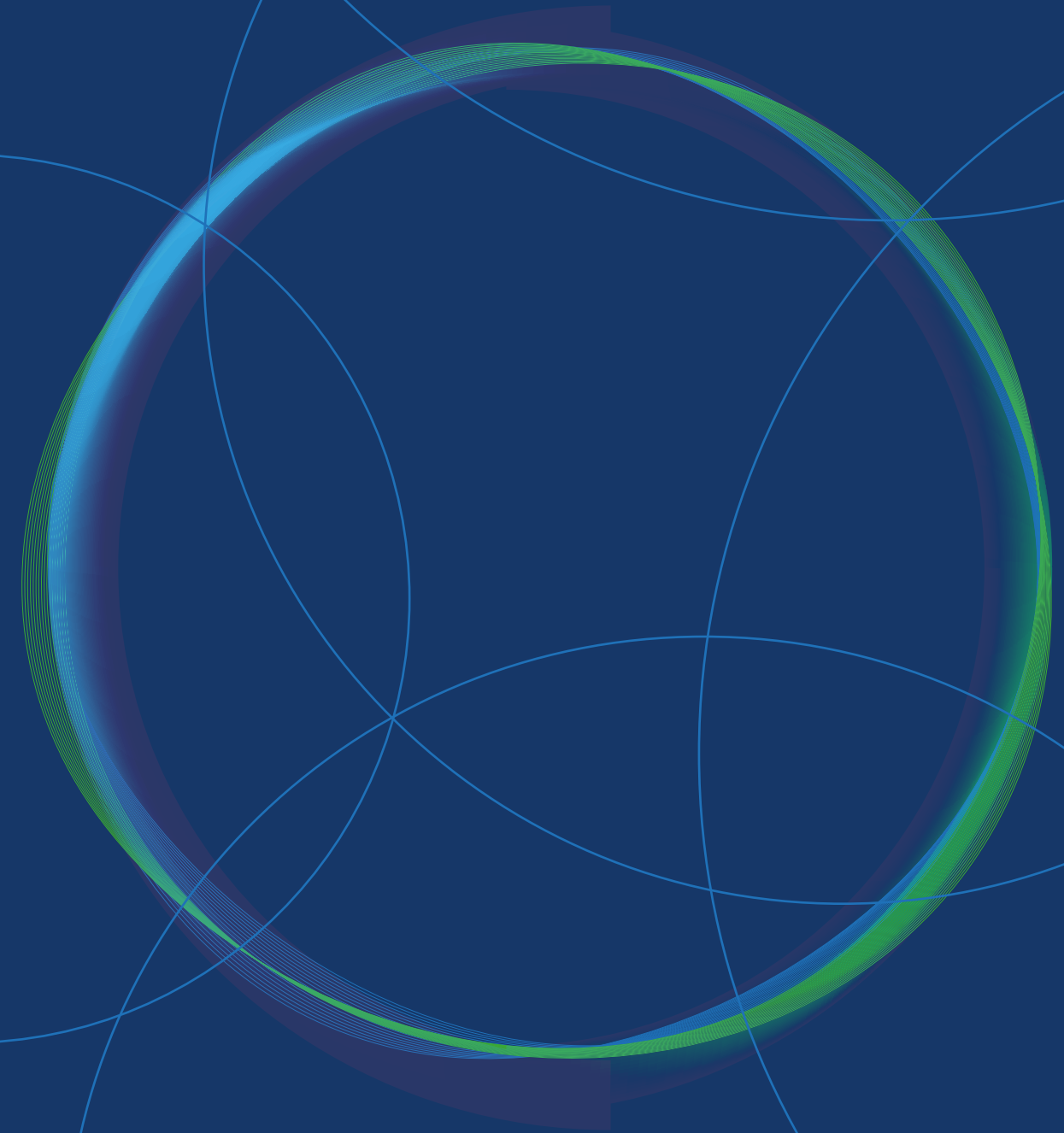


Sustainability
Report

HEP Group
2017



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Report

HEP Group
2017



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5	13	17	31	41	55	87	107	121	128



Overview 2017

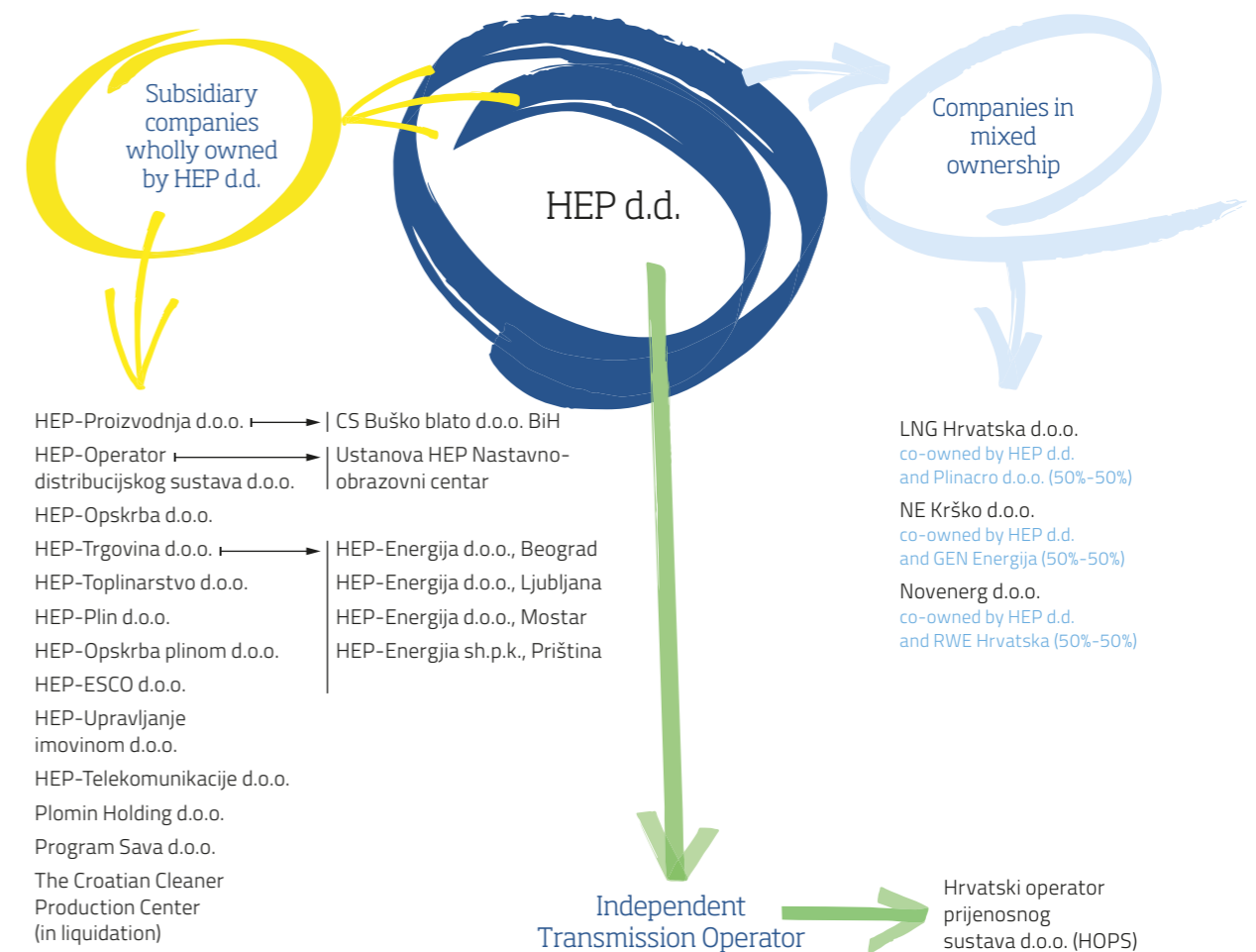


IN 2017, HEP REALIZED INVESTMENTS AMOUNTING TO **2.4 BILLION KUNA.** ALL INVESTMENTS WERE FINANCED WITHOUT ADDITIONAL LONG-TERM LENDING.

1 Overview 2017

On HEP Group

HEP d.d. (Hrvatska elektroprivreda d.d., with the seat in Zagreb) is a fully state-owned parent company of HEP Group. It manages HEP daughter companies and is the owner of assets which are contractually transferred to subsidiaries or daughter companies. The major business segments of HEP Group are generation, transmission, distribution, trade and supply of electric energy. Besides, HEP Group generates, distributes and supplies heat, supplies gas in retail and wholesale markets and provides services in energy sector and other energy and non-energy sectors.



Subsidiary companies wholly owned by HEP d.d.	State	Proportion in ownership (%)	Core business
HEP-Proizvodnja d.o.o.	Hrvatska	100	Electricity generation and heat production
Hrvatski operator prijenosnog sustava d.o.o. ¹	Hrvatska	100	Electricity transmission
HEP - Operator distribucijskog sustava d.o.o.	Hrvatska	100	Electricity distribution
HEP ELEKTRA d.o.o.	Hrvatska	100	Electricity supply of customers as public service
HEP-Opkrba d.o.o.	Hrvatska	100	Electricity supply
HEP-TOPLINARSTVO d.o.o.	Hrvatska	100	Generation and distribution of heat
HEP-Trgovina d.o.o.	Hrvatska	100	Trading in electricity, gas, carbon emissions and green certificates
HEP-PLIN d.o.o.	Hrvatska	100	Gas distribution and supply
TE Plomin d.o.o. ²	Hrvatska	100	Electricity generation
HEP-ESCO d.o.o.	Hrvatska	100	Management and funding of energy efficiency projects
Plomin Holding d.o.o.	Hrvatska	100	Development of local infrastructure near TPP Plomin
CS Buško Blato d.o.o.	BiH	100	Management and maintenance of HPP Orlovac facilities
HEP - Upravljanje imovinom d.o.o.	Hrvatska	100	Management of non-operating assets and tourism
HEP NOC	Hrvatska	100	Education, training and accommodation services
Program Sava d.o.o.	Hrvatska	100	Preparation of multipurpose real estate projects

Subsidiary companies wholly owned by HEP d.d.	State	Proportion in ownership (%)	Core business
HEP Energija d.o.o., Beograd	Srbija	100	Electricity trading
HEP Energija d.o.o., Ljubljana	Slovenija	100	Electricity trading
HEP Energija d.o.o., Mostar	BiH	100	Electricity trading
HEP Magyarorszag Energia kft	Mađarska	100	Electricity trading
HEP Energija sh.p.k., Priština	Kosovo	100	Electricity trading
HEP Telekomunikacije d.o.o.	Hrvatska	100	Telecommunication services
HEP Opkrba plinom d.o.o.	Hrvatska	100	Wholesale gas market supply
Hrvatski centar za čistiju proizvodnju ³	Hrvatska	100	Institution for the promotion of cleaner industrial practice
Nuklearna elektrana Krško d.o.o. ⁴	Slovenija	50	Electricity generation
LNG Hrvatska d.o.o. ⁵	Hrvatska	50	Gas pipeline construction and operation
Novenerg d.o.o. ⁶	Hrvatska	50	Analysis of investment in RES capacities and consulting services

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

² Pursuant to the HEP Management Board decision on the intention to conduct the merger of TE Plomin, the company was merged into HEP d.d., while the TPP was leased to HEP Proizvodnja

³ Since November 13, 2017, the title of the institution is: Hrvatski centar za čistiju proizvodnju, in liquidation

⁴ In consolidated financial statements, the share in NE Krško d.o.o. is shown by the method of joint asset and liabilities

⁵ The joint venture with Plinacro d.o.o. (50%:50%) on the construction and the operation of gas pipelines for evacuating

⁶ Joint venture with RWE Hrvatska d.o.o. (50%:50%)

Overview 2017

Major market indicators

In the reporting period, the business expenditures amounted to 12,674.5 million HRK and by 997.3 million surpass those of the last year (8.5%). The investment reached 2.4 billion HRK in 2017 and all were financed without additional long-term lending. Most of investments were directed at replacements, reconstruction, revitalization and restoration of existing energy facilities (930.3 million HRK), installing customer connections (373.3 million HRK), preparation and construction of new energy facilities (370.9 million HRK). Net debt reached 2,253.1 million HRK and during 2017 was maintained at the level of the beginning of the year. Loans and bonds were serviced in the amount of one billion HRK. Pursuant to the AGM decision, HEP d.d. paid the dividend of 187.3 million HRK more than the previous year.

Successful solvency management was confirmed by Standard & Poor's rating agency, which confirmed the credit rating of HEP as bb and the overall credit rating as BB. In March, Moody's confirmed the long-term credit rating of HEP as Ba2 and upgraded to the stable outlook.

The project of restructuring of HEP ODS continued throughout 2017, with the purpose of adapting the business system to the increasing demands faced by the distribution operators in Europe and Croatia alike and with the goal to advance business processes. The legal obligation of complete separation of the public service of electricity supply from electricity distribution was completed by establishing HEP Elektra.

Financial result

Consolidated statement* (short version)	2016	2017	Δ 2016	%2016
Operating income	14,400.4	14,969.2	+568.9	+4.0%
Operating expenses	11,677.2	12,674.4	+997.3	+8.5%
Operating profit	2,723.2	2,294.8	-428.3	-15.7%
Net profit of the Group	2,045.0	1,300.2	-744.7	-36.4%

*Note: consolidated data include HOPS

Basic indicators ¹	unit	2016	2017	% 2016
Electricity sales ²	TWh	16.8	17.4	+3.1%
Electricity generation	TWh	12.5	12.0	-3.6%
Heat sales	TWh	1.9	1.9	-1.3%
Gas retail	TWh	1.3	1.4	+7.0%
Gas wholesale ²	TWh	6.3	6.2	-1.7%
Operating income	mil. HRK	14,400.4	14,969.3	+4%
EBITDA	mil. HRK	4,617.5	3,749.5	-18.8%
Net profit of HEP Group	mil. HRK	2,045.0	1,300.3	-36.4%
Total assets	mil. HRK	39,232.9	38,851.6	-1.0%
Investments	mil. HRK	2,589.1	2,431.9	-6.1%
Employees		11,832	11,894	+0.5%

¹ Includes HOPS

² In domestic and foreign markets

Generation facilities and distribution network

26 HE – installed capacity 2,094 MW¹

8 TE and 50% NE Krško – installed capacity 2,270 MW

25,259 TS mid and low voltage (35-20-10 kV)

140,436 km of lines of mid and low voltage (overhead and cable)

¹ Without HE Dubrovnik plant, which operates for B-H

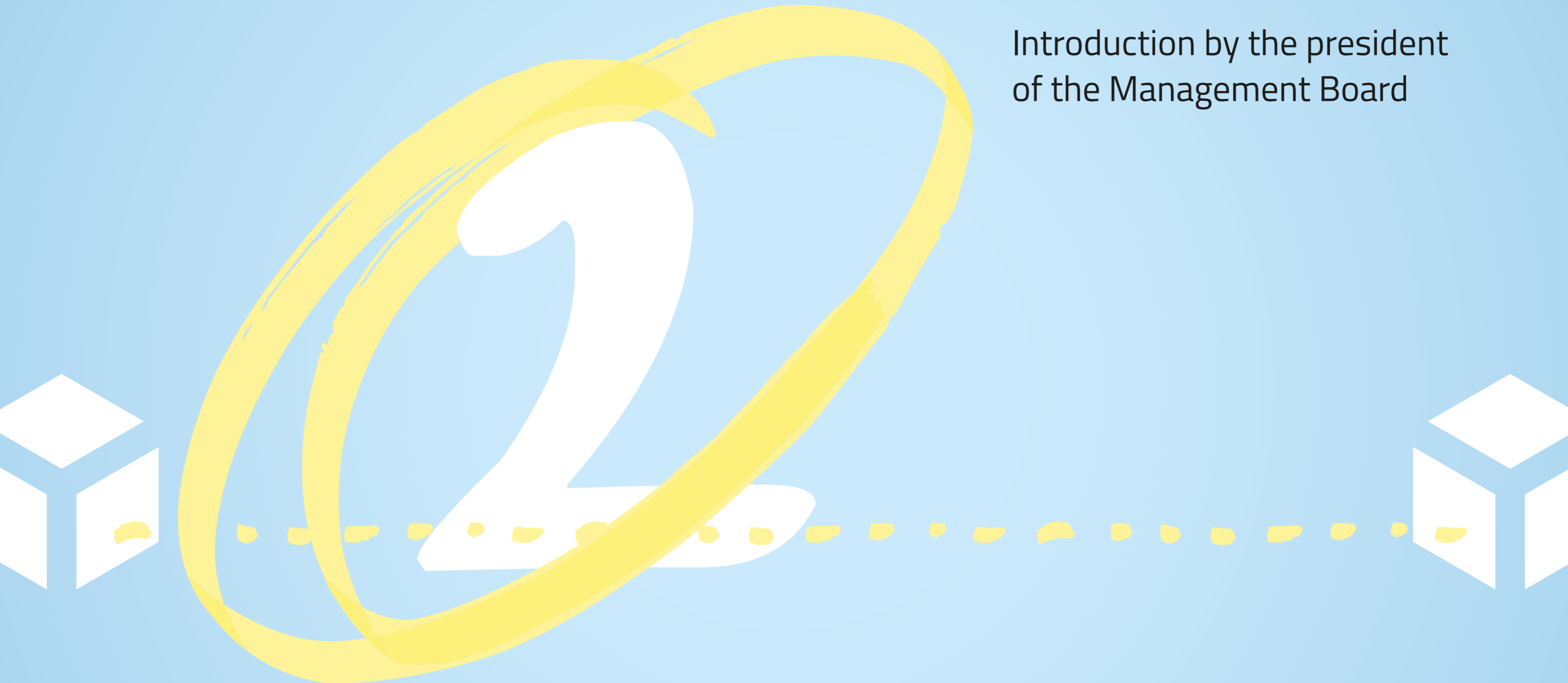
Distribution line lengths according to voltage levels and line types (km)

PL 35 kV, 20 kV, 10 kV	CB 35 kV, 20 kV, 10 kV	LVN - 0,4 kV	LVC - 0,4 kV
23,635,8	18,009,6	69,046,8	29,743,7

On December 31, 2017

PL – power line, CB – cable, LVN – low voltage network, LVC – low voltage cables

Introduction by the president of the Management Board



BY ENABLING LONGTERM SUCCESSFUL
BUSINESS RESULTS, RAISING COMPANY
VALUE AND RATIONAL APPROACH TO
INVESTMENTS, WE EMPOWER
THE DEVELOPMENT
OF BUSINESS DYNAMICS IN OUR
ENVIRONMENT AND CONTRIBUTE
TO THE DEVELOPMENT OF THE ECONOMY.

2

Introduction by the president of the Management Board

Dear readers,

It is my pleasure to present you HEP Group's Sustainability Report for 2017. This report continues to communicate our commitment to sustainable development and corporate social responsibility. We in HEP Group are aware of the size of our group, its strategic importance for the Republic of Croatia as well as of all challenges of contemporary developments of the energy sector. Exactly these reasons encourage us to be strongly focused on responsible management of our impacts on economy, society and the environment. The purpose of this report is to provide you an extensive insight into our business operations, the ways in which we understand and implement responsibility, our goals and efforts to achieve HEP Group sustainability and our stakeholder relations.

HEP Group is one of the largest business organizations in Croatia and strategically important, considering the sector we operate in. We understand and accept the responsibility derived from such a position. By enabling long-term successful business results, raising company value and rational approach to investments, we empower the development of business dynamics in our environment and contribute to the development of the economy. Although our basic task, as a market leader and strategically vital company, is to ensure the long-term stability and security of energy supply, we ambitiously accept other assigned roles. Investing in reconstruction of existing and the construction of new facilities as well as the acquisition of the renewable energy sources create the fundamentals of our generation portfolio. However, we increasingly recognize potential in development of smart grids, advanced measuring systems, electric mobility and other contemporary sustainable energy solutions. Having in mind that we operate as an environmentally intensive industry, we continuously invest in modernization of our facilities, aiming to decrease our impacts, but also develop stakeholder dialogue to jointly ensure the progress of the energy sector. Within stakeholder dialogue, we are especially committed

to the development of low-carbon energy, compliant to the strategic development provisions of the Republic of Croatia.

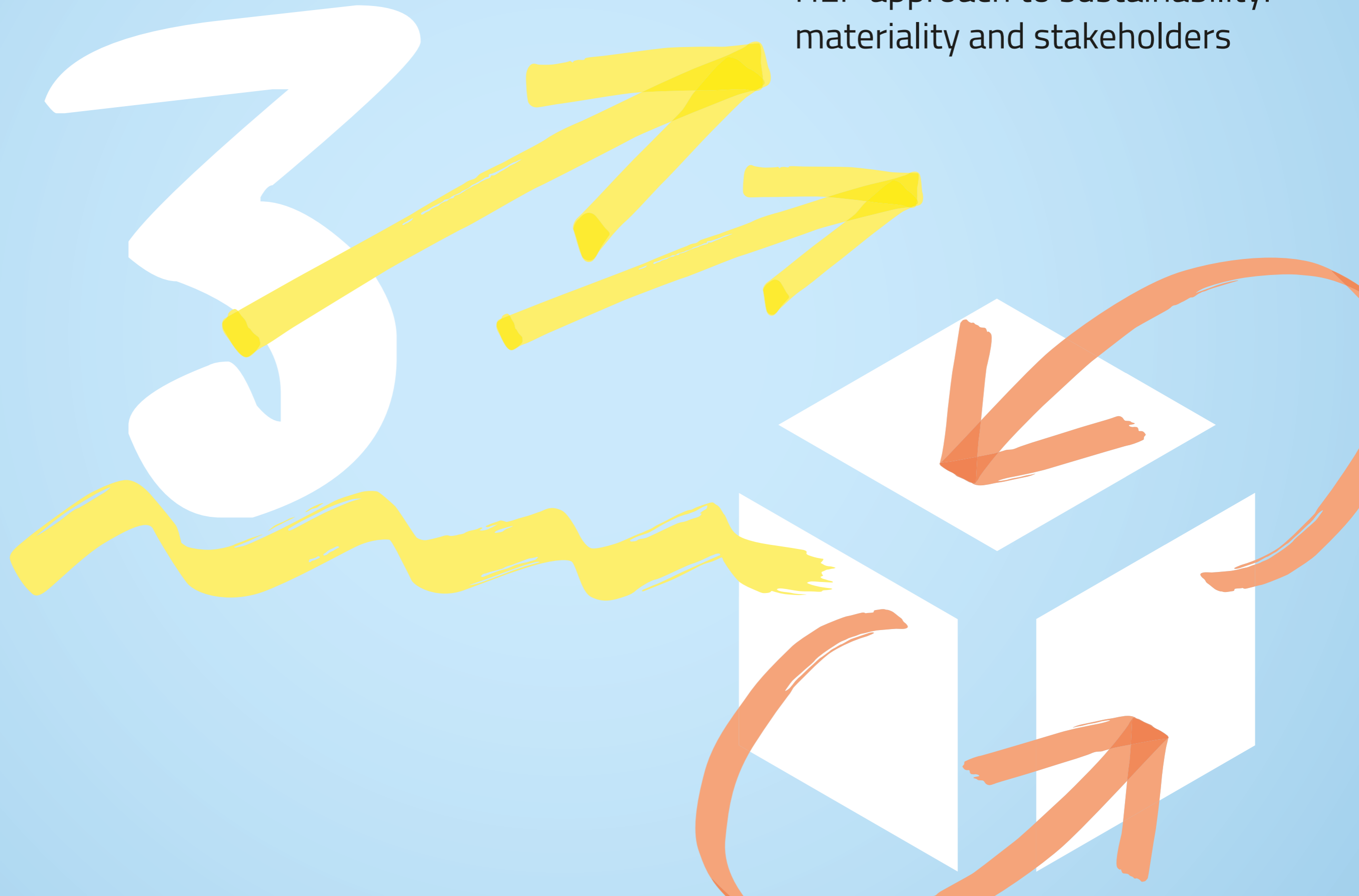
A successful company is created by its people. We constantly invest in the modernization of HEP Group to create synergy among its various parts and to use restructuring to build a system competitive to our European peers. Therefore, investing in workplace, knowledge and skills of our employees is vitally important for us.

We are aware that we operate in a very complex environment and that it becomes increasingly difficult to forecast future, technological and social development, stakeholder behavior and habits and the fast-changing trends. In such circumstances integration of responsibility in business policies is crucial for successful management. In the processes of planning and implementation of business sustainability we do our best to timely recognize our economic, social and environmental risks. Therefore, we have put our material topics in the context of the UN sustainable development goals and it is our intention to monitor our impacts within such framework. In that way, we can enable our stakeholders to participate more actively in our progress in implementing sustainable practices. In this reporting period we intensified stakeholder engagement and enabled the stakeholders to contribute to our responsible practices development by their statements and suggestions. Our views of potential progress in particular segments are described in individual chapters of this report.

This Sustainability Report is the fourth published by HEP Group and was composed according to Global Reporting Initiative Standard. It is a product of diligent work of our colleagues from all sectors of HEP d.d. and connected companies. The report presents an extensive story on our business and substantial insight into our way of considering sustainability and the efforts we invest in achieving it. You can be a part of this story, too. I invite you to read our Sustainability Report and share with us your comments and advice.

Frane Barbarić

HEP approach to sustainability: materiality and stakeholders



OUR STRATEGIC ROLE IS DETERMINED BY
A WIDE SPECTRUM
OF BUSINESS OPERATIONS IN THE ENERGY
SECTOR – DEVELOPMENT, GENERATION,
TRANSMISSION, TRADE, DISTRIBUTION
AND SUPPLY OF ELECTRICITY, HEAT
AND NATURAL GAS.

3

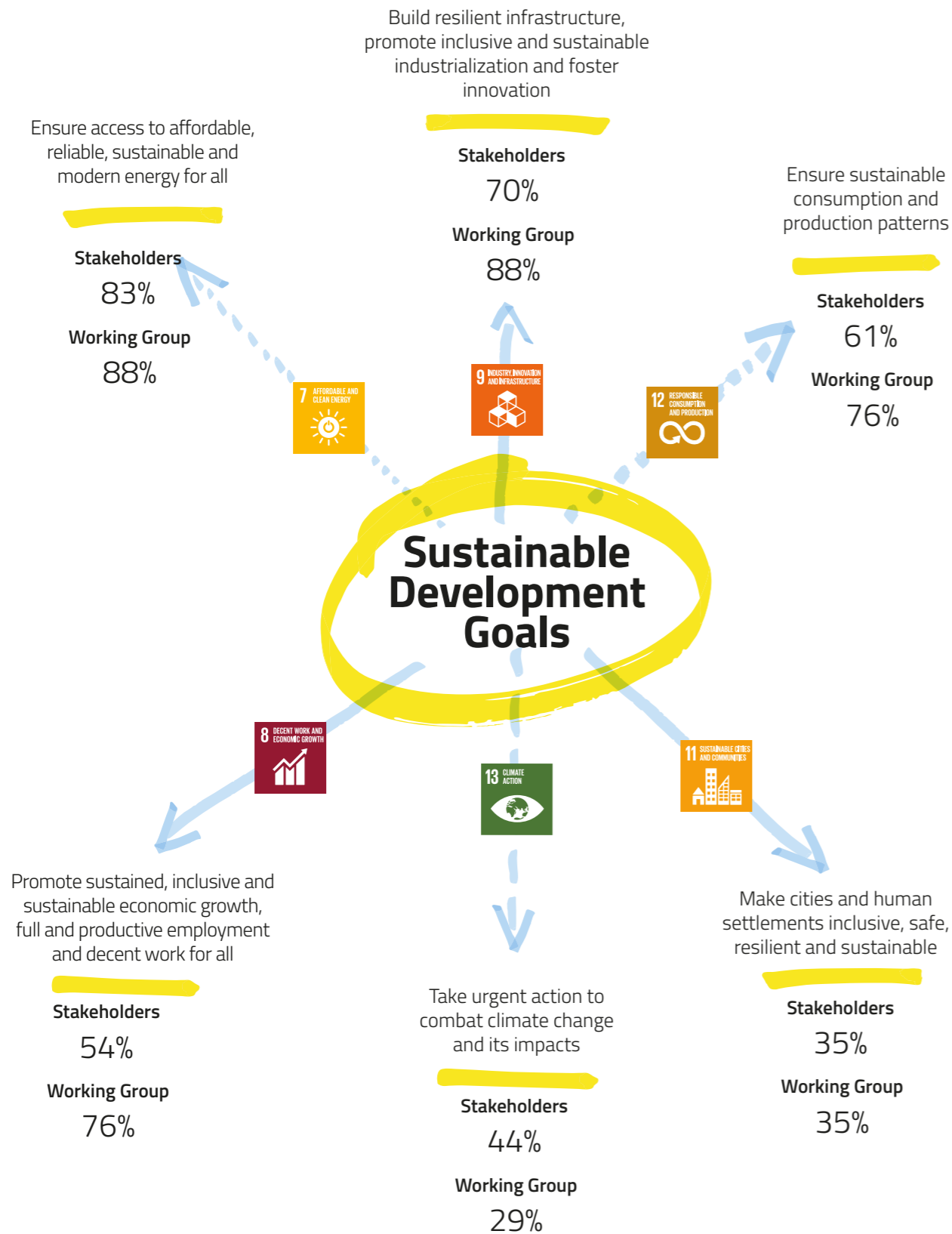
HEP approach to sustainability: materiality and stakeholders

In our fourth reporting cycle, the initial evaluation of material topics showed the consistency of materiality from the previous period. Having in mind the size of HEP Group and the diversity of business segments in which we operate, various companies in the Group have specific approach to managing material topics. In determining materiality, we respected the requests by GRI Standard and continued to monitor sustainable development goals to which HEP Group can contribute by managing our material topics.

Materiality in the context of SDG's

The working group composed of the employees from all sectors of HEP d.d. and daughter companies, participated in evaluating the potential to which HEP Group can contribute to individual SDG's. The evaluation established that HEP Group kept the focus on SDG's recognized last year, with only one insignificant shift due to a better understanding of goals, the role of our Group and the intensity of impacts on society, environment and economy within each goal. Besides self-evaluation, we asked our stakeholders to share their opinion on HEP Group's impacts within SDG's. The engagement process included 71 stakeholders from various sectors and types of business or collaborative relations with HEP Group. Interestingly, both stakeholders and Working Group members assessed equally the SDG's to which HEP Group can contribute within its business operations.

Stakeholders and Working Group recognized that HEP can contribute to the following six SDG's:



HEP Group's development and business plans and realized projects contain contributions to the following objectives within the selected SDG's:

SDG 7	Affordable and clean energy
	Ensure universal access to affordable, reliable and modern energy services
	Increase substantially the share of renewable energy in the global energy mix
	Double the global rate of improvement in energy efficiency
	Enhance international cooperation to facilitate access to clean energy research and technology
	Expand infrastructure and upgrade technology for supplying modern and sustainable energy services
SDG 9	Industry, innovation, infrastructure
	Develop quality, reliable, sustainable and resilient infrastructure
	Promote inclusive and sustainable industrialization
	Upgrade infrastructure and retrofit industries to make them sustainable
	Enhance scientific research, upgrade the technological capabilities
SDG 12	Responsible consumption and production
	Achieve the sustainable management and efficient use of natural resources
	Achieve the environmentally sound management of chemicals and all wastes throughout their life cycle
	Substantially reduce waste generation through prevention, reduction, recycling and reuse
	Adopt sustainable practices and integrate sustainability information into reporting cycle
	Promote public procurement practices that are sustainable
SDG 8	Decent work and economic growth
	Achieve higher levels of economic productivity through diversification, technological upgrading and innovation
	Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labor-intensive sectors
	Protect labor rights and promote safe and secure working environments for all workers
SDG 13	Climate action
	Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters
	Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning

From the selected SDG's, five of them were listed in the previous reporting period. We asked our stakeholders to evaluate the level of contribution to the goals of HEP Group. Ranging from one to ten, the stakeholders evaluated the HEP Group efforts:

- > Ensure access to affordable, reliable, sustainable and modern energy for all (6.6)
- > Build resilient infrastructure, promote sustainable industrialization and foster innovation (6)
- > Ensure sustainable consumption and production patterns (5.9)
- > Promote inclusive and sustainable economic growth, employment and decent work for all (5.9)
- > Take urgent action to combat climate change and its impacts (5.3)

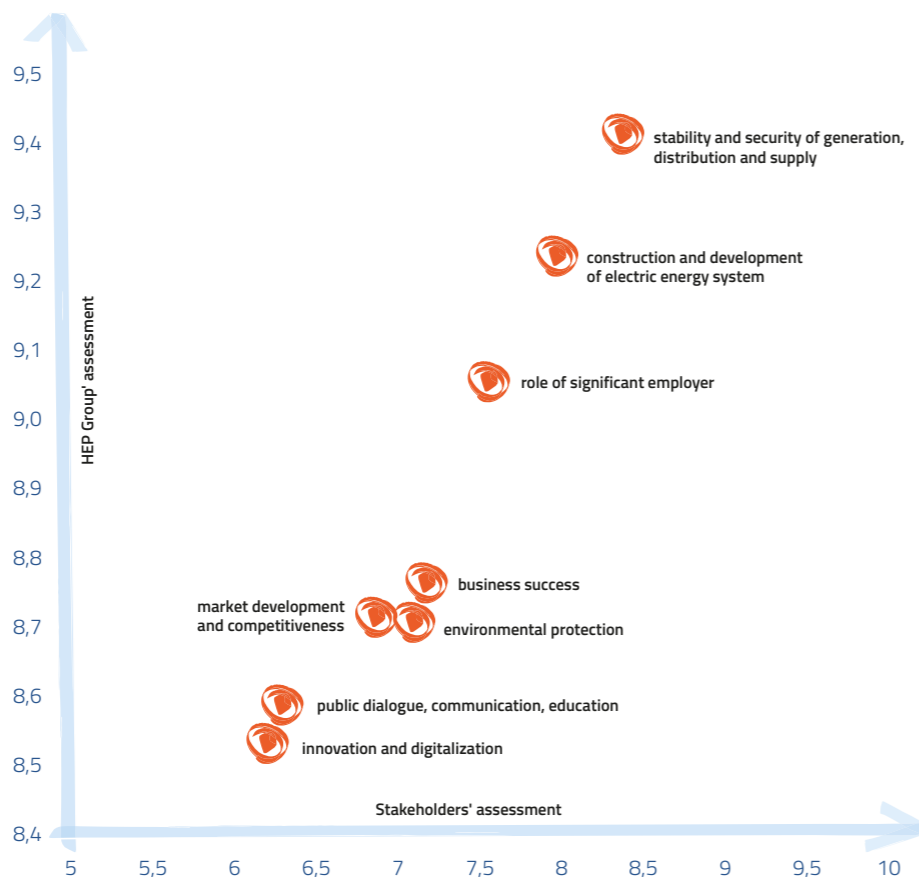
As evident from the evaluation, our stakeholders think that HEP Group has a room for improvement of our practices in contributing to the realization of the sustainable development goals.

Material topics assessment

Having in mind industry specific characteristics and continued trends in our environment, material topics of HEP Group have not changed compared to the previous reporting period. Comparative indicators of materiality, i.e. stakeholders' view of the importance of material impacts and the outlook by the organization are presented in the materiality matrix. HEP Group is one of the largest and the most important business subjects in the Republic of Croatia. Our strategic role is determined by a wide spectrum of business operations in the energy sector – development, generation, transmission, trade, distribution and supply of electricity, heat and natural gas. In all these sectors we recognize numerous impacts on economy, society and environment. In order to present them in a less complex way, we clustered them in eight major areas.

Materiality matrix is a graphic presentation of the relation of opinions on HEP Group's impacts on society, economy and environment in the Republic of Croatia. The matrix contains assessments by 71 engaged stakeholders and the members of the Working Group. The matrix shows that both external stakeholders and the Working Group assessed the material topics according to the same priorities. Working Group members assigned somewhat higher grades to material topics. This indicates that HEP Group has developed a more acute awareness of the of the group impacts than our stakeholders.

Material topics of HEP Group



Material topics

Ensure stability and security of generation, distribution and supply of energy:

development of energy sector in Croatia and energy strategy; capital projects management; participation in creating energy topics, development of experts, corporate governance, knowledge management, corporate and IT security; supply stability, collaboration with the academic sector, fees for power plants spatial use

Enable sustainable construction and development of the energy sector:

strengthen own generation, national strategies and plans; local employment and partnerships, new competencies; development of local projects; community investment, generator of Croatian economy

To be a responsible, sustainable and quality employer (significant employer):

large influence on labor market, attractive partner: responsible workplace practice, investment in employee education, health and safety at work; desirable employer, investment in science and education; significant employer in local communities, high expertise

To be profitable and lead successful business:

long-term investment planning, dynamic changes in regulations, purchase prices; responsible corporate governance, using group synergy, credit rating; strategic importance of HEP Group for the Republic of Croatia; sales prices of energy

Invest in sustainable environmental protection and responsible management of environmental impacts:

using the best available techniques, adaptation to climate change, changes in environmental regulations; revitalization and reconstruction, construction of new generation plants, mix of generation sources, RES development, e-mobility, contribution to the development of the environmental protection; circular economy, responsible consumption management, energy efficiency; environmental protection costs (fees and investments), carbon emissions trading, green procurement, waste management

Realize continuous market growth and maintain competitiveness on domestic and regional markets:

market liberalization, customer trust, new products, strengthening of regional presence; quality and process management, customer relations management, adapting to new trends; pricing policies, energy poverty, purchase power of citizens

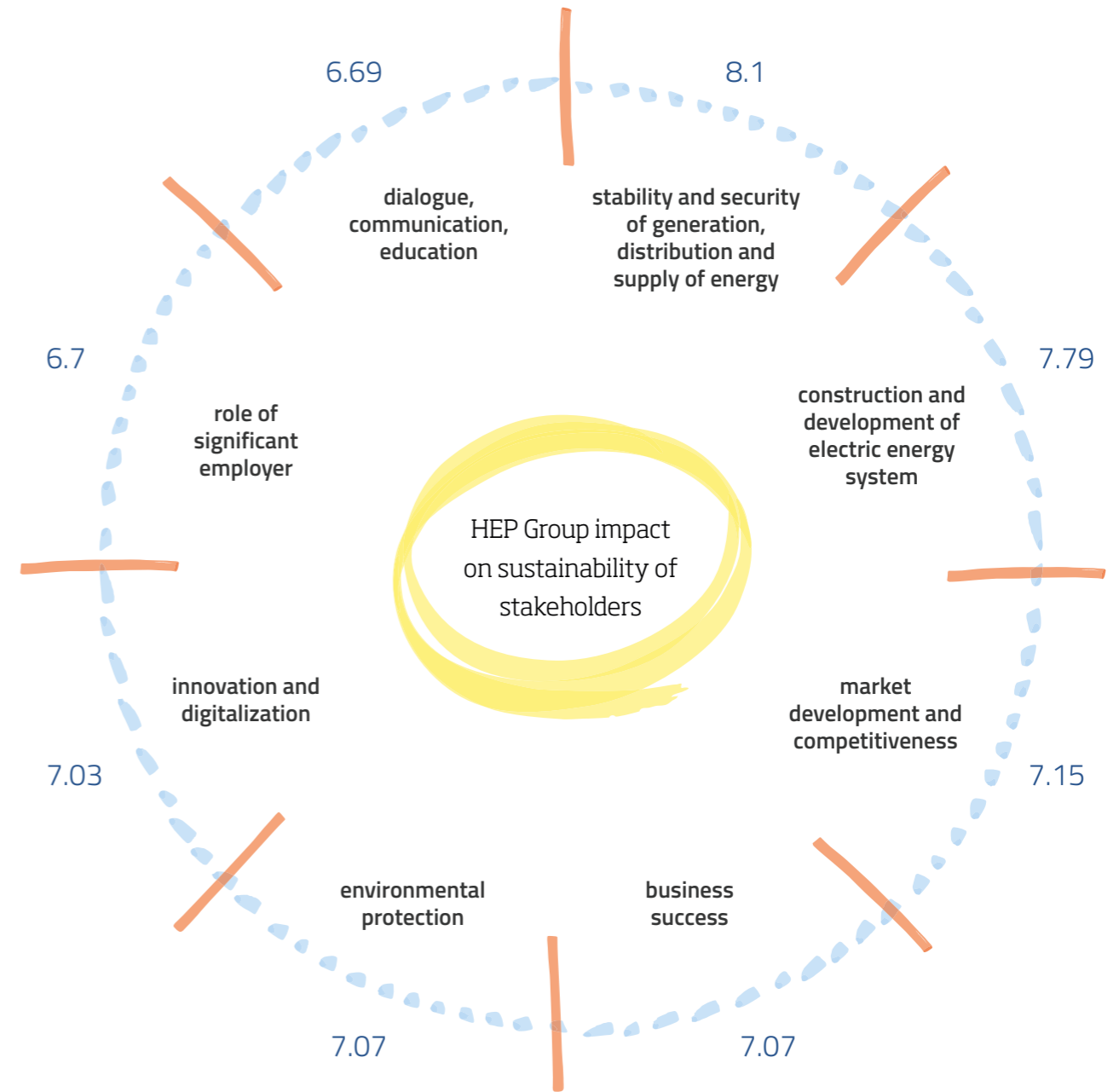
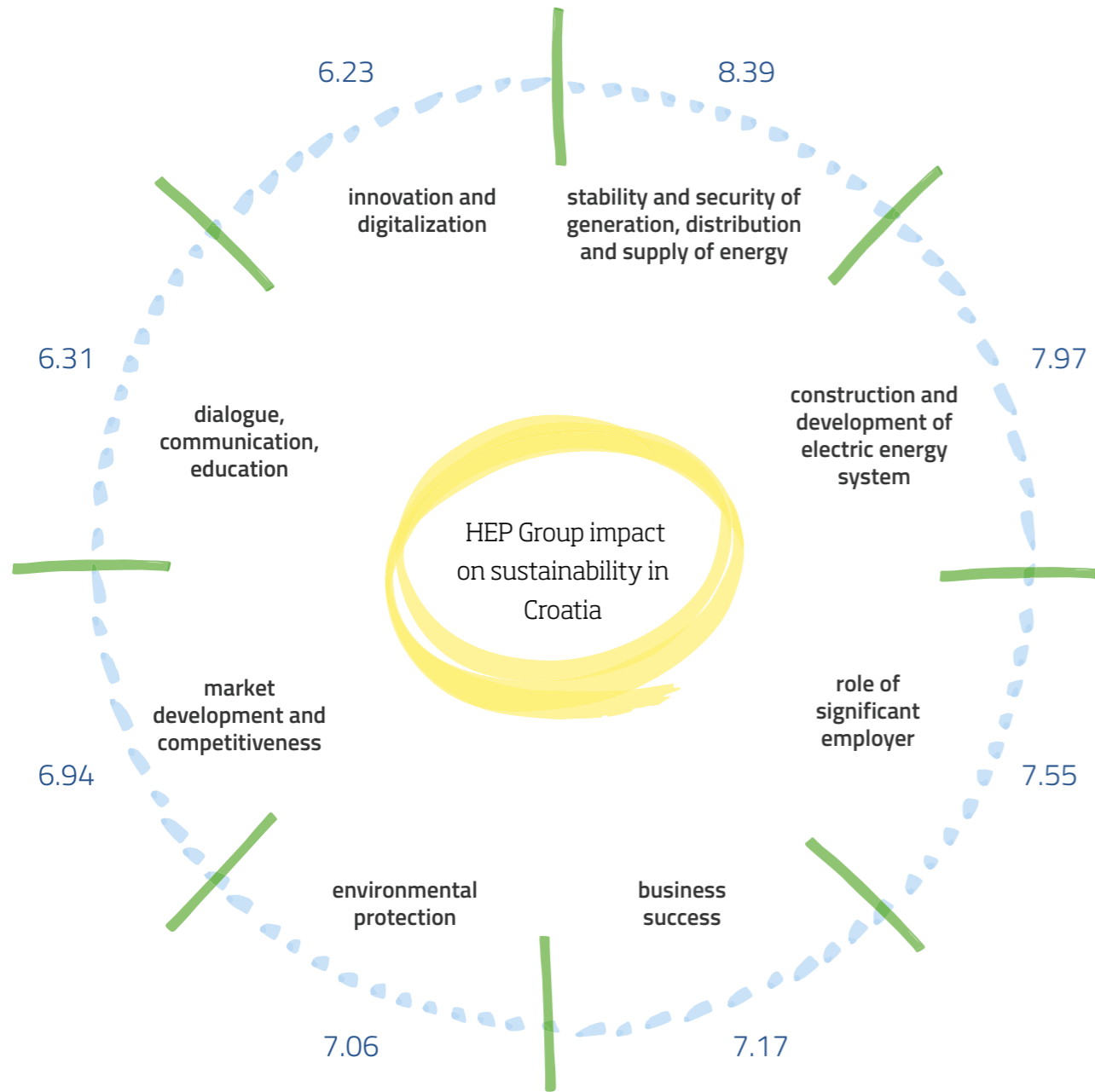
Invest in innovation and use advantages of digital transition:

new technologies and solutions, quality customer relations, smart grids; talent development, development of entrepreneurial and innovation culture, investments in technology; partnerships with scientific institutions, improvement of the quality of life, prosumerism

Realize stakeholder dialogue, communicate transparently and educate public on the topics vital to HEP Group operations:

partnerships with institutions and associations, responsible marketing communication, fair market competition; corporate culture, employee engagement; partnerships with local communities, publishing data on impacts, stakeholder dialogue on impacts, participation in policy creation

According to our stakeholders, HEP Group impacts on society, economy and environment in the Republic of Croatia and their own business operations are very similar. However, stakeholders prioritized material topics somewhat differently, as presented in the graphs.



Stakeholders and members of the Working Group evaluated the success of the present efforts and investments of HEP Group in responsible impact management equally – with the average grade of 3.2 (out of 5). The highest evaluated areas are stability and security and the role of significant employer, while the lowest ranked are achievements in innovation and digitalization and dialogue, communication and education of public.

Materiality matrix supported us in determining aspects of the report. The following chapters present data according to all relevant indicators within the aspects. The intention was to present some efforts in advancing sustainability practices through HEP Group activities in 2017 which are described in subsequent chapters.

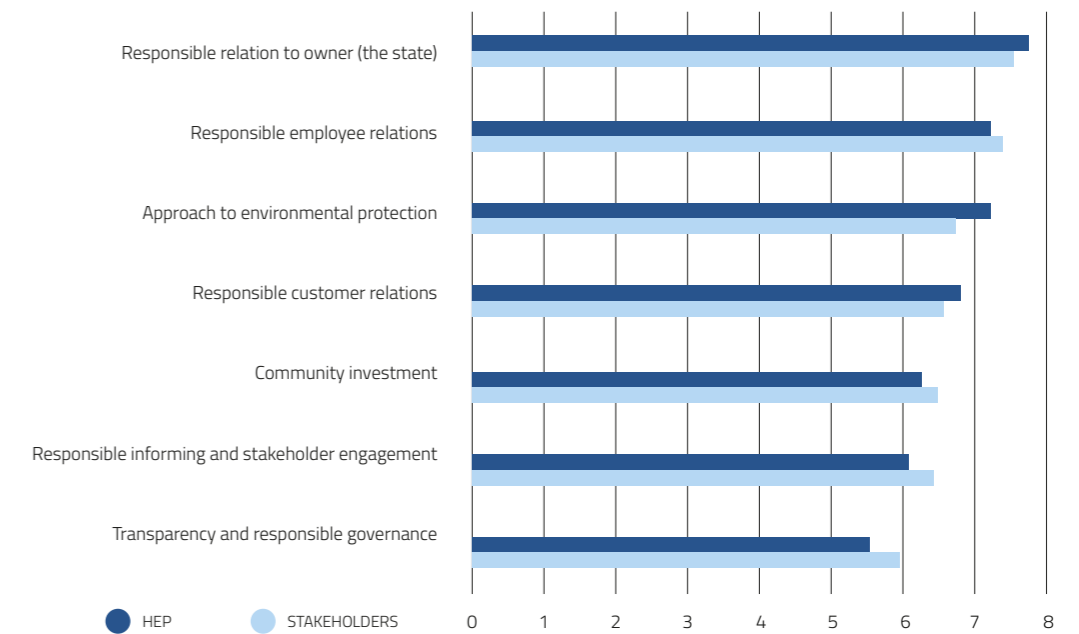
Stakeholder engagement

HEP Group continuously conducts assessment and engagement of significant stakeholders, within the regular business activities of companies in the Group. We consider our stakeholders all groups who are affected by HEP Group business activities as well as the groups who have the characteristics of legitimacy, power and urgency related to HEP Group operations. Stakeholder engagement was conducted in the reporting period in various ways – by surveys assessing stakeholders’ satisfaction with the business relations with HEP Group and other topics relevant for the stakeholders, especially in market relations. Besides surveys, HEP Group companies requested stakeholders’ opinions on business operations, trends and development relevant for stakeholders in various formats of gatherings and events organized by HEP or external organizations as well as special meetings. Finally, we included 71 stakeholders from various sectors in our online survey on sustainable development goals and material topics of HEP Group. The majority of 71 participants were the representatives of state administration or organizations, customers and buyers, scientific and higher education institutions and suppliers. The survey also included the representatives of the media, local and regional administration and self-administration, civil sector organizations, interest or expert associations and experts in environmental protection.

Besides questions on material topics and HEP Group impacts and SDG’s presented in the previous chapters, stakeholders evaluated the level of responsibility of HEP Group towards key stakeholders, environment, local community, stakeholder engagement and transparency of governance. Again, the evaluations by stakeholders and the Working Group were harmonized (on the scale of 1 to 10). We are aware that we can make progress in stakeholder engagement, which will be one of our objectives in the next reporting period.

Stakeholders expressed various opinions on the areas in which HEP Group may advance its responsible management of impacts: HEP should adapt faster to changes and future challenges; compose long-term strategy; invest in generation facilities; be bolder and faster in introducing contemporary innovative solutions in generation, distribution and supply as well as in energy management. Furthermore, stakeholders think that HEP should invest more in the sustainability and productivity of the group, corporate governance, modernization of the organization, stakeholder relations, customer relations, transparency, and address the climate change challenges. Members of the Working Group recognized similar potentials for improvements.

Nine percent of stakeholders read entire Sustainability Report of HEP Group, 27 percent read parts of their interest, while 13 percent browsed through the report. Somewhat less than a third of our stakeholders have not read our Sustainability Report, but are aware of it, while the rest of stakeholders have not heard about it. These results are better than last year, and we can expect increasing readership in the next reporting period. Stakeholders who read or browsed HEP Sustainability Report show over the average satisfaction (6.8 of 10). Those who read the entire report evaluated its quality with the grade 8.7.



HEP Group stakeholders

Market:

commercial customers, residential customers, competition, business partners, suppliers, energy exchange and emissions trading exchange

Capital markets:

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

Civil sector:

consumer protection associations, environmental NGOs

Associations (international and national):

expert associations, interest associations, Croatian Chamber of Economy, Croatian Employers' Association

Media:

national, local, expert

State bodies:

Croatian Government, Ministry of Environmental Protection and Energy, Ministry of State Property, Ministry of Finance, Ministry of Economy, Entrepreneurship and Crafts, Ministry of Construction and Physical Planning, Environmental Protection and Energy Efficiency Fund, Croatian Environment and Nature Agency, Croatian Water Management Company, Center for Monitoring Business Activities in the Energy Sector and Investments, Croatian Parliament

Regulatory bodies:

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

Shareholders representatives (General Assembly),

Supervisory Board

Local communities:

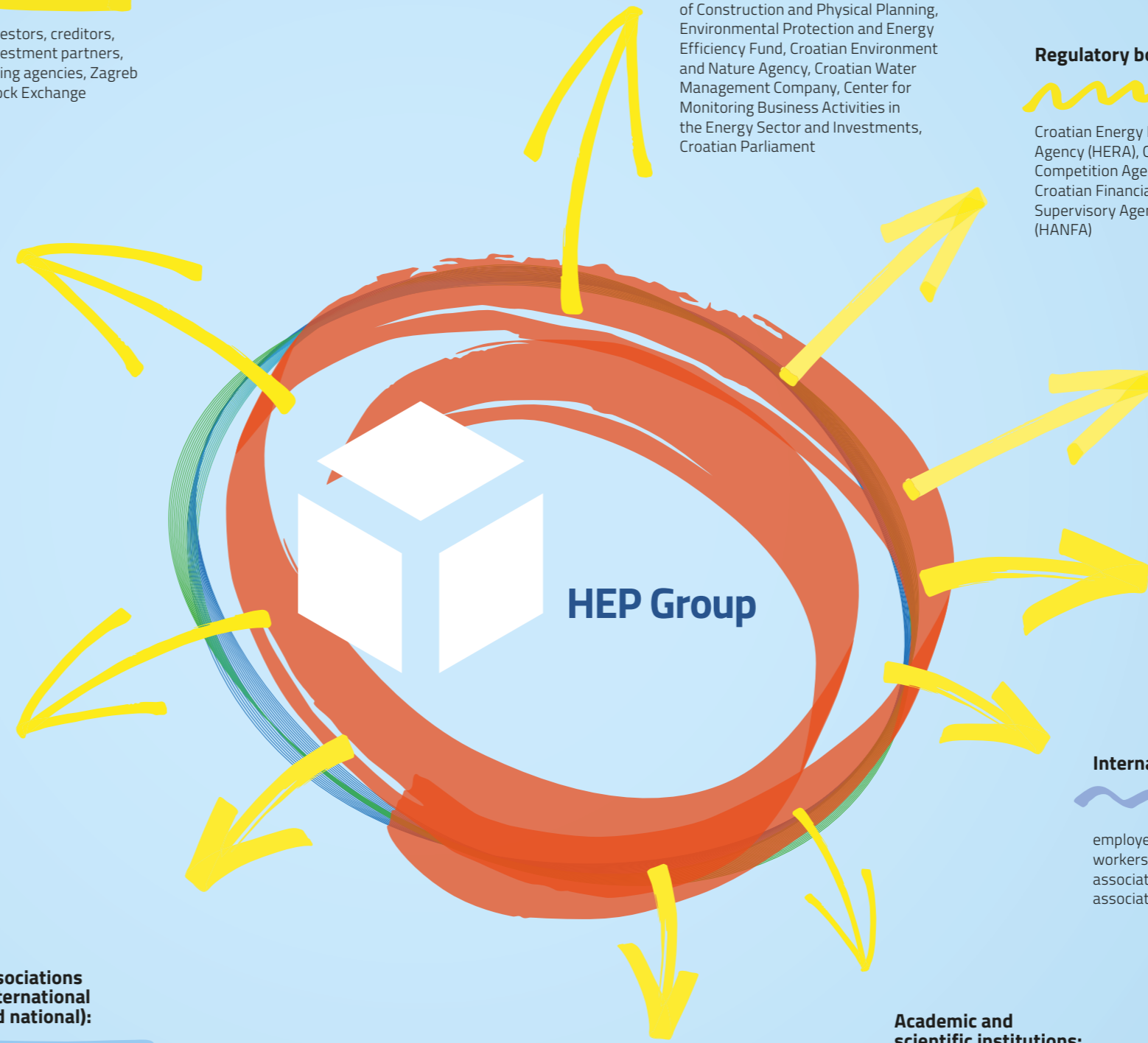
counties, cities, municipalities

Internal stakeholders:

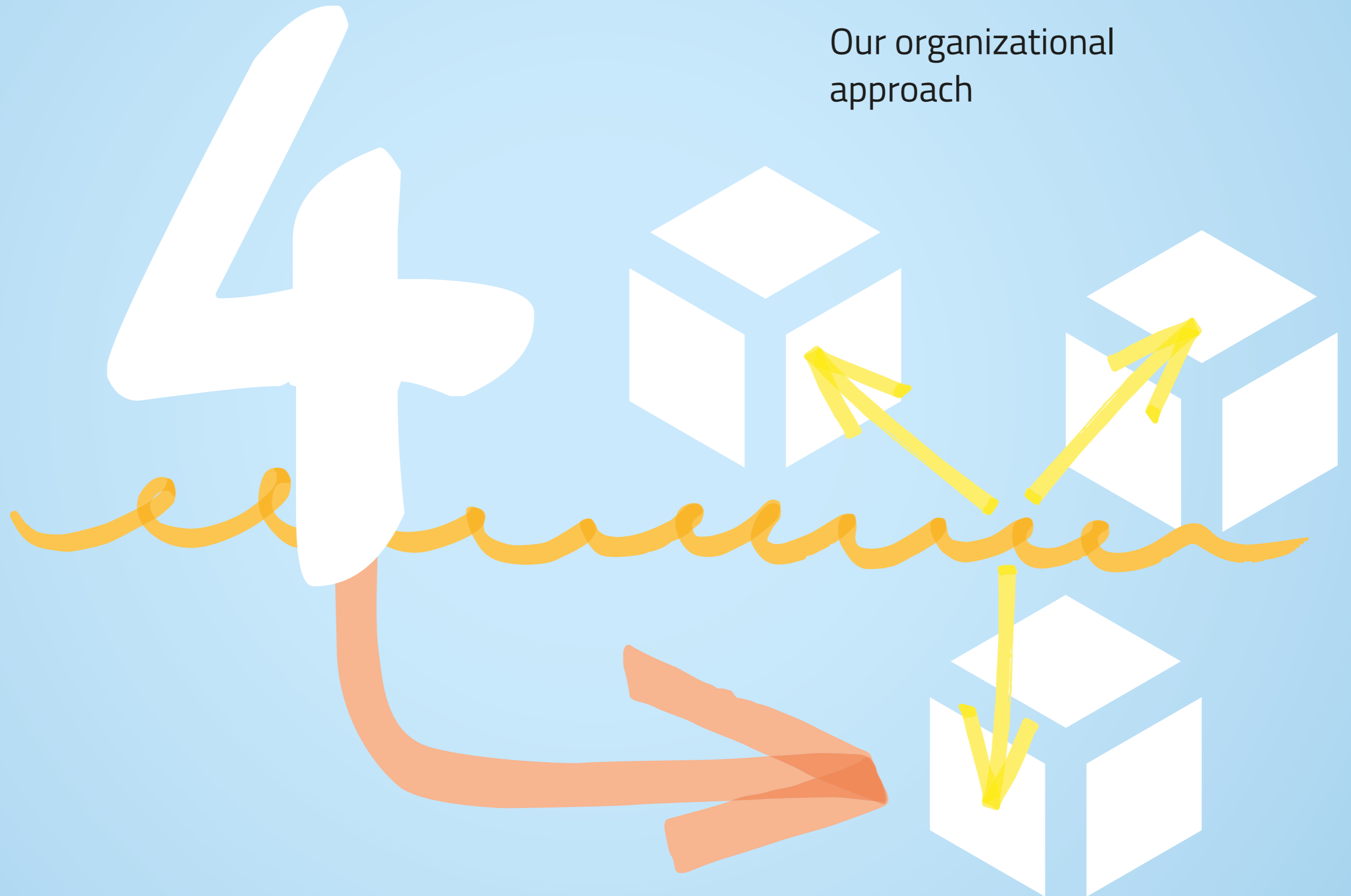
employees, managers, unions, workers' councils, HEP war veteran association, HEP pensioners association

Academic and scientific institutions:

universities, scientific institutes, secondary schools



Our organizational approach



OUR STRATEGIC GOAL IS

SUSTAINABLE AND

FLEXIBLE ENERGY PORTFOLIO:

INVESTING IN HYDROPOWER PLANTS AND

OTHER RENEWABLE ENERGY SOURCES,

FOCUSING ON THE CONSTRUCTION OF

HIGHLY EFFICIENT CO-GENERATION

PROJECTS AND OWNERSHIP OF DIVERSE

ELECTRICITY SOURCES.

4

Our organizational approach

Mission

Secure and quality supply of energy to customers, with a high level of social responsibility.

Vision

HEP Group as a strong regional, modern and socially responsible company, recognized as an example of efficient energy generation and supply to customers.

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

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.

Corporate governance

HEP Group conducts its business in compliance with the law and ethical norms, based on the principles of sustainable development and social responsibility. In 2002, the company adopted the Code of Ethics – The Principles of Responsible Behavior in HEP. The Code was amended in 2010, ensuring its compliance with the requirements by the Anti-corruption program for state-owned companies. All HEP companies are signatories of the statement by which they accept the Code of Ethics which provides ethical guidelines of business subjects in the Croatian economy, passed by the Croatian Chamber of Economy in 2005.

As the corporate bond issuer, the company also applies provisions of Corporate Governance Code by Zagreb Stock Exchange and Croatian Financial Services Supervisory Agency.

Management structure of HEP d.d. in 2017

General Assembly		Management	
Tomislav Panenić	Member from March 4, 2016 until January 25, 2017	Perica Jukić	President from September 12, 2014 until December 31, 2017
Zdravko Marić	Member from January 16, 2017 until February 14, 2018	Zvonko Ercegovic	Member from February 23, 2012 until December 31, 2017
Tomislav Ćorić	Member since February 15, 2018	Tomislav Rosandić	Member from January 2, 2015 until December 31, 2017
Supervisory Board		Saša Dujmić	Member from December 4, 2014 until December 31, 2017
Nikola Bruketa	President since February 23, 2012 until December 6, 2017	Frane Barbarić	President since January 1, 2018
Goran Granić	President since January 1, 2018	Nikola Rukavina	Member since January 1, 2018
Žarko Primorac	Member from February 23, 2012 until December 6, 2017	Marko Ćosić	Member since January 1, 2018
Ivo Uglešić	Member from February 23, 2012 until December 6, 2017	Petar Sprčić	Member since January 1, 2018
Igor Džajić	Member from September 19, 2012 until December 6, 2017	Tomislav Šambić	Member since January 1, 2018
Mirko Žužić	Member from September 19, 2012 until December 6, 2017	Saša Dujmić	Member since January 1, 2018
Juraj Bukša	Member from June 5, 2014 until December 6, 2017		
Dubravka Kolundžić	Member from June 1, 2015 until January 11, 2018		
Goran Granić	Member from December 6, 2017, until December 31, 2017		
Marko Primorac	Member since December 6, 2017		
Jelena Zrinski Berger	Member since December 6, 2017		
Višnja Komnenić	Member since January 11, 2018		

Strategic goals and risks

Sustainable and flexible energy portfolio: by investing in hydropower plants and other renewable energy sources, focusing on the construction of highly efficient co-generation projects; ownership of diverse electricity sources which become operational depending on the market availability and the prices of energy fuels thus providing sustainability and flexibility.

Optimization and improvement of business processes: by continuously upgrading employee competencies and innovativeness, efficiently managing knowledge at corporate level and optimizing business processes.

Market flexibility: by defining and creating new products and services across wholesale and retail market segments focusing on retaining the current share of the Croatian market and increasing the share in the regional markets as well as implementing smart networks with an emphasis on network development, automation, smart network control and operation.

Cooperation with stakeholders: by timely and active participation in the development and the adoption of EU and national legal instruments, and in the process of creating new energy market.

Concerning the diversification of business segments, industry type, strategic importance and territorial presence in all parts of Croatia, HEP Group perceives numerous external and internal business risks. Most of these risks are managed within regular corporate governance processes. According to their origin, we differentiate several groups and types of risks. On the **market**, we encounter material risks relating market conditions, liberalization, quality of service, marketing approach and other market relations. Market risks also encompass prices of fuel for energy generation and the purchase price of energy. **Legal risks** include regulatory and other requests, potential and current law suits. Most of risks in the legal sphere relate to adaptations to EU legislation as well as changes of laws and regulations in environmental protection. **Financial risks** pertain to ensuring resources to finance the planned investments and establishing partnerships for capital investments. Financial risks also include regular financing regular business operations as well as foreign currency exposure and indebtedness. The most important **technological-operational risks** concern the management of reconstruction and revitalization and health and safety at work. Operational risks include the dependency on hydrological conditions and water flows, having in mind that HEP Group has more than 50 percent of installed generation capacity in hydropower plants. Technological risks pertain to managing a very complex IT infrastructure. Finally, **organizational risks** encompass processes of organizational change and restructuring, labor stability and ensuring succession of knowledge and experience in HEP Group.

As all risks have their other side – opportunities, those are exactly the areas in which we can strengthen our professional capabilities and use our change potential to introduce improvements and create a more sustainable business. We will focus on creating stronger links between business goals and risks with the sustainable development goals in the next reporting period.

Responsibility and ethics

Code of Ethics of HEP Group defines the principles of business behavior and underlines the importance of consistent monitoring and implementation of laws and regulations in the organization of our business operations. The Code stipulates the implementation of professional and business norms and standards and respect of ethical principles. It also underlines professionalism, expertise, conscience, objectivity, independence, clarity, impartiality and responsibility at work. The Code also defines conflict of interest in the business relations with HEP. It invokes the protection of human rights, development of transparent relations with stakeholders and condemns any kind of discrimination.

All subsidiaries have their representatives in the HEP Group Ethics Committee. Ethics commissioners receive complaints about unethical and potential corruptive conduct by employees, examine the correctness of the complaints, hold the records on the received complaints, monitor the implementation of the Code of Ethics in their company. Commissioners' duties are also to promote ethical behavior among employees and in the relations with customers and advise employees on ethical conduct. Ethics commissioners and Ethics Committee always require the accused party to provide their statement accompanied by relevant documentation. If possible, they talk with the both parties to obtain a deeper insight into the subject and form a more informed opinion. Cooperation with all organizational units and employees is evaluated as exceptional. Feedback is collected from participants in ethical complaint procedures on their opinion on the procedure, once the case is closed.

Structure of ethical complaints in 2017

	Total	Justified	Unjustified
Number of received complaints	163	73	90
Number of solved complaints	163	73	90
- number of anonymous complaints	7	2	5
- number of non-anonymous complaints	156	71	85
Number of non-anonymous complaints filed by HEP employees	0	0	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	156	71	85
Number of complaints by type:			
labor relations	3	1	2
corruption and bribe	0	0	0
conflict of interest	3	3	0
public procurement	1	0	1
customer relations	20	14	6
calculation and bills	67	25	42
connection to LV network	30	16	14
unauthorized consumption	6	2	4
other	33	12	21
Total	163	73	90

The number of filed complaints in 2017 decreased by 18 percent compared to the previous year. The share of unjustified complaints in the total number of complaints has also dropped.

Ethics commissioners compose written reports on the conducted procedure of validation of the complaint and inform the CEO, who examines the report and, if necessary, initiates the stipulated process, informs the ethics commissioner and supplies the reply to the complaint.

Depending on the complaint content, commissioners may proceed some complaints to the relevant organizational units of HEP d.d. or subsidiaries, such as compliance officer, Internal Audit and Risk Assessment Sector, Legal Affairs, Customer Relations or other authorized persons. Ethics commissioners are in constant communication with the managers whom they advise on ethical conduct and management.

Right to access to information

Information Officer collects, evaluates and responds to about fifty requests a year (with an increasing trend), concerning business relations with HEP, company's development projects and procurement procedures. Each request is, depending on the topic, forwarded to the relevant units and persons authorized to provide feedback. Requests are most frequently filed by private citizens, companies, non-governmental organizations and media representatives. In 2017 there were no legal actions related to the Right to Access to Information Act.

During 2017, there were 59 requests filed related to access to information, out of which 40 were resolved within the deadlines, while 19 cases were responded to after the prescribed 15 days deadline, due to complexity of requested data or remote units. There was one registered case of abuse of the right to access to information, in which one person filed more than 50 individual requests, which were joint into four items. In 15 cases the requests were refused: three grounded in business confidentiality, five due to protection of personal information and because the data requested were not defined as information by the law. Seven requests were denied because of the abuse of access to information.

HEP Group memberships

HEP d.d. and HEP Group companies are collective members, while numerous experts are individual members of many international organizations, institutions and associations:

- > EURELECTRIC (Union of the Electricity Industry)
- > CIGRE (International Council on Large Electric Systems and CIGRE National Committee of Croatia)
- > ICOLD (International Commission of Large Dams)
- > CIRED (Congress International des Réseaux Electriques de Distribution)
- > LWA (Live Working Association)
- > EFET (European Federation of Energy Traders),
- > IAEA (International Atomic Energy Agency),
- > ENS (European Nuclear Society)
- > UNICHAL (International Union of Heat Distributors),
- > EUROHEAT & POWER (International organization focused on co-generations, long-distance heating and cooling)
- > IIA GLOBAL (Institute of Internal Auditors, Florida, USA), through HIIR – Institute of Internal Auditors of Croatia)
- > ISACA (Information Systems Audit and Control Association); via Croatian subsidiary ISACA Chapter Croatia
- > ECLA (European Company Lawyers Association)
- > CEEP (Central European Energy Partners)
- > Croatian Academy of Engineering
- > CROMA – Croatian Managers' and Entrepreneurs' Association
- > Electrotechnical Society
- > Croatian-Austrian Chamber of Commerce
- > Croatian Chamber of Economy
- > Croatian Nuclear Society
- > Croatian Water Pollution Control Society
- > Croatian Business Council for Sustainable Development
- > Croatia Green Building Council
- > Croatian Gas Association
- > MIPRO Croatian Society
- > Croatian Public Relations Association
- > Croatian Air Pollution Prevention Association
- > Croatian Standards Institute
- > Croatian Employers' Association
- > German-Croatian Chamber of Industry and Trade
- > Croatian Energy Alliance
- > Croatian Association of Experts in Environmental and Nature Protection



Diversity as strength:
our people

HEP WAS LISTED AMONG
THE MOST ATTRACTIVE
 EMPLOYERS IN 2017, ACCORDING
 TO THE SURVEY BY MOJPOSAD PORTAL
 CONDUCTED DURING 2016 AND 2017
 HEP WAS VOTED THE THIRD MOST
 POPULAR EMPLOYER BY ALL RESPONDENTS
 AND THE SECOND AMONG MEN.

5

Diversity as strength: our people

Long-term Strategy of HR Development of HEP Group for 2017-2030 defines strategic goals, priorities and incentives for development of human resources and employment in HEP Group.

The Strategy encompasses processes of human resources management by optimal definition of needs for new employees, dynamized selection process with the purpose of selecting the best candidates and the necessity of life-long education to develop specialist knowledge and skills. The Strategy contains goals: increase of employee satisfaction, development and implementation of employee efficiency system, increase of motivation by introducing award by merit system. Employee satisfaction monitoring was introduced in 2017 and will be conducted on a yearly basis.

All members of HEP Group management (members of management boards and executive directors) are local managers from various Croatian regions.

Work in HEP and retirement

Collective Agreement of HEP has been applied from July 1, 2016 until December 31, 2017. By the end of 2017, a new Collective Agreement was signed for the period of January 1, 2018 until December 31, 2019. Collective Agreement was signed by two representative unions (Croatian Electro-economic Union – HES and Independent Union of HEP Workers – NSRHEP) and the Employer Association of HEP Group – comprised of representatives of all HEP subsidiaries. Collective Agreement encompasses all employees of companies within HEP Group. All employees, regardless of labor status (permanent or temporary) realize the same rights from the Collective Agreement.

In addition, persons employed part-time have the following rights secured by the Collective Agreement:

- > full amount for travel expenses
- > loyalty bonus (under conditions provided by the Collective Agreement)
- > aid in extraordinary circumstances (under conditions provided by the Collective Agreement)
- > full amount of holiday bonus
- > full amount of Christmas and Easter bonus
- > full amount of seniority bonus
- > full amount of length of employment bonus
- > full amount of lunch bonus

Part-time workers enjoy all rights proportional to the time they are employed with HEP.

Besides the stipulated legal deadlines in which the unions should be timely informed on significant changes in business operations, Collective Agreement stipulates that the company should timely, at least once bi-monthly inform unions on the restructuring plans and privatization of the company and their impact on economic and social conditions of employees.

Benefits for employees and managers

	Employees	Managers
Success bonus	NO (except HEP-Opkrba employees)	NO
Life or additional pension insurance	Voluntary closed pension fund for HEP Group employees	
Additional health insurance	YES	YES
Personal aid in extraordinary situations (e.g. parental leave, birth, death in the family)	YES (one-off aid for birth of a child, extraordinary aid in the case of the death of employee and family members, aid during parental leave, aid during long-term sick leave)	
Additional personal costs (e.g. ICT, vehicle)	Some employees according to the special decision by the authorized person	YES (mobile phone and car use, depending on the rank)
Housing benefits (flats, loans)	Special credit packages contracted with the banks for the employees of HEP Group	

During 2016 HEP Group subsidiaries passed the decision on redundancy incentives. Employees who reached the age of 63.5 were enabled to use retirement incentives and to initiate labor contract termination. Employees who fulfill conditions may request the labor contract termination. Succession planning has become very important, since there are forecasts that 3,349 workers or 39.8 percent of entire workforce will retire until 2025.

Retirement plan in HEP Group

Year	Number
2018	59
2019	56
2020	76
2021	109
2021	197
Total	497

HEP employees may participate in the closed pension fund established in 2006. More than 4,700 employees have opted for the advantages of pension savings, while more than 1,400 of them already receive pensions from this source. When employees sign in, HEP pays the initial amount of 400 HRK, while the members' payments are subsidized. The fund is owned by the members, the assets can be inherited and are exempt of taxes, while the collected savings yield profits even if the payments are discontinued.

We show solidarity and social sensitivity towards the children of deceased employees of HEP, by ensuring continuous monthly aid from pre-elementary education until they complete their education or the age of 26.



HEP among the three most attractive employers

HEP was listed among the most attractive employers in 2017, according to the survey by MojPosao portal conducted during 2016 and 2017 among 17,000 respondents. HEP was voted the third most popular employer by all respondents and the second among men.

The survey indicated that the salary is not the crucial factor of employer attractiveness in Croatia, but is preceded by the security of employment, harmony in workplace and promotion opportunities, followed by employer' corporate social responsibility.

Salary amount and other material benefits were the key factor to only 13 percent of respondents.

Diversity and equal opportunities

Data on entry gross salaries in HEP Group present the highest entry salaries of all newly employed, not only interns (some newly employed are not interns, but employees with higher seniority and their salaries are higher due to seniority bonus and higher positions). None of HEP companies recorded any case of gender discrimination and intern conditions are equal for all with the same education level.

In 2017, some smaller companies employed a number of men with higher salaries (not interns), while newly employed women had lower salaries (because among them there were interns whose salary was lower).

The ratio of average minimum and entry level salary according to gender

Gender	Average minimum salary	Average entry level salary	Ratio
M	6,968.78	5,242.85	-25%
Ž	6,599.25	5,039.94	-24%



Diversity Charter

At the international gathering organized in Zagreb by Croatian Business Council for Sustainable Development, HEP joined the Diversity Charter Croatia. By signing the charter HEP committed to promote diversity and combat all forms of discrimination in workplace and business environment. The Charter was signed by about 40 companies and organizations in Croatia.

Diversity Charter is an initiative launched in 20 EU countries, with more than seven thousand signatories, whose goal is to promote diversity practices in the business environment. Organizations signatories to the Charter are expected to adopt diversity policy, promote and implement diversity principles and to report on the undertaken activities.

Differences in average gross salaries between men and women in particular categories were caused by the diversity in age and education of employees. As provided by Collective Agreement, all employees of HEP Group have seniority bonuses, so partially, differences in salaries occur because there is a higher proportion of men in older employee groups. Differences in salaries are caused also by education structure of employees, i.e. men in each group outnumber women (employees with higher education have higher salaries and work in higher positions).

Average gross salaries in 2017 (HRK)						
Education Level	Annual amount			Monthly amount		
	Women	Men	M/F Ratio	Women	Men	M/F Ratio
Doctoral degree	280,055.88	239,397.13	85%	23,337.99	19,949.76	85%
Master's degree	226,077.01	232,773.8	103%	18,839.75	19,397.82	103%
Bachelor's degree	170,222.00	178,904.02	105%	14,185.17	14,908.67	105%
Associate degree	132,408.10	144,731.08	109%	11,034.01	12,060.92	109%
Secondary school	110,433.02	117,269.87	106%	9,202.75	9,772.49	106%
Elementary school	89,156.51	89,069.33	100%	7,429.71	7,422.44	100%
Highly skilled	118,400.72	130,692.15	110%	9,866.73	10,891.01	110%
Skilled	97,854.21	109,582.36	112%	8,154.52	9,131.86	112%
Semi-skilled	73,302.16	91,696.87	125%	6,108.51	7,641.41	125%
No skills	76,583.94	88,548.96	116%	6,382.00	7,379.08	116%
TOTAL RATIO			104%	TOTAL RATIO		104%



HEP awarded Mamforce standard

In late December 2017, HEP was awarded the basic Mamforce company standard. Mamforce certificates were allocated at the final conference of the EU project "In pursuit of full equality of men and women: balancing professional and family life".

HEP recognized the inclusion in this project as a positive initiative harmonized with those conducted within the plan of human resources development. This program supports diversity development, promotes responsible practice and builds a motivating organizational culture.

In 2014, HEP was the first company in Croatia to adopt the Action Plan for Promotion and Implementation of Gender Equality in HEP Group, based on the guidelines by the Croatian Government and the Office for Gender Equality.

Productivity evaluations

In 2017, the first formal evaluation period was conducted in HEP-Opkrba. Out of 80 employees, 61 filled the formal conditions for participation in the working productivity management system (76.2 percent; 31 men and 30 women).

The evaluation period comprised all planned activities: annual individual meetings with employees, obligatory and additional consulting and development conversations. Employees participated in internal education and meetings on the evaluation system and attended external education on realization of personal objectives and the strategic objectives of the company. Following the evaluation period, it was established that 51 employees met the criteria for variable salary payment, while the most successful ones in particular areas received acknowledgement for their achievements. The system is fully operational in the electronic format and during the year the application functions were upgraded.

HEP-ESCO is the next company within HEP Group which will introduce such a system and has filed an official request to start the program.

Education and professional development

HEP Group does not have any formal programs for professional development and life-long learning which would support a continuous employment opportunity and would help the successful exit strategies of employees. However, this is enabled by continuous and targeted education and professional training of employees.

In 2017, HEP Group invested a total of 12,126,839 HRK in education programs, out of which 8,493,635 HRK in professional development and 2,762,210 HRK in trainings. On average, 1,020 HRK was invested per employee, while 18.05 percent of employees participated in education.

Caring continuously on the education needs of our employees and having in mind the business and development goals of HEP Group, employees were enabled to attend specialized courses and trainings.

Training and education in 2017

Average training hours	2016	2017	
Men	48.2	35.9	Gender
Women	53.7	48.5	
Employees	46.8	35.5	Labor category
Management	279.9	304.9	

Having in mind the need to acquire additional and new knowledge and skills from areas vital for HEP development, an internal tender was launched for financing post-graduate specialist and doctoral studies in 2017. Commission performed evaluation interviews and 28 employees were allocated scholarships.

Compared to 2016, this tender was an improvement for high potentials who were enabled to enroll post-graduate studies.



The establishment of Education Center

A study on the establishment of the Education Center for HEP employees was developed in 2017. The Study comprised the present state and proposals for improvements, i.e. construction of the Center, description and vision of education of HEP employees and the list of project documentation, as well as train the trainers program for the future trainers of HEP Academy.

HEP Academy will be a corporate education center, that is a place in which key know-how and resources of the company are gathered, meeting point for leaders and inter-disciplinary working groups and the place in which we will introduce new technologies in learning processes i.e. e-learning for entire HEP Group. HEP Academy has several specialist centers: center for business skills and competences, center for leadership, center for specialist knowledge and center for internal know-how. The process of transformation was focused on keeping young professionals who would be future leaders of the company. To this purpose we listed key knowledge and leadership positions.

There are 28 employees whose education was financed by the employer. In-house language courses were organized and the interest of employees to attend education in "soft skills", like leadership, customer relations, sales, negotiation, communication and presentation skills was increased. We organized professional trainings in public procurement, finance, accounting, internal audit, EU projects, environmental protection and energy efficiency. Employees were also enabled to obtain IPMA Level Certificate and certificates for trading on energy exchange (EEX, EPEX SPOT, HUIX SPOT). Our employees attended conferences, congresses, professional workshops and other professional gatherings (such as CIGRE, CIRED, MIPRO) as well as professional trainings stipulated by laws, expert exams and other programs.

Human Resources Sector provided the obligatory internal education in business correspondence for 46 interns in HEP HQ. A meeting was organized with the colleagues from Latvian energy company Latvenergo focused on mentoring, professional internships and trainings with the aim of experience and best practice exchange among two companies.

A special application Education Register is used to monitor all education and training programs financed by HEP Group. It contains reviews on reports on realized education, identification of needs for supplementing and improving modules and new reporting and enables data management for contracted professional trainings.

In 2018 it is planned to continue education and trainings of employees according to the adopted education plan, internal education implementation, more substantial operative collaboration with expert and academic community in the areas of common interest and to initiate scholarship program for senior students of high schools, having in mind the future development needs of the organization.



HEP team wins *Case Study* competition

IEDC Bled School of Management and IEDC Alumni Club Croatia organized the 10th Case Study Competition in business case solutions in April. Nine teams from large companies competed and following the two-day intensive work, HEP team won the competition over strong contestants. HEP team consisted of: Martin Đukić of HEP-ESCO-a, Tina Smojver of HEP-Opkrba, Vedran Prpić from Human Resources Sector, Nenad Krizmanić from Finance and Treasury Sector Marko Beus and Matej Gržeta from Market and Marketing Strategy Sector. HEP team carefully analyzed the available data and with joint business creativity offered a structured and argumented business model using the existing infrastructure, offers value for investment and ensures a stable profit for the company. Besides having an opportunity to develop skills of innovative thinking, problem solving and solution optimization, presentation skills and team work skills, HEP team won the first award and opportunity to compete in the regional competition of five teams.

Our sportspersons

Members of HEP running team participated in all three B2B RUN races in 2017 and recorded excellent results. The first race in Split brought them the fourth place in the competition of large companies, while in Rijeka and Osijek the teams scored the second. Ivan Stanić won bronze in individual competition in Slavonia. HEP team, which grew to 40 runners, gathered a respectable male and female teams. Besides scoring great results, they are motivated by team building and active way of life. HEP team also participated in the 17th Split half marathon, under the name HEP Running Team.

Our top runner Renata Novosel scored numerous successes in 2017 and became the best veteran track and field sportswoman of Croatia. She won the title by excellent scores in domestic and international competitions in the previous year - the second place in long jump at the European Championship in Denmark and the first place and new record in long jump at the Balkans Championship in Bulgaria.

Blood donors

HEP Group promotes the value and importance of blood donating and, in collaboration with the respective institutions regularly organizes blood donating events which regularly gather a large number of employees. In 2017 HEP employees donated blood more than 1,160 times. We incite our employees to donate blood also by ensuring two days of paid time off, which is more than legally stipulated.

Safety at work

During 2017, HEP Group registered a total of 112 injuries at work, 17 among women and 95 among men. There were 22 heavy and 90 light injuries. In the reporting period there were 6,765 working days, i.e. 54,108 working hours lost due to injuries.

In the category of heavy injuries, 14 occurred in the workplace, one on a business trip and seven in commuting to or from work. A total of 73 injuries occurred in the workplace during regular business operations and resulted from performing work contrary to the rules of safety at work or lack of adequate safety of work measures.

No professional disease was registered in the reporting period. Compared to the previous year, the number of injuries decreased in 2017. Joint committees for health and safety issues were not formed, while Collective Agreement comprises issues of health and safety at work in the part which regulates rights to health insurance, safe working conditions and regulates obligations of employees related to safe conduct of activities.

This is us: HEP Group in numbers

Year		31.12.2016	% of the total workforce	31.12.2017	% of the total workforce
Age group	<30	527	4.91	683	6.33
	30 - 50	4,971	46.33	4,917	45.6
	50>	5,231	48.76	5,182	48.06
TOTAL		10,729	100	10,782	100
Year		31.12.2016	% of the total workforce	31.12.2017	% of the total workforce
Gender	Men	8,393	78.23	8,419	78.08
	Women	2,336	21.77	2,363	21.92
TOTAL		10,729	100	10,782	100

Management

Year		31.12.2016	% of the total number	31.12.2017	% of the total number
Age group	<30	0	0	1	0.87
	30 - 50	68	60.18	67	58.26
	50>	45	39.82	47	40.87
TOTAL		113	100	115	100
Year		31.12.2016	% of the total number	31.12.2017	% of the total number
Gender	Men	89	78.76	90	78.26
	Women	24	21.24	25	21.74
TOTAL		113	100	115	100

Age and gender structure

Age group	M	F
18-25	169	15
25-30	397	102
30-35	601	192
35-40	724	262
40-45	1,278	307
45-50	1,225	328
50-55	1,375	395
55-60	1,606	547
60-65	1,044	215
TOTAL	8,419	2,363
		10,782

Type of contract

Gender	Type of contract	No. of employees
Women	Permanent	2,302
Men		8,216
Women	Temporary	61
Men		203
TOTAL		10,782

Employee turnover

Age group	Employed 2016	Employed 2017	Age group	Left 2016	Left 2017
Men			Men		
up to 18	0	2	up to 18	0	0
18-25	34	96	18-25	0	2
25-30	62	134	25-30	5	5
30-35	56	85	30-35	4	8
35-40	34	45	35-40	12	12
40-45	21	22	40-45	4	17
45-50	12	15	45-50	12	12
50-55	12	6	50-55	6	16
55-60	1	1	55-60	20	82
60-65	0	0	60-65	111	502
65-70	0	0	65-70	43	65
TOTAL	232	406	TOTAL	217	721
Women			Women		
18-25	6	13	18-25	0	1
25-30	26	33	25-30	2	3
30-35	28	36	30-35	2	1
35-40	16	17	35-40	0	2
40-45	13	12	40-45	2	2
45-50	4	6	45-50	1	5
50-55	4	0	50-55	3	8
55-60	1	0	55-60	9	77
60-65	0	0	60-65	19	88
65-70	0	0	65-70	5	6
TOTAL	98	117	TOTAL	43	193

Education level

Education level	Women	Men
Doctoral degree	4	16
Master's degree	50	132
Bachelor's degree	713	1420
Associate degree	274	593
Secondary school	1,163	3,757
Elementary school	59	52
Highly skilled	4	1,196
Skilled	44	1,052
Semi-skilled	9	56
No skills	43	145
TOTAL	2,363	8,419

Diversity: persons with disability

Persons with disability		
Age group	M	F
25-30	0	1
30-35	7	1
35-40	10	3
40-45	40	9
45-50	75	13
50-55	118	18
55-60	165	32
60-65	119	16
TOTAL	534	93

Parental leave

Gender	Employees who used parental leave in 2017
M	5
F	86
TOTAL	91

Injuries at work, according to companies

Company	2016	2017
HEP d.d.	1	1
HEP-Proizvodnja	17	10
HEP ODS	124	96
HEP-Toplinarstvo	5	4
HEP-Upravljanje imovinom	0	1
TOTAL	147	112

Market: challenges and successes



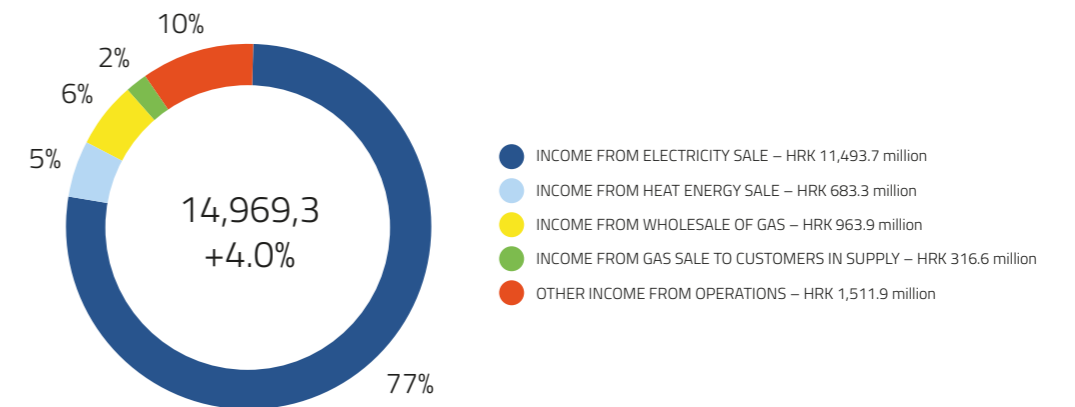
MODERNIZATION AND REVITALIZATION

WILL EXTEND THE WORK LIFE OF HYDROPOWER PLANTS, SECURE ADDITIONAL 150 MW OF CAPACITY AND INCREASE THE AVERAGE ANNUAL GENERATION BY 387 GWH.

6

Market: challenges and successes

Business income (in HRK mil.) and structure in total income (%)



Business result

HEP Group realized operating profit amounting to HRK 2,294.8 million in 2017, which is HRK 428.3 million less (15.7%) than in 2016 due to the increase of operating costs. Loss from financial activities was recorded in the amount of HRK 704.1 million, while it amounted to HRK 132.8 million in 2016, so this increase also affected decrease of HEP Group's net profit, which was HRK 1,303.3 million and by HRK 744.7 million lower than in 2016.

Business result (in HRK million)

	electricity			heat			gas		
	2016	2017	%2016	2016	2017	%2016	2016	2017	%2016
Business income	12,181.5	12,903.6	+5.9%	751.5	753.3	+0.2%	1,467.4	1,312.4	-10.6%
Operating costs	9,313.8	10,211.5	+9.6%	914.1	819.2	-10.4%	1,449.3	1,334.8	-7.9%
Operating result	2,867.7	2,692.2	-6.1%	-162.6	-65.9	-59.5%	18.0	-22.4	

Business income amounted to HRK 14,969.3 million, HRK 568.9 million more than in 2016, primarily due to increase of sales revenue by HRK 481.8 million (3.7%), as well as increase of other business income by HRK 87.1 million (6.1%). Operating costs amounted to HRK 12,674.5 million, increased by HRK 997.3 million compared to 2016. as the result of increased costs for energy purchase (29.7%) due to higher purchase of electricity for supplying customers in Croatia and in the region as well as electricity trading and increased costs of energy fuels (22.9%) – fuel oil and coal costs, and increased consumption of natural gas.

Last year was marked by several significant social and economic events on the market. Croatian economy grew in 2017. According to estimates of the Croatian Bureau of Statistics, the Croatian GDP increased by 2.8 percent compared to 2017. Favorable movements were also contributed by a successful tourist season, tax reform and increase of net salaries that encouraged personal consumption, as well as continuation of low interest rates period. Exposure of the household sector to risks decreased thanks to the continuation of deleveraging, economic recovery and employment growth, as well as personal consumption potential growth. Household consumption will be the main generator of the increase of domestic demand increase in the midterm. Structural vulnerabilities of the domestic economy increased mainly under the influence of Agrokor concern risks' materialization.

Generation, purchase and sales of electricity

The biggest share of operating income (86.2%) and total profit from Group operations were realized from electricity segment. HEP Group conducts generation, transmission, distribution and supply of electricity on the entire Croatian territory. HEP is the largest electricity supplier in Croatia with 13.7 TWh of sold electricity, while it sold 3.628 GWh of electricity and exported surplus to supply customers in Slovenia, Serbia and Bosnia and Herzegovina. A total of HRK 2,692.2 million in operating profit was realized in 2017, HRK 175.6 million less than in 2016. Income from electricity sale in 2017 amounted to HRK 11,493.7 million, which was HRK 662.2 million more (6.1%) than in the previous year. Out of this, 89.6% (HRK 10,302.7 million) was realized from sales in Croatia, while 10.4% (HRK 1,191.0 million) pertained to export.

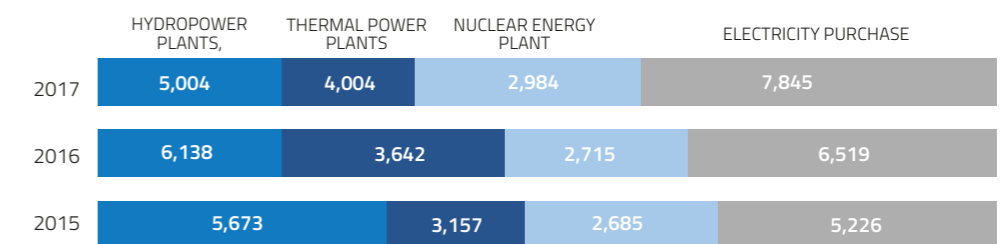
Income from sales of electricity in Croatia was under the influence of consumption increase and sales growth of HEP's generating companies in the system of subsidized production from renewable energy sources and high-efficient cogenerations. Income from electricity sales increased outside Croatia as well, due to the increased average price realized for electricity sold on the wholesale market and increased supply of the customers in the region.

Average price for commercial customers of HEP-Opkrba decreased by 6.9%, while average price for customers within guaranteed supply decreased by 4.9%. Application of the Ministry of Economy's regulation on the criteria for acquiring status of sensitive electricity customers and HEP Assembly decision which enabled residential customers to benefit from the same price of electricity, led to the decrease of electricity sales income by HRK 171.7 million. Economic growth, colder winter and hotter summer affected electricity consumption increase of the domestic consumers by 4.5% compared to 2016, where HEP-Opkrba and HEP Elektra increased sales by 4.3%. Stable market share was maintained in 2017 in electricity supply of domestic customers, while sales and number of customers increased in Slovenia.

Power plants owned or co-owned by HEP Group produced 12.0 TWh of electricity, 463 GWh less than in 2016, 61% of electricity realized by the group in 2017. In unfavorable hydrological conditions, hydropower plants produced 5,004 GWh of electricity, 1,134 GWh less compared to the production in 2016, which makes for 25 percent of necessary electricity. Thermal power plants and thermal power plants for heat energy generation, generated 4,044 GWh, thus increasing electricity generation by 402 GWh and their share in 2017 was at 20% of necessary energy. Nuclear power plant Krško delivered 2,984 GWh more than in 2016, due to repairs in October and November.

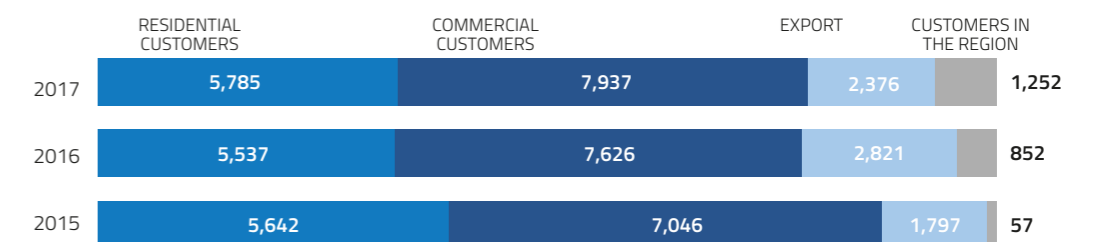
A total of 7,845 GWh of electricity was acquired on the market and purchased from HROTE (39% of necessary energy), 1,326 GWh more than in 2016. Out of the total amount, 5,870 GWh pertains to electricity import for customer supply and coverage of losses in transmission network. Remaining 1,931 GWh pertains to HEP Group's purchase of energy from HROTE for production from existing renewable energy sources and cogenerations in subsidized system (467 GWh more), while 45 GWh to procurement from producers outside HEP Group and traders in Croatia.

Generation and purchase of electricity (GWh)



Note: in 2017, generation of electricity in hydropower plants, thermal power plants and bioenergy plants in subsidized system amounted to 564 GWh (2016: 244 GWh; 2015: 7 GWh)

Electricity sales (GWh)



Generation capacities on December 31, 2017

Hydropower plants	Available capacity (MW) / (-MW pumping regime)	Available capacity (MW)
STORAGE HPP		RUN-OF-RIVER HPP
GHE Zakučac	539.15*	HE Varaždin 92.65
RHE Velebit	270 (-240)	HE Dubrava 79.78
HE Orlovac	237.0	HE Čakovec 77.44
HE Senj	216.0	HE Gojak 55.5
HE Dubrovnik	126/115	HE Rijeka 36.8
HE Vinodol	90.0	HE Miljacka 20
HE Peruća	60.0	HE Jaruga 7.2
HE Kraljevac	46.4	HE Golubić 6.54
HE Dale	40.8	HE Ozalj 5.5
HE Sklope	22.5	HE Krčić 0.34
CS Buško blato	7.5/4.2/(-10.2/-4.8)	HE Lešće 41.2
CHE Fužine	4.6/(-5.7)	HE Lešće ABM 1.09
HE Zavrleje	2	
RHE Lepenica	0.8 (-1.2)	
HE Zeleni vir	1.7	
CS: pumping storage CHE: pumped storage HE: hydropower plant RHE: reversible HPP * Included MHE Prančevići maximum capacity 1.15 MWh		
Thermal power plants	Net available capacity (MW, MWt, t/h)	Fuel
TE-TO Sisak	623 / 0 / 161	oil / natural gas
TE-TO Zagreb	422 / 743 / 360	oil / natural gas
TE Rijeka	303	oil
TE Plomin	105+192	hard coal
EL-TO Zagreb	88,8 / 384 / 416	oil / natural gas
TE-TO Osijek	89 / 184 / 150	oil / natural gas / fuel oil
KTE Jertovec	74	natural gas / fuel oil
Nuclear power plant	Net available capacity (MW, MWt, t/h)	Fuel
NE Krško*	348	nuclear
*HEP owns 50% of the total capacity of NE Krško		
Integrated photovoltaic plants	Net available capacity (MW)	Fuel
	0.2	solar energy
Bioenergy plants	Net available capacity (MW, MWt, t/h)	Fuel
BE-TO Sisak	3/10/18	untreated wood pellets
BE-TO Osijek	3/10/18	untreated wood pellets

Availability and maintenance of generation units

Total work availability of hydropower plants in 2017 amounted to 89.3 percent. Total time availability of hydropower plants in 2017 was 90.1 percent. Total work availability of thermal power plants in 2017 was 56.9 percent, while total time availability of these plants was 76.6 percent in 2017.

Most of HEP-Proizvodnja's generation units recorded planned availability, considering preventive and corrective repairs, annual repairs and revisions of production units and auxiliary plants have been implemented, with certain deflections from planned timeline. Reasons for deflections from planned availability are unfavorable hydrological circumstances, backing from acquisition of fuel for non-competitive, older generation blocks, tardiness in realization of maintenance contracting in public procurement, unplanned difficulties in fulfillment of contracted activities and plant defects spotted during post-repair testing.

All plants were operational or in planned repairs in the beginning of 2017. Certain production units were under trial work regime.

Available capacity for electricity generation plants at the beginning of 2017 amounted to 3,792.1 MWe:

- > in hydropower plants (apart from AG B HE Dubrovnik) 2,087.3 MWe (55.0%),
- > in thermal power plants and thermal power plants for heat energy 1,704.8 MWe (45.0%).

Available capacities for generation of heat amounted to 1,311 MWt at the beginning of the year, and 1,087 t/h, i.e. 888 MWt for generation of technological steam.



Revitalization of hydropower plants

During 2017, a total of HRK 420.2 million was invested by HEP-Proizvodnja in plant revitalization, replacements, reconstructions and new objects.

HEP is amid long term investment cycle to revitalize and modernize its hydropower plants, worth HRK 3.2 billion. Final phase of revitalization of the largest among them, HE Zakučac on the Cetina River, is underway, with total value of investment close to a billion kuna. Reconstruction saw replacement of used equipment, implementing modern technical and technological solutions. Plant capacity will increase by 52 MW, which will enable increase of average annual generation by 58 GWh.

Along with HE Zakučac, HEP continued preparations for revitalization of HE Varaždin, HE Senj and several other large hydropower plants in different preparatory phases (from contracted project design and permits to already contracted works). Reconstruction is underway in several other hydropower plants (i.e. HE Gojak, CHE Fužine, HE Ozalj).

Modernization and revitalization will extend the work life of these hydropower plants, secure additional 150 MW of capacity and increase of average annual generation by 387 GWh, directly adding to the stability of Croatian electricity system.

Central Chemical and Technological Laboratory in 2017

During 2017, Central Chemical and Technological Laboratory (CKTL) expanded its service to sampling solid biofuels and ash. Croatian Accreditation Agency conducted laboratory evaluation in July, in accordance with norm HRN EN ISO/IEC 17025:2007, confirming laboratory accreditation to test fuel oil, coal, coke and solid biofuels, as well as to sample solid biofuels and ash from their combustion.

Total number of tested samples increased by 90 percent compared to 2016, with most them (68%) being solid biofuels and ash. Number of external clients increased, especially in testing solid biofuels - in 2017, 50 percent of all tests were conducted for external clients.

The Laboratory also participated in installation of equipment and introduction of methods to determine humidity content for wood pellets in BE-TO Osijek and BE-TO Sisak by installing hygrometers and driers, developing work instructions and instructing plant staff to work with this equipment. Expansion of accreditation introduced monthly monitoring of pellet and ash quality, which consists of sampling, delivery and analysis.

During 2017, CKTL participated in testing options for biofuel ash implementation together with Faculty of Agronomy and Faculty of Civil Engineering in Zagreb.

Generation and sales of heat energy

Generation, distribution and supply of heat energy are conducted in Zagreb, Osijek, Velika Gorica, Zaprešić, Samobor and Sisak. A total of 2,302 GWh of heat energy was produced in 2017, 5 GWh or 0.2 percent less compared to 2016. Sales decreased by 1.3 percent or 23 GWh compared to 2016, amounting to 1,914 GWh. Breakdown according to customer group was 58% to residential customers (1,110 GWh) and 42% to commercial customers (804 GWh). In total consumption of heat, Zagreb area (including Samobor, Velika Gorica and Zaprešić) took 85.0%, Osijek 11.7% and Sisak 3.4%.

January and February 2017 recorded increased sales due to a colder winter compared to the same period 2016, while sales in December decreased in comparison to the same month in 2016 due to higher temperatures. Total sales to residential customers dropped by 1.1 percent in 2017, while sales to companies decreased by 1.5 percent.

Generation, distribution and supply of heat energy participated in HEP Group income with 5 percent in 2017, recording loss amounting to HRK 65.9 million. Loss decreased by HRK 96.7 million compared to 2016, due to the decrease in generation costs followed by lower gas prices and lower expenses for value adjustment of long term assets. Income from sales of heat energy amounted to HRK 683.3 million, decreasing by HRK 16.3 million (2.3%) due to decreased consumption (by 1.3%).

Gas distribution and supply

HEP Group distributes and supplies customers with gas on retail market and has been a wholesale market supplier since 2014. Wholesale and retail sales of gas take 8.8 percent in HEP Group operating income, while business losses amounted to HRK 22.4 million. Recorded income from wholesale amounted to HRK 963.9 million and take 6 percent of HEP Group operating income. Compared to a year before, income dropped by HRK 138.8 million (12.6%) due to decrease in sales (by 1.7%), and lower average price (9.4%). Prices at which HEP sells gas to suppliers in public service are determined by the Government.

Income from gas distribution and supply amounted to HRK 316.6 million, lower by HRK 25.2 million (7.4%) in 2017, due to 13.5% lower average sales price. Sales price for residential customers decreased by 20 percent since April 1, 2016, and additionally by 2.5 percent since January 1, 2017. Sales price for companies also decreased, due to the decrease of fees for distribution and supply margin, in order to achieve competitiveness in tenders.

Gas sales increased by 7 percent; to residential customers by 4.8 percent and by 9.2 percent to commercial customers compared to 2016. Sales on HEP-Plin's distribution area increased by 4.8 percent, while sales to customers in other distribution areas in Croatia grew by 40 percent.

Distribution of electricity

Electricity distribution reliability

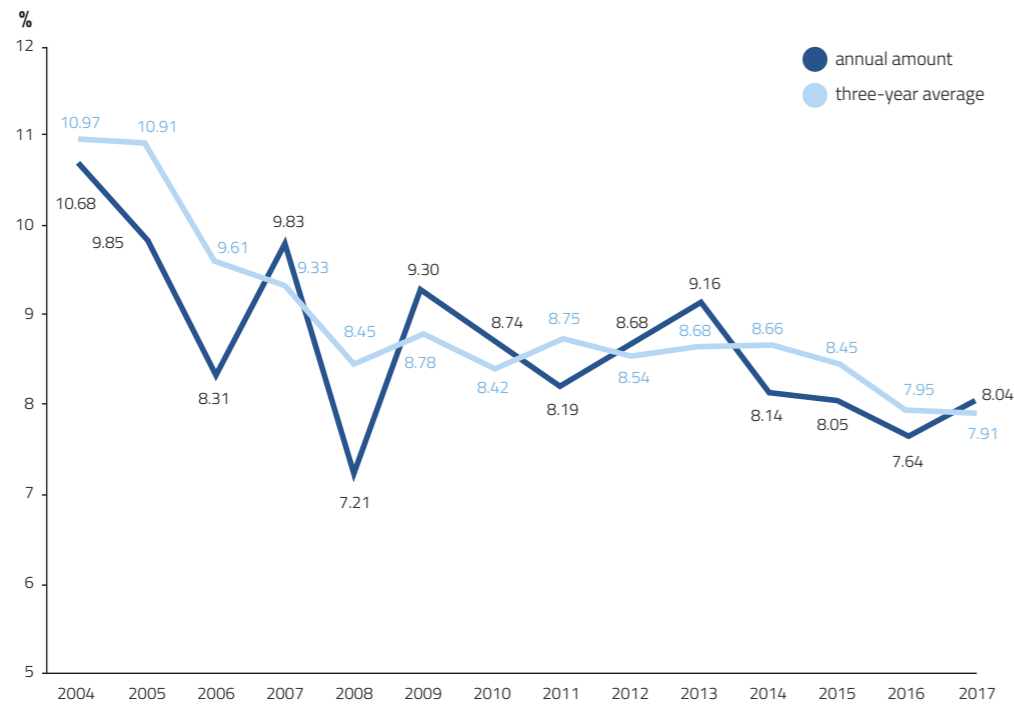
Security and stability of energy distribution is HEP's material topic valued the most important according to external and internal stakeholder (marked 8.9/10). Importance of the topic is viewed in responsible management of service, efforts invested in decrease of occurrence and duration of power supply interruptions and decrease of losses in distribution.

Electricity losses are indicators of efficiency and quality of operations in electricity distribution. Decrease of losses is one of the most important business goals. In order to achieve it, HEP ODS implements a series of investment and operating measures. Two kinds of losses are recorded: technical losses because of plant status in the distribution network and technical characteristics of network elements, as well as heat losses due to line and transformer overloads. Non-technical losses are a consequence of unmeasured and uncalculated energy consumed by the customers.

Distribution network losses, 2017

Description	2016	2017	Difference 2017-2016	2017/2016 (%)
Losses in GWh	1,234.8 GWh	1,342 GWh	107.2 GWh	8.68
% losses	7.64	8.04	0.4	5.26

Recorded annual amounts and three-year averages of losses in distribution network, 2004-2017



Overview of recorded losses on distribution network, 2013-2017

Description/year	2013	2014	2015	2016	2017
Procurement MWh	15,925,500	15,440,685	16,075,457	16,159,843	16,695,347
Sales MWh	14,466,082	14,183,354	14,780,610	14,925,060	15,352,813
Losses MWh	1,459,419	1,257,331	1,294,847	1,234,783	1,342,534
Losses %	9.16	8.14	8.05	7.64	8.04

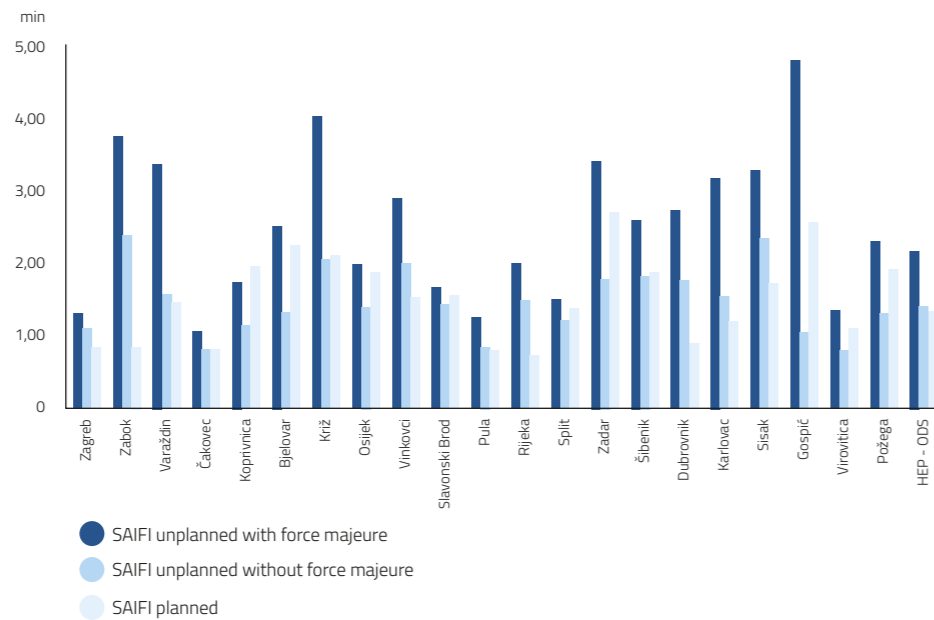
Supply reliability

Indicators of electricity supply are monitored digitally, via DISPO application. The program allows statistical processing of planned and unplanned supply interruptions lasting longer than three minutes. Table provides numerical overview of reliability indicators in distribution network (SAIFI and SAIDI), for planned and unplanned interruptions (with or without *force majeure*), and graphic overview in the diagram.

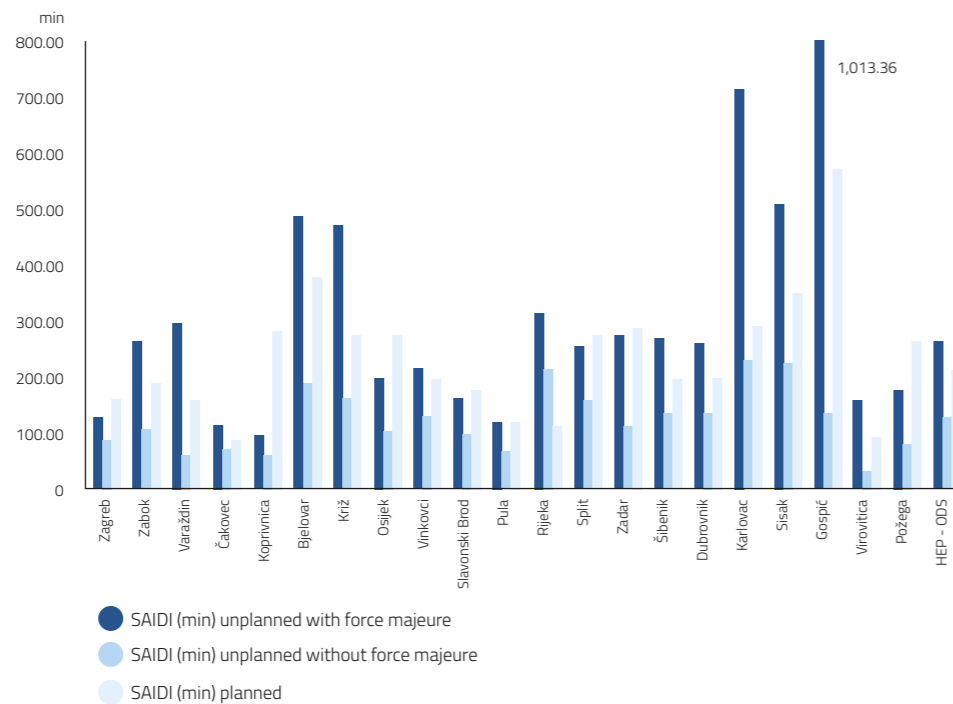
Indicators of electricity supply reliability according to distribution areas for 2017

Distribution area	Planned		Unplanned		Unplanned – without force majeure	
	SAIFI	SAIDI (min)	SAIFI	SAIDI (min)	SAIFI	SAIDI (min)
Zagreb	0.91	158.79	1.41	126.47	1.20	89.01
Zabok	0.91	187.39	3.96	263.04	2.53	108.18
Varaždin	1.56	158.82	3.60	296.69	1.68	60.98
Čakovec	0.87	87.08	1.15	114.47	0.87	74.26
Koprivnica	2.13	276.62	1.88	93.07	1.24	59.15
Bjelovar	2.39	378.84	2.69	486.18	1.41	187.65
Križ	2.25	274.09	4.31	468.52	2.19	163.13
Osijek	2.00	270.47	2.10	197.31	1.50	103.01
Vinkovci	1.62	191.99	3.09	213.24	2.13	129.00
Slavonski Brod	1.79	177.40	2.94	157.84	2.09	98.86
Pula	0.88	120.12	1.34	119.90	0.90	67.36
Rijeka	0.79	111.91	2.13	312.54	1.61	213.48
Split	1.48	274.98	1.61	254.08	1.33	157.30
Zadar	2.88	286.04	3.63	274.97	1.93	113.15
Šibenik	2.00	194.26	2.78	270.01	1.94	136.59
Dubrovnik	0.96	203.41	2.92	259.01	1.86	135.99
Karlovac	1.28	292.11	3.37	716.14	1.64	232.49
Sisak	1.85	348.56	3.52	508.35	2.52	223.28
Gospić	2.75	571.34	5.10	1,013.36	1.14	133.70
Virovitica	1.17	91.40	1.43	156.73	0.86	33.31
Požega	2.06	259.74	2.47	176.66	1.40	81.22
HEP ODS	1.45	21.12	2.32	259.46	1.52	125.71

SAIFI indicators of supply reliability for 2017



SAIDI indicators of supply reliability for 2017



HEP ODS conducts constant evaluations to improve impact on health and safety of customers in the following segments: technical functionality of distribution network and energy objects, continued monitoring, supply and installation of quality materials, equipment and devices. In accordance with estimates network safety and quality, reconstructions are planned for existing distribution network as well as the construction of new.

HEP ODS - investments in network and capital investments

Plans and realization of distribution network development, investments and maintenance are organized under the property management function, prevailing concept in successful infrastructural operations in the world. At the end of 2017, HEP ODS developed and submitted to the Croatian Energy Regulatory Agency a ten-year plan of the distribution network development in line with HOPS's ten-year plan.

Feasibility study has been made for three groups of project from advanced network functionalities under the working title "Pilot project of introduction of advanced networks". Measures to install advanced measuring devices are included, as well as manageable separators in air and cable network and transformers with decreased losses, while contribution to managing losses, increase of quality and reliability and the number of customers has been shown. Worth nearly EUR 24 million, the pilot project will be co-funded by EU, within Operational Program Competitiveness and Cohesion 2014-2020, priority axis 4, with 85 percent of the amount, i.e. EUR 20 million. During 2017, HEP imitated procurement of 122,000 remote measuring devices for residential customers and companies.

A 51 percent share of SINCRO.GRID project has been approved in May 2017 financed from CEF program aimed at supporting infrastructure projects. Implementation of this program will ensure a more efficient integration of renewable energy sources and increase security of electricity supply. HEP ODS is the participant in the project along with HOPS, ELES (Slovenian operators of transmission system) and SODO (Slovenian operator of distribution system).

Investments are planned for energy objects of all power levels, and in new technologies that secure a more reliable supply. Investments in energy objects include replacements and reconstructions of existing and construction of new objects, remote management systems, distribution network automatization, measuring devices, new technologies and business infrastructure.

Investments realized by HEP ODS in 2017

Funds available according to HEP ODS Investment Plan in 2017 amounted to HRK 610 million without creating energy conditions in the network and construction of connections, while total investments amounted to HRK 960 million. Main characteristics of distribution network are its size and complex structure. Despite significant efforts to increase the level of planned investments and repairs realization, there is still a high level of fixed assets' write-off. It is crucial to underline the importance of optimum investments in replacing used equipment and increasing network capacity, taking planning criteria into consideration. Availability and dynamic of funds use for connections is in line with the dynamics of fee payments for connecting power.

Capital investments

Capital investments are realized through several years and mostly signify engagement of significant potentials of executors, industry and investors. In 2017, 16 capital investments in connecting points and backbone mid voltage lines have been finished. Total value of completed investments amounts to HRK 135.8 million, nearly HRK 36.4 million invested in 2017.

Among the most important projects of the year were construction of TS 110/10(20) kV Sesvete in distribution part of the facility and interpolation in 10(20) kV network, as well as TS 35/10(20) kV Hrvace. Complex reconstructions on several other key connection points have been finished in this period, works on long term projects to construct four new continued, as well as investments in reconstruction of several existing. Reconstruction, construction, transformation increase, or upgrades were finished on mid voltage facilities in several energy objects 110/10(20)kV, 110/35/10(20)kV, 35/10(20)kV and MV network.

In 2017, HEP also realized projects from other areas: investments in construction of mid and low voltage objects to increase capacity, repair power conditions and increase safety of supply for the program of used equipment revitalization, transfer of MV network to 20 kV, sanitation and reconstruction of metering points and connections, replacement of meters, investments in remote monitoring and development of processes involving measuring devices and data. HEP invested in management systems, automatization, advanced technologies, environmental protection, communication infrastructure, informatization of operations and other segments. A total of HRK 478 million were secured for these projects, with HRK 459.4 million invested in the reporting period.

Nearly 489.1 kilometers of low voltage lines were reconstructed and replaced in 2017, as well as 167.7 kilometers of mid voltage lines. Additionally, 892.7 kilometers of new low voltage lines and 477.9 kilometers of mid voltage lines were constructed.

HEP ODS – plans for 2018

Ambitious plans are set for the next period, including: continuation of business process development pertaining to functioning of electricity market, securing IT support to business processes on electricity market, adjustment and development of customer connection process, development and implementation of technological solutions which will assist in network development and advancement. Measures for decrease energy losses are to be implemented to achieve energy efficiency of the distribution network and increase of operative efficiency.

Special care will be directed at business adjustments in accordance to the new EU regulation package (so-called "winter package") and new national regulation, with active participation in public discussions in adoption processes. New legal and regulatory framework will have significant impact on HEP ODS operations, especially in terms of technologies, organization and regulation, and need for flexible adjustment to new conditions. Restructuring processes secures preconditions for market and technical flexibility to the system, enabling total integration of market stakeholders with focus on distribution level.

In 2018, HEP ODS is preparing for certification of energy management system according to ISO 50001, encompassing measures for the decrease of energy losses and increase of energy efficiency. As a special project for 2018, HEP ODS plans to conclude SAP EDM/ECM project, aimed at advancing IT support to electricity distribution. Establishment of this system and a unique contact center will replace key existing business applications HEP Billing ODS and WEES, and include certain business areas that are not IT supported.

Network customers

During 2017, HEP ODS performed regulated operations of electricity distribution and secured reliable electricity supply within these operations, in line with obligations and responsibilities. HEP ODS's operations in this period was marked by adjustment to the new regulatory framework and to the new relations on electricity market. Contracts were signed with all suppliers to issue unique bills, i.e. charge for network use and exchange of data, in use since the beginning of 2017.

Reorganization of HEP ODS was conducted in 2017, organizing support functions (HR, legal, procurement, IT, economy) according to function model in the company seat, while technical functions were partly organized according to combination of geographical and function model.

In the segment of customer relations, HEP ODS established Contact Service for customers in the seat, which is functionally in charge of departments on the level of distribution areas and is in charge of organization and coordination of customer and public relations. At the end of the year, we initiated establishment of a unique contact center in order to unify all customer-related business processes in one functional unit, with purpose of unifying practice, increase availability and service quality.

HEP ODS informs customers via its web site which offers information on tariff models, planned works, directions for establishing network connections and change of supplier, advice for rational energy use and others. Web site also holds information on all legislature and regulation in HEP ODS. Web site mojamreza.hep.hr contains all information for customers' metering points.

There were no cases of market competition breach in 2017, or monopolistic practice. HEP ODS does not implement marketing activities since distribution is regulated public service. As such, it can implement communication, but not marketing activities in its operations.

Communication with customers is conducted via web site, and in direct contact through multiple channels (counters, e-mail, telephone, fax, mail).

Customers in 2017

Voltage level/TM	Total
HV - 110 kV	4
MV - 35 kV	93
MV - 10 kV	2,219
Total MV	2,312
Total high and medium voltage	2,316
LV-commercial (blue)	43,663
LV-commercial (white)	128,488
LV-commercial (red)	25,418
Total LV-commercial	197,569
LV-public lighting	21,583
LV-residential (blue)	729,787
LV-residential (white)	1,467,887
LV-residential (black)	858
LV-residential (red)	3,004
Total LV-residential	2,223,119
total low voltage	2,442,271
TOTAL	2,444,587

Note: blue, white, red and black are tariff models.

Customer complaints to the voltage quality in the distribution network, 2017

The evaluation of voltage in distribution network relies on the number of justified complaints by network users; based on the written complaints about voltage quality on the metering point, additional measurements of voltage quality are done, and justifiability of complaint is evaluated. The table shows data on quality control from voltage quality complaint database.

Distribution area	Number of network users	Number of complaints	Number of justified complaints	Percentage of justified complaints (%)
Zagreb	555,017	51	26	51%
Zabok	67,069	6	3	50%
Varaždin	71,509	4	4	100%
Čakovec	47,365	13	3	23%
Koprivnica	53,362	5	3	60%
Bjelovar	50,824	9	3	33%
Križ	77,971	4	0	0%
Osijek	154,426	4	0	0%
Vinkovci	82,843	5	3	60%
Slavonski Brod	65,592	3	3	100%
Pula	160,455	18	11	61%

Rijeka	216,731	32	24	75%
Split	295,656	9	5	56%
Zadar	127,623	3	2	67%
Šibenik	87,743	11	4	36%
Dubrovnik	54,821	4	1	25%
Karlovac	87,233	17	11	65%
Sisak	60,216	3	0	0%
Gospić	48,876	1	0	0%
Virovitica	30,317	1	0	0%
Požega	27,355	2	2	100%
HEP ODS	2,423,004	205	108	53%

The following table shows data on customer disconnections in the household category in 2017. Distribution system operator is obligated to re-establish supply within 24 hours according to the supplier demand.

Distribution area	Number of disconnections in residential category in 2017
Zagreb	1,121
Zabok	215
Varaždin	114
Čakovec	111
Koprivnica	138
Bjelovar	265
Križ	284
Osijek	510
Vinkovci	279
Slavonski Brod	221
Pula	378
Rijeka	368
Split	437
Zadar	147
Šibenik	132
Dubrovnik	65
Karlovac	220
Sisak	196
Gospić	68
Virovitica	162
Požega	78
TOTAL	5,509

Market approach and customers

HEP Elektra

HEP Elektra operations pertain to universal and guaranteed supply of electricity. Universal service is a unique way of selling electricity, securing the right of residential customers to electricity supply of regulated quality on the entire territory of Croatia, at real, comparable and transparent pricing. Guaranteed supply pertains to service to end customers, at certain and regulated conditions, which lost their suppliers.

HEP Elektra bases its operations on customer relations, and is regionally organized company, with organization units in Zagreb, Split, Rijeka and Osijek, which hold customer counter services. HEP Elektra customer center enables telephone and e-mail communication with the customers. Most of requests by e-mail were solved the same day in 2017. In order to secure adequate quality of communication, HEP Elektra aims to strengthen the customer center, especially since the rise in customer contacts since the separation from distribution operations.

In 2017, the consumption of customers within universal guaranteed supply service increased; HEP Elektra delivered 6,277 GWh of electricity, 192 GWh (2.9%) more than in 2016. Higher consumption was caused by colder winter and hot summer. Ratio of electricity consumption increase was 54:46 in favor of universal service, i.e. residential customers. In 2018, HEP Elektra will focus on stabilization of IT support for customer analytics by defining and concluding processes pertaining to calculation, charging and customer relations. Moving business premises is planned in order to physically separate from HEP ODS and fulfill legal obligation. The company also plans to introduce optimal organization scheme for efficient operations.

Number of metering points for HEP Elektra customers according to voltage levels

Customer category	2016	2017	2017/2016 (%)
High voltage	0	0	
Medium voltage	258	276	7,0%
Low voltage – commercial	74,251	77,220	4,0%
Low voltage – public lighting	1,559	1,425	-8,6%
Low voltage – residential	2,005,637	2,002,828	-0,1%
Low voltage total	2,081,447	2,081,473	0,0%
Total	2,081,705	2,081,749	0,0%

Number of metering points, HEP Elektra

Customer category	2016	2017	%17/16
Residential	2,005,637	2,002,828	-0.1%
Commercial	76,068	78,921	3.8%
TOTAL	2,081,705	2,081,749	0.0%

During 2017, the number of metering points of residential customers supplied within the guaranteed public service increased to the total of 78,921. At the end of the year, HEP Elektra provided electricity supply to residential customers on 2,002,828 metering points, which is a slight decrease compared to the previous year.

HEP Elektra tariffs are publicly published on the company web page and is universal for all customers. Information on the change of supplier are also clearly publicized. HEP Elektra is obliged to accept all undistributed customers within the system of universal supply service. In 2017 no cases of competition principles breach were reported. The use of electricity contains hazards and dangers of electric shock due to faulty electrical installations or appliances. Therefore, HEP Elektra, in the capacity of the supplier, publishes on its web site advice to customers for responsible and safe use of appliances and installations. Recommendations for safe and rational use of electric appliances are also published on the web page and regularly updated. There were no breaches of codes related to products and services, related to marketing communications or customer complaints related to privacy infringements or loss of personal data.

HEP-Opkrba

During 2017 HEP-Opkrba faced ever increasing challenges on the electricity market in Croatia. All the planned objectives to keep the market share and realize revenues were met, with simultaneous business expansion to the regional markets. Having the position of the leading supplier, we cannot compete with prices, but only by new products and innovative solutions, we focused on increasing business efficiency and process digitalization. At the beginning of the year, we migrated key applications for HEP-Opkrba business management to the higher level of system software, HEP OPEN.

We offered our customers a new product – HEPI Trader, which enables them autonomous management of electricity procurement. We especially focused on business integrity, so we enabled all customers the option to monitor what they contracted, how the prices are formulated, what they can do to improve their negotiating positions, which products HEP-Opkrba can choose to advance their business, but also the measures for their practical savings and better results.

In 2017, HEP-Opkrba realized the sales of electricity to commercial customers amounting to 7.2 TWh, which is an increase of sales compared to the previous year of 3.9 percent.

Hepi tariff model for residential customers is still positioned as the most innovative package of services on the market and by the end of 2017 had more than 43,000 supply contracts. This continued the trend of increase in the number of contracts at the double rate than the previous two years.

We continued to expand our business activities in the region. In 2017, there were 400 GWh electricity contracted in supply more than the previous year.

Customer relations

We provide the support to customers by individual contacts of sales managers for large customers, online service for all customers (web page, mobile application, My account and My Hepi account applications, social networks, portals), Newsletter and contact through Customer Service. In 2017, Customer Service of HEP Opskrba recorded a total of 147,583 incoming calls. Out of that number, 93,687 were in residential category (63%). Customer Service also received 27,294 e-mails, out of which 10,012 for Hepi. Inquiries were mostly related to new supply contracts, new tariff models, public procurement, prices, conditions of supply, supply fees, disloyal competition and similar.

The beginning of 2017 was especially challenging for residential customers. The transfer to the unified account was used to promote the new invoice design, which is now more clear and transparent. Furthermore, on the back side of monthly bills the customers can find useful advice on additional savings of energy in their households. Additional information and education campaign was organized for customers.

Traditionally, six years in a row, HEP-Opskrba organized customer events in four Croatian regions and in Slovenia. More than 700 business people, the largest electricity buyers, participated in the program. They were shown the latest trends on electrical energy market and business performance of HEP-Opskrba. Following the events, the participants were asked to participate in a survey in which they expressed satisfaction with the events and intention to participate in other similar gatherings.

HEP-Opskrba provides the data on the products and services to the customers during the contracting procedure. In the reporting period there were no violations of regulations and voluntary codes on product and services or marketing communications. One case of violation of privacy was reported. It was established that the complaint was founded and HEP-Opskrba undertook corrections, i.e. technical, organizational and HR measures for the protection of personal data and informed the Agency for the protection of personal data thereupon.

Number of customers on December 31, 2017

No.	Customer category	2017
1	Commercial customers	36,989
2	Residential customers	43,072
3	TOTAL	80,061

Number of metering points according to voltage on December 31, 2017

No.	Customer category	2017
1	High voltage	141
2	Medium voltage	1,541
3	Low voltage – commercial	88,058
4	Low voltage – public lighting	13,193
5	Low voltage – residential	43,072
6.	LOW VOLTAGE TOTAL (3+4+5)	144,323
7	TOTAL (1+2+6)	146,005

What did our customers say?

Two market surveys were organized in 2017. In February, a qualitative research was conducted among our and competition customers, both in residential and commercial segments. Research used personal interviews in commercial segment and focus groups in residential segment. Focus groups included 125 respondents from Zagreb, Split, Osijek and Rijeka. The results proved that the price was the most important criterion in choosing the supplier. The way the company treats the supplier is also very important. The perception is influenced by availability of customer service, kindness, efficiency and expertise, loyalty program and technical support.

During the summer we organized quantitative survey among HEP Opskrba and competition customers in commercial and residential segments. The survey included 410 commercial customers who were contacted by phone and 800 residential customers (500 contacted by phone and 300 in online research).

The results of the survey found that most commercial customers (56%) have positive opinion on HEP-Opskrba. Price is the most important in supplier selection and the only important criterion for 47 customers interested to change the supplier. Residential customers also identified price as the most important.

Most residential customers (46%) have a positive opinion on HEP-Opskrba. Perceived advantage of HEP-Opskrba mostly relate to the quality of service and a good relationship with the customers, experienced business and having necessary resources. One third of residential customers has contacted Customer Service and on average they were satisfied. Less satisfied are the youngest, while the most satisfied are the oldest customers. Residential customers prefer to communicate by phone (78%) and to a less extent e-mail (13%).

Customer survey indicated that commercial customers are mostly satisfied with their present supplier. HEP-Opskrba was graded better than other suppliers.

HEP-Opkrba Customer Service obtained ISO 9001:2015 certificate

Extraordinary commitment and high level of customer care brought HEP-Opkrba's Customer Service certificate ISO 9001:2015 for service quality as the first in Croatia.

In the second half of 2017, Customer service prepared itself for the certification according to this norm; the process was successfully finished in the planned period, which led to obtaining ISO certificate for three years with obligatory annual recertification audits.

ISO 9001 certificate requires that the organization documents its business operations, with the option of measuring efficiency of business processes, introducing customer demands in its plans, assuring the stability of the quality of service, easy adaptation of entry-level employees, management of education and the selection of the best suppliers.

Hepi Trader - advancing commercial customers relations

Since 2017, a new product Hepi Trader has been available for commercial customers. The platform enables autonomous control of electricity procurement, comparison of market prices, monitoring electricity price trends on the market, optimization of costs operational enhancement. We have recognized that, due to globalization, large commercial customers learn on energy trading and managing savings. Large industrial buyers, especially energy-intensive demand electricity prices which enable them to increase business profitability.

An application and web pages trader.hep.hr were created, enabling autonomous purchase of electricity, monitoring of electricity market and want to buy per tranches. Hepi Trader was presented to customers in all five business regions in Croatia.

HEP-Toplinarstvo

The most important projects of HEP-Toplinarstvo in 2017 were the reconstruction of heating network in Zagreb, including the reconstruction of the heat line Mladost bridge – Sarajevska street, heat section in Kranjčevićeva street, replacement of heating network in the city sections of Gajnice and Knežija and the project of connecting the city section Dubrava to the central heating network. Furthermore, there was the reconstruction of heating network in Velika Gorica, heat and steam lines in Osijek, the preparation of long-distance operation and metering heating sub-units and the introduction of long-distance operation system in Sisak as well as the reconstruction of the heating network in the section of Brzaj in Sisak.

Each year, out of the heating season we conduct regular reconstructions of heating facilities and works on revitalization of the heating system to ensure safe, quality and continuous supply of heat to about 126,000 buyers. The maturity of network and frequent failures are the major criteria to select parts of heating and steam network which should be reconstructed. We must keep in mind that the first heating network was launched in Zagreb in 1954 and in Osijek in 1963. We reconstructed 8.5 km of heat lines and constructed 6 km of new lines.

Planned revitalization decreases the number of urgent interventions on heating network, losses in heat energy transmission and the costs of network maintenance, prevents failures and boosts operational safety of heating systems and the reliability of supply to end buyers.

Works on heating systems are financed through power tariffs for heat energy generation and distribution of heat energy and are, compliant to the methodologies of determining generation and distribution of heat energy tariffs, calculated in the monthly bills for heat energy.

HEP-Toplinarstvo, as the largest subject on the heat energy market, has a goal to keep the leading position in distribution and supply of heat energy to end buyers, with minimized losses of energy. We also strive to be recognized as a modern, environmentally sensitive and socially responsible company. With the market share of 80 percent in heat energy sector, HEP-Toplinarstvo is the largest heat supplier in Croatia.

Our goals in the next period are: to finalize the project of introducing quality and environmental protection management, to continue advancing the NAPTOP application and participate in heating legislative procedures. We also plan to construct new heat lines and reconstruct the heating network in Zagreb, reconstruct heating network in Velika Gorica and Samobor, continue to reconstruct heating and steam networks in Osijek and the heating network in Sisak. Besides, the introduction of the remote metering of heat consumption and advancing customer relations are planned.

There were no proceedings initiated because of the violation of market competition, anti-trust and monopoly practices in the reporting period.

Basic indicators	Unit	2016	2017	% 2016/2017
Generation of heat energy (total HEP-Toplinarstvo and HEP-Proizvodnja)	TWh	2.31	2.30	-0.19%
Sales of heat energy	TWh	1.94	1.91	-1.29%



EL-TO Zagreb: care for safe supply

In cases of damage to the high voltage network of Zagreb, a multistage interruption in the supply of electricity may occur. That is why the EL-TO Zagreb, a HEP-Proizvodnja facility provided spare power to key customers of existing production units with the aim of increasing the safety of heat and steam supply from its plant. Spare power supplies enable the re-establishment of a technological process that could deliver the necessary heat energy in the form of technological vapors under such conditions. The rapid re-establishment of the technological process or the delivery of technological steam to industrial consumers is of great importance, since they are, considering their technological process, extremely vulnerable to the breakdown of supply with the technological steam.

End customers relations and stakeholder engagement

HEP-Toplinarstvo has a Center for end customers, where they can find answers to all the questions they are interested in, make payment of the heat energy bill and make changes related to ownership. In addition, personal visit to our Center, communication is also organized through other channels: land mail, consumer telephones and emergency call lines (available from 0 to 24 hours), fax, e.-mail and on the web site. End customers usually inquire about debt for heat energy, heat calculation, HCA's, reporting and changing ownership of residential or business premises, technical failures, and difficulties in supplying heat energy. All customer inquiries and objections have been timely answered, in accordance with the prescribed deadlines. As in previous years, all end customers connected to the common meters of heat energy were provided with customer service reports (HEP-Toplinarstvo), with which they were informed about ways of rational use of heat energy.

End customers	TOTAL	Zagreb	Osijek	Sisak	Velika Gorica	Samobor	Zaprešić
Residential	120,397	96,586	10,459	4,057	5,659	1,354	2,282
Industry and business facilities	6,337	4,602	1,288	89	241	26	91
TOTAL	126,734	101,188	11,747	4,146	5,900	1,380	2,373

Related to the safety and health of customers, the systems of long-distance heating are among the best and safest ways to provide heat in residential and commercial units and contribute to comfortable living standard. Cases of endangering customer health were not recorded, so the assessments on health-related impacts were not necessary. Neither cases of breach of regulations or voluntary codes related to marketing communications were recorded, nor cases of customer privacy violations.

We continuously inform our end customers on efficient and correct use of heat energy. We advise them not to overheat their residential or business facilities and that the optimal temperature of heated spaces is 20°C. We also advise them to install the appliances for heat regulation (thermostatic radiator valve and thermostatic head), by which they can regulate heat consumption, to seal doors and windows which cause energy losses and incite them to introduce energy efficiency measures. We have not recorded any complaints related to customer privacy or loss of personal data.

In the reporting period, a total of 15 complaints were recorded, 14 of which related to the quality of supply (metering, calculation or billing). One complaint referred to the quality of heat energy (temperature in the customer's facilities, temperature of heated water, technological heat parameters). All received complaints were refused as unfounded.

Dialogue with end customers

In order to establish if end customers are satisfied with HEP-Toplinarstvo, we conducted an anonymous survey in our Center in December. Customers were required to evaluate the quality of supplied heat (safety of supply, heating and hot water temperature), monthly bills for heat energy (costs), clarity of heat energy invoices, our responsive rate to inquiries and complaints, access to information on our services and our professionalism and expertise. Also, the survey enabled end customers to enter own opinions and remarks about our products and services. The survey covered 134 end customers, who were most satisfied with the level of professionalism and expertise of our employees. Survey results provided us with valuable indicators for future improvements and development of our customer relations.

Use of European funds for reconstruction

The existing distribution network is aged and requires intensified investment in revitalization. The methodology for determining the amount of tariff items for the distribution of heat energy prescribes that losses on the hot water network are accepted up to 10 percent. If the current network situation is such that the losses are exceeded, the energy company is obliged to draw up a loss reduction plan, to be approved HERA. In order to reduce the losses within the prescribed limits within the given time frame, a revitalization plan for the hot water network was created. An estimate of the necessary funds amounts to EUR 100 million, of which a certain part, as it is a project of energy efficiency, could be funded from EU funds.

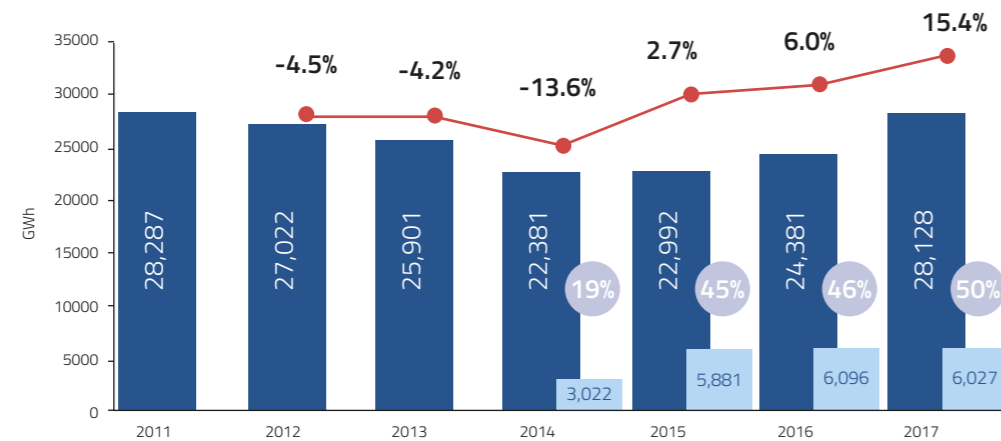
Within the Competitiveness and Cohesion Operational Program 2014-2020., EUR 80 million is allocated for the revitalization of the pipeline network, which will be implemented through the Integrated Territorial Investment instrument which for this financial period includes the urban agglomerations of interest to HEP-Toplinarstvo - Zagreb and Osijek.

In cooperation with the City of Zagreb, a project for revitalization of the hot water network is being prepared with the aim of reducing energy losses and increasing the efficiency of the district heating system in the city of Zagreb. Also, in cooperation with the City of Osijek a project is being prepared to increase the dimensions of the connecting hot water pipeline TE-TO Osijek - Toplana, also with the aim of increasing energy efficiency of the system and the reliability of thermal energy supply. In May 2017, a feasibility study was drafted for the project in Osijek, and at the end of the year it was in the final stage of construction. The feasibility study for the project in Zagreb was contracted in December 2017.

HEP-Opkrba plinom

Gas market in Croatia is heavily influenced by the happenings in Southeast and Central Europe and the market liberalization. Data on the total gas trade for 2017 (procurement and sale) indicate that HEP Group procures and sells on the Croatian market 50 percent of total energy needs for gas.

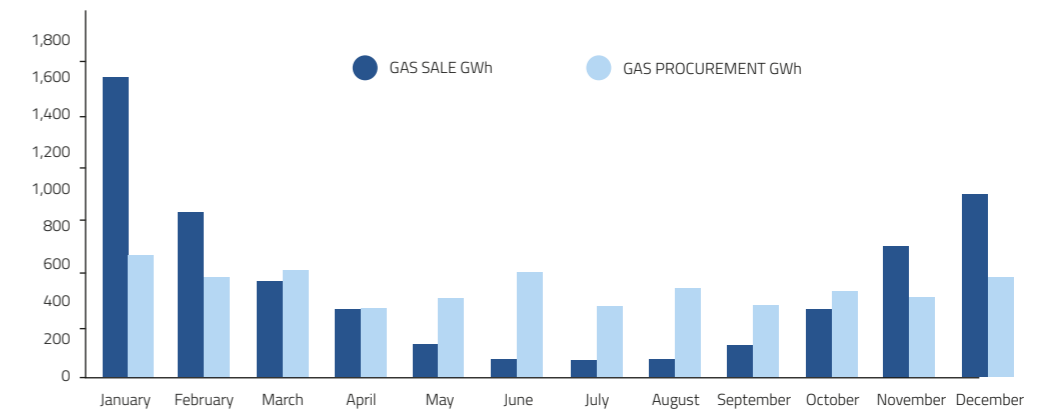
An increase in gas consumption is visible in 2017. A total consumption of gas in Croatia during 2017 increased by 15 percent, while the consumption of customers using the public service in 2017 was decreased compared to 2016 by one percent or 68,566 MWh. According to the transport system operator data, the total supply of gas to Croatian customers in 2017 reached 28,128 GWh, while the market share of HEP as the supplier in the wholesale market reached 21.4 percent, i.e. 6,027 GWh. Decrease of gas consumption in the universal service in 2017 does not present a significant decrease compared to 2016 but is the consequence of decrease of the number of suppliers obliged to provide public service who purchase gas on the wholesale market. One supplier in public service has not bought gas whom the wholesaler since April 1, 2017.



● Consumption in Croatia
● Consumption (wholesale)
● % change of consumption
● Market share of HEP Group
 Source: Plinacro d.o.o., HEP d.d.

During 2017, for supply purposes on the wholesale market a total of 5,746 GWh of gas was procured. In the same period gas suppliers in the public service were supplied with 6,027 GWh of gas. Gas stock in the underground gas storage decreased by 262 GWh compared to the beginning of the year and on December 31, 2017 it amounted to 2.261 GWh.

Procurement and sales of gas in 2017



Procurement and implementation of the IT system for gas supply - ISOP

HEP-Opkrba plinom finalized the installation and maintenance of software for operative and commercial support to manage gas portfolio. This upgrade fully encompassed business processes of managing gas portfolio in HEP Group. Besides other advantages, the system enabled faster supply of the allocated gas quantities to customers and comparison of announced and realized gas quantities. Since the introduction of the IT system, the precision of gas consumption forecast was improved, i.e. pre-nominating of the supplier in the public service which contributes to the more successful portfolio of the balance group organized and led by HEP. Since HEP balance group takes a total of 25 percent in the total gas consumption in Croatia, and during winter period over 40 percent on the daily level, faster and more precise announcement of gas consumption by residential customers contributed to the safety of the gas business.

HEP-Plin

Gas distribution and supply activities on the retail market are carried out in the Osijek-Baranja, Virovitica-Podravina and Požega-Slavonia counties, but since the opening the gas market HEP-Plin has begun supplying customers in thirty cities in other distribution areas.

During the reporting period significant investments were made in the infrastructure that enable the delivery of natural gas to new customers. Gas pipelines were built on seven locations in Slavonia. With this expansion, we invest in the quality of life of our customers, while investments are significant incentives for the local economy, which has access to new and affordable energy source.

The development objectives for the next period are focused on the plans for building, developing and modernizing the system, ensuring reliable and continuous distribution and supply of gas in accordance with the principles of public service, quality assurance of distribution and supply, ensuring competitiveness and educating customers on energy efficiency measures.

Gas losses during gas distribution and supply in 2017 amounted to 3.4 percent of the purchased gas volume and were as much as 14.4 percent lower than in 2016, which was achieved by taking the following measures: permanent pipeline monitoring and metering points at gas permeability, accuracy control of metering devices, control of metering pressure, and large customer compliance with gas meter capacity.

Energy balance of gas supply (in GWh)

	2016	2017	2017/2016 (%)
Gas procurement	1,375.8	1,460.4	6.1 %
Gas sales	1,375.8	1,460.4	6.1 %
To distribution for gas losses	53.8	46.1	-14.4 %
End customers	1,322.0	1,414.3	7.0 %
In HEP-Plin distribution area	1,189.1	1,228.2	3.3 %
In other distribution areas	132.9	186.1	40.0 %

HEP-Plin communicates with customers with all available channels: web page, mobile application mPlin and contact center. Informative-educational content and instructions to customers are provided on the web pages and in the mail with monthly invoices. We communicate content in several categories. Customer rights relate to gas pipeline construction and connection to transport or distribution system, supply conditions, supplier selection protection, contract management, transparent notification of consumption, complaints and the like. Information on customer duties includes obligations and responsibilities regarding device connection, ownership change, maintenance of connected devices, and other obligations. Additionally, we provide our customers with useful advice on responsible spending, energy efficiency, savings, maintenance of installations, and information on gas consumption factors.

In the reporting period no cases of non-compliance with regulations and voluntary codes relating to the impact of products and services on health and safety, product information and their marking, regarding marketing communications or complaints related to customer privacy violations have not been noted.

Customer center in Osijek

In order to improve customer relations in the gas distribution and gas supply domain, we decided to organize a contact center in Osijek. The introduction of the contact center information system in HEP-Plin business operations included the implementation, support and training of employees to meet high IT and technology support criteria in a complex business environment, flexibility and upgradeability in line with business development and legal changes. The Contact Center provided better contact with clients and helped improve the professionally-structured processes by enhancing the functionality of customer relationship management.

Number of customers

Customer category	2016	2017	2017/2016(%)
Residential TM1-TM4	70,045	69,392	99
Commercial TM1-TM8 (up to 1 mil. m ³)	5,384	5,289	98
Commercial TM9-TM12 (more than 1 mil.m ³)	12	15	125
TOTAL	75,441	74,694	99

TM = tariff model

Supply area	Number of customers
Osijek-Baranja County	62,466
Požega-Slavonia County	8,244
Virovitica-Podravina County	3,786
Other Counties	198
TOTAL	74,694

Cooperation with suppliers

As a sector purchaser, HEP is obligated to establish procurement according to Public Procurement Act, new since the beginning of 2017. The new act proscribed several important novelties: economically most favorable offer as the only criterium, introduction of European Single Procurement Document as bidder's statement that they fulfill all demands, obligation of prior consultations with interested economic subjects considering drafts of a part of the documentation in procurement for certain procurement procedures, partnership for innovations as a new kind of procurement procedure aimed at development and procurement of innovative goods, works or services. It also stipulated certain new exemptions from act implementation.

In adjustment to new regulation, Procurement Sector modified the procurement practice of HEP Group. Procurement document templates have been made, templates for framework contracts amended and new Rulebook on Procurement and Contracting was brought, as well as Rulebook on Simple Procurement in HEP Group.

In cooperation with member states, the European Commission made joint measures for "green" procurement. Between 2015 and 2017, HEP d.d. and HEP-Opkrba plinom conducted one procurement procedure each including "green" criteria. HEP was invited to participate in the working group for development of draft II of the National Action Plan for Green Procurement 2018-2020 with overview by 2023, under the Ministry of Environmental Protection and Energy. "Green" procurement is a voluntary instrument of environmental protection encouraging environmental protection and sustainable production. It is a recommendation, option or additional tool procurers can use in public procurement procedures. In its procurement documents, HEP does not allow the use of services and materials that can have harmful effect on health and environment.

Within public procurement according to EBRD rules with aim to contract replacement of Block A in EL-TO Zagreb by a new combined cogeneration block, Block L, special attention was given to avoiding the use of materials and matters harmful to health and environment, which was underlined in Employer's Requirements. All bidders very conscientiously approached these demands, due to HEP's demands, but also in line with internal rules of the companies or groups to which they belonged.

In 2017, HEP implemented 46 public procurement procedures worth HRK 566,988,230, out of which a 19 high-value procedures (HRK 524,598,430) and 27 low-value procedures (HRK 42,389,800). From that amount, the Procurement Sector conducted 38 public procurement procedures; 16 high-value and 22 low-value procedures. In addition, 1,156 simple procurement procedures were conducted, as well as 10 procedures of exemption from the application of Public Procurement Act.

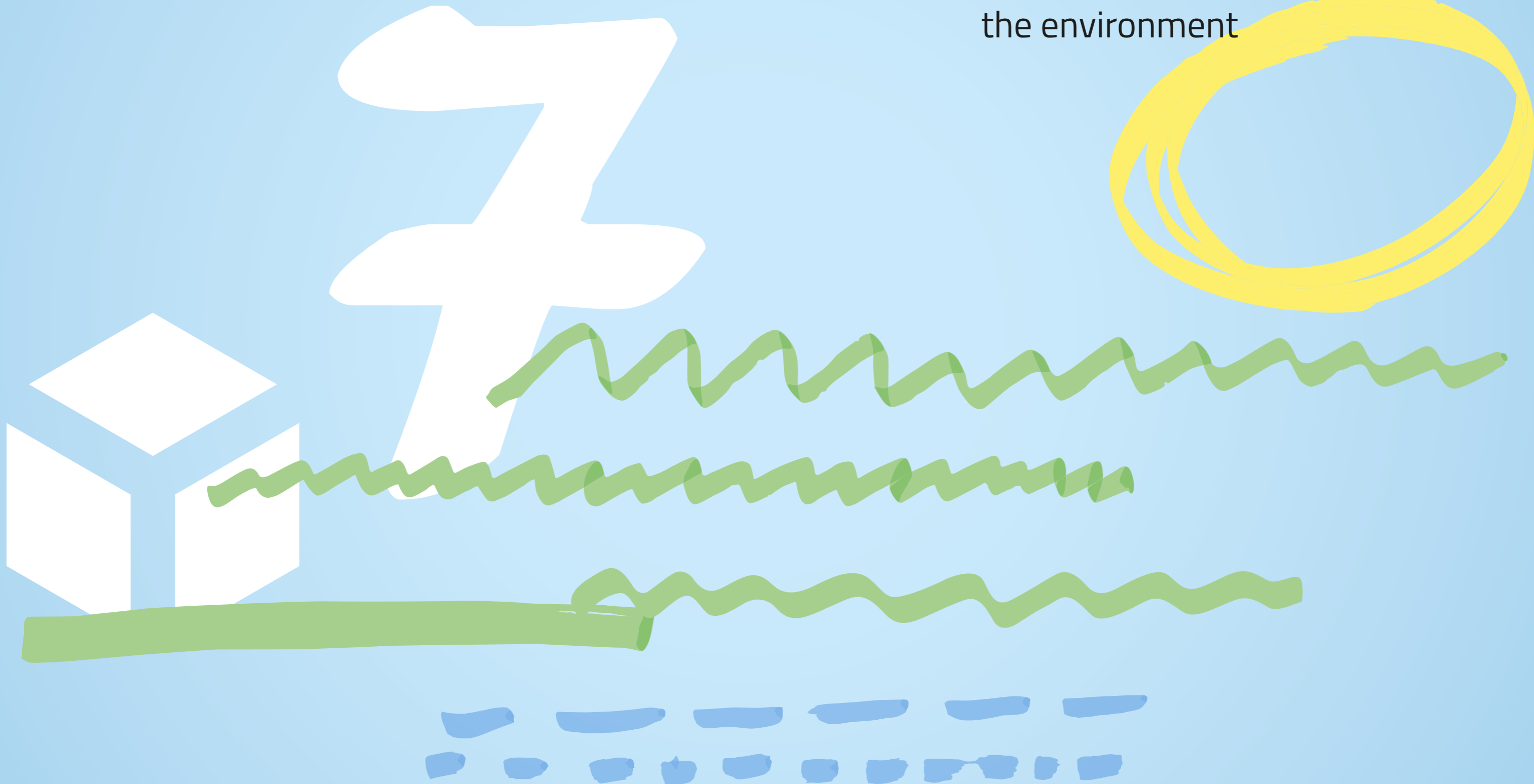
Structure of suppliers

Total		Number of suppliers	Procurement value (HRK)
1,374	Domestic	1,238	3,012,314,383.00
	Foreign	136	2,700,305,914.69

In accordance with the Public Procurement Act, procurers can reserve the right of participation in public procurement in these cases: protection workshops, economic subjects whose core goals is social and professional integration of disabled persons, persons in unfavorable conditions or can determine that these contracts pertain to protected employment programs. In case of reserving right to participate, bidders must have at least 51 percent of employees in these workshops, economic subjects or programs that represent persons with disabilities or on unfavorable conditions. Economic subject must prove to the procurer that they fulfill conditions by participating in registers, offering authorized body decision or in other applicable manner. In 2017, HEP held a public procurement procedure for personal protection equipment in groups and contracted one of the groups as reserved contract.

Due to extension of work on the revitalization of HE Zakučac, HEP initiated penalty procedure against the contractor, as well as against another one due to the extension of works on facility for decrease of nitrogen compound emissions (deNOx) in TE Plomin 2. In both cases, such situations were stipulated by the contract, and penalties are charged from the guarantees for regular contract fulfillment.

Caring about the environment



CONSTRUCTION OF FACILITY FOR
REMOVAL OF
NITROGEN OXIDES
 IN SMOKE GASES IN TE PLOMIN 2 WAS
 COMPLETED, WHICH DECREASES NITROGEN
 OXIDES EMISSIONS AND COMPLIES WITH
 THE LIMIT VALUE FROM
 THE ENVIRONMENTAL PERMIT.

7

Caring about the environment

Environment, quality and energy management systems

Implementation of integrated management system according to norms ISO/IEC 27001:2013, ISO 9001:2015, ISO 50001:2011, ISO 14001:2015 and BS OHSAS 18001:2007 started in March 2017 in HEP d.d. and HEP-Upravljanje imovinom. HEP Group is among the rate organizations introducing all five systems at once. In June 2017, first of a series of lectures and workshops for team members participating in the implementation of these systems was held, and they are scheduled to last until July 2018.

Integrated system of environment and quality management according to new norms ISO 14001:2015 and ISO 9001:2015 attested by TÜV Croatia certification firm has been implemented in HEP Proizvodnja since the beginning of 2017. This unified all management environment and quality management systems introduced in facilities in the past years. At the end of 2017, we commenced implementation of energy management system according to norm ISO 5001:2011.

Health and safety management according to OHSAS 18001:2007, first introduced in 2015, was attested in HEP ODS at the end of 2017. Supervisory audit for the environment management system was successfully finished in 2017 as well, confirming that the implemented system fulfills all demands of the international norm ISO 14001:2004. In the following period, HEP ODS will adjust the existing environmental management system with the demands of the new norm ISO 14001:2015. During 2017, HEP ODS continued the process to implement energy management system (SUEn) according to norm ISO 50001. Within these activities, a plan to measure significant energy consumption has been set up on 148 locations, which underwent detailed energy examination as well.

Extraordinary commitment and high level of customer care brought HEP-Opkrba's Customer Service certificate ISO 9001:2015 for service quality as the first in Croatia. In the second half of 2017, Customer Service prepared itself for the certification according to this norm; the process was successfully finished in the planned period, which led to obtaining ISO certificate for three years with obligatory annual recertification audits.

Implementation of integrated management system for quality, environmental protection and energy efficiency continued in HEP-Toplinarstvo in 2017.

Environmental management is the integral part of HEP Group operations. It entails continuous maintenance of compliance of activities with obligations stemming out of legal regulation from environmental protection area, management of chemicals, protection from noise and electromagnetic fields, and use of space in building new and/or reconstructing existing facilities. In 2017 there have been no cases of non-compliance with environmental laws and regulations.

Financial consequences and other risks and opportunities influenced by climate change

Depending on hydrological circumstances, HEP generates 30 to 60 percent of electricity in hydropower plants, i.e. using renewable energy source. During arid years, needs for electricity is covered by electricity generation in thermal power plants that use fossil fuels or by purchasing energy on the market. In 2017, two bio energy power plants fueled by non-treated wood pellets commenced production.

Higher generation in thermal power plants signifies higher CO₂ emissions causing climate change, but also higher generation cost for electricity, since every ton of CO₂ emitted from sources using fossil fuels with nominal heat energy higher than 20 MWt requires one emission unit. With a goal to maintain secure supply, HEP's production portfolio is comprised from sources which use different types of energy sources for electricity generation. After EU accession, Croatia has the obligation to decarbonize its energy sector, while goals that need to be reached by 2020 (-20 percent compared to 1990), 2030 (-40 percent compared to 1990, with EU-ETS sector -43 percent compared to 2005) are very ambitious, while the goal for 2050 is to completely decarbonize the energy sector or minimize CO₂ emissions to five percent of earlier emissions at most. While electricity is available on the market for purchase, heat energy and steam for industrial use need to be generated from own sources, i.e. thermal power plants for heat energy production and boiler facilities for heat production.

In order to secure uninterrupted supply, decrease environmental impact and modernize own production portfolio, in 2017 HEP continued to revitalize its hydropower plants and plans to construct as well as construction itself of small hydropower plants, use of heat accumulator in TE-TO Zagreb, construction and operation of two power plants fueled by non-treated wood pellets in Osijek and Sisak, procured electric vehicles for own needs and implemented e-mobility project.



HEP facilities successfully obtained environmental permits

All existing thermal energy facilities of HEP-Proizvodnja and HEP-Toplinarstvo with nominal heat energy exceeding 50 MWt have permits on integrated pollution prevention and control, so-called environmental permits, which are the condition for operations, i.e. production of electricity and heat energy, stipulated by the Environmental Protection Act.

During 2017, two applications for amendment of the environmental permits for TE-TO Zagreb and EL-TO Zagreb have been submitted, due to construction of new steam boilers, as well as an application for the extension of TE Plomin 1 environmental permit extension, due to unrealized construction of the replacement block on Plomin location which was to replace TE Plomin 1. Extension of TE Plomin 1 environmental permit was applied for because of the following: decreasing electricity import and diversification of HEP's energy portfolio, securing stable and reliable source of base electricity as a precondition for development and capacity increase of renewable sources, average of 900,000 MWh of produced electricity annually at competitive price in HEP portfolio, servicing regulation in the electricity system, optimal use of location, system and knowledge as well as maintaining workplaces in TE Plomin 1. The final decision on the launching the procedure of TE Plomin 1 revitalization will be brought depending on the results of feasibility study, which is underway.

Materials

During 2017, use of coal decreased by 46 percent compared to the previous year. This was the result of decreased number of coal-powered thermal power plants working hours, as a consequence of a fire in TE Plomin 1. Consumption of liquid fuel in thermal power plants and thermal power plants for heat production also dropped, by 28 percent compared to 2016, while the use of natural gas increased by 46 percent. Two bio energy power plants fueled by non-treated wood pellets commenced production in 2017. Use of liquid fuel in boilers for city heating remained on practically the same level as in 2016, while the consumption of natural gas decreased by 5.6 percent.

Quantities and types of fuels used in thermal power plants, thermal power plants for heat production and bioenergy power plants for heat production

Fuel type	2016	2017	2017/2016 %
Coal / x 10 ³ tons	970	526	72
Wood biomass / x 10 ³ tons	-	27	100
Liquid fuel / tons	49,180	35,475	72
Natural gas / MWh	4,691,849	7,233,047	154

Quantities and types of fuels used in boilers for city heating

Fuel type	2016	2017	2017/2016 %
Liquid fuel / tons	3,273	3,155	96
Natural gas / m ³	15,223,398	14,371,398	94

Energy consumption management

Consumption in power plants

Own consumption in hydro and thermal power plants in 2017

2017	kWh	kWh	kWh	kWh	
	Data supplied by HOPS	Data supplied by HEP ODS	House generator	Total own consumption	
Hydropower plants	without pump performance and compensation	7,430,785	14,276,802	11,275,409	32,982,996
	with pump performance and compensation	291,049,484	15,388,751	11,275,409	317,713,644
Thermal power plants	Data supplied by HOPS	Data supplied by HEP ODS	Difference in production on generators and electricity supplied into the network	Total own consumption	
	94,452,997	3,549,980	212,063,963	310,066,940	
Total without pump performance and compensation	101,883,782	17,826,782	223.339.372	343.049.936	
Total with pump performance and compensation	385,502,481	18,938,731	223,339,372	627,780,584	



ZelEn product and donation program awarded

Croatia Green Building Council awarded HEP Opskrba and HEP ESCO for the product and donation program ZelEn as one of the projects that marked 2017 with aiming to further encourage excellence in promotion and implementation of green principles in construction.

Awards were presented in seven categories, while HEP Opskrba and HEP ESCO won awards in the GREEN CONCEPT category for ZelEn product and donation program, as an example of socially responsible project that includes environmental protection, promotion of renewable energy sources, implementation of energy efficiency measures and cooperation with public sector institutions.

ZelEn electricity is produced exclusively from renewable energy sources, registered in the system of guaranteed origin managed by Croatian Energy Market Operator. This is a product for HEP Opskrba buyers that have chosen to operate socially responsibly, care about the environment and use electricity from renewable sources. HEP Opskrba collects means from the sale of ZelEn in a fund dedicated to the realization of renewable energy and energy efficiency projects for the needs of public sector institutions caring for socially sensitive populations - kindergartens, schools and homes. Projects were implemented by HEP ESCO.

Two cycles so far saw projects realized in six institutions: Rijeka branch of Ivana Brlić Mažuranić Children's Home from Lovran, Dugo Selo Kindergarten in Lukarišće, Sveti Ante Kindergarten in Prugovo near Klis, Cvrčak Kindergarten from Solin, Fran Krsto Frankopan Elementary School from Osijek and Požega's Catholic Elementary and Grammar School.

Own consumption in buildings

Energy Management Program follows energy consumption for four buildings in HEP Group's seat in Zagreb. Energy consumption data are monitored according to bills received by HEP Upravljanje imovinom.

Total energy consumption in 2017

Energy source	2016	2017	2017/2016 %
Electricity [kWh]	2,153,700	2,083,146	97
Heat energy [kWh]	2,272,000	2,204,000	97
Natural gas [m ³]	2,413	2,123	88

In 2017, HEP ESCO prepared and implemented a new procedure for collection of information on applied measures, as well as held a series of educations for energy managers and energy associates of HEP Group.

During the same year, HEP ESCO prepared HEP SGE Program for management of direct energy consumption, foundation of efficient energy consumption management and determined potentials for water and energy savings. In the first two years of program implementation, the focus was on setting up central registry of all buildings owned by HEP Group. Building registry now lists 976 buildings (buildings, office spaces, substations, exterior lighting systems etc.) used by HEP Group companies. Based on data analysis and in cooperation with energy managers, 129 priority buildings have been chosen to enter HEP SGE Program. ESCO Monitor application, business system for energy management providing support to energy consumption optimization, will be introduced in each of the buildings.



Smart buildings to smart cities

Smart project (Smart Building-Smart Grid-Smart City), commenced on January 1, 2017, aims to secure technological and legal framework for integrated energy management in buildings, distribution networks and main infrastructures of cities in the Danube region. In cooperation with the Faculty of Electro Engineering and Computing, as well as leading and various other partners, HEP works on a project with a goal to enable modular energy management between buildings and distribution network through Platform in buildings, networks and infrastructure tool.

This platform will be developed within the 3Smart project and tested on five pilot locations in five countries of the Danube region, among others on FEEC and HEP buildings in Zagreb. The project is co-financed from EU funds (ERDF, IPA) through Transnational Danube program in the portion of 85 percent. Total value of the project is EUR 3.79 million, which makes it one of the largest projects from INTERREG program. HEP Group participates in the project with EUR 444,485 or 12 percent of the total budget.

Energy efficient schools

TEESCHOOLS project (Tools for Energy Efficiency in Schools) initiated in February 2017 aims to encourage inflow of private funds into energy and other reconstruction of public buildings - in this case, the schools. Its participants, including HEP ESCO, will therefore develop, test and confirm an integrated system of tools to be used in all regions the project encompasses. Special attention will be given to the use of renewable energy sources. The project gathers 11 partners from seven countries - Italy, Spain, Greece, Croatia, Bosnia and Herzegovina, Cyprus and France.

Pilot-projects will include energy examinations of representative schools, development of preliminary reconstruction plans, calculations of CO₂ emissions after reconstruction and development of energy services model as well as financing schemes. Project is co-financed from the European Fund for Regional Development, through the Program of transnational cooperation which supports participation of private sector (SMEs) and NGOs.

Another project, FEEDSCHOOLSS, was launched in September, this time focused on creating conditions for increased development of integrated school buildings reconstruction by municipalities, financial institutions and consultants in the years to come. This project also gathers 11 partners from seven countries - Italy, Czech Republic, Poland, Hungary, Slovenia, Croatia and Austria. Partners from Croatia are HEP ESCO and the City of Split, with pilot activities implemented on the City of Split schools.

Emissions into air

During 2017, total emissions of CO₂ from HEP sources decreased by 12 percent compared to 2016. This is the result of an increase in the use of natural gas in thermal power plants and thermal power plants for heat energy production compared to liquid fuels and decrease in the number of working hours for thermal power plants powered by coal.

CO₂ emission intensity for produced electricity from HEP sources' production mix (TPP, TPP-HP, HPP and 50 percent of NPP Krško) for 2017 was 199 g CO₂/kWh.

Methodology and emission factors proscribed by Intergovernmental Panel on Climate Change (IPCC) are used in calculation of CO₂ emissions. HEP sources in the European greenhouse gas unit trading system (EU-ETS) submit Report on Emissions and Verification Report to the Croatian Agency for Environment and Nature by March 1 of the current year for the previous one. Verification of GHG emissions is performed by an independent certified verifier.

GHG emission allowances free of charge are allowed by the European Commission to HEP's sources for generation of heat energy, which have been transferred to central heating to so-called "carbon leakage" facilities, i.e. those facilities that could be outplaced to countries that are not EU ETS tributaries. Free emission units are provided based on the Operation Report, and allowed quantities can be changed depending on the production of heat energy for the previous year in line with reports operators submit to the Croatian Agency for Environment and Nature by January 15 for the previous calendar year. As in the previous years since its joining EU-ETS in 2013, HEP Group submitted emission units in legal term in quantities matching verified CO₂ emissions on all nine accounts open at the EU Registry.

CO₂ emissions from HEP sources

	2016	2017	2017/2016 %
Thermal power plants and thermal power plants for heat energy production / t CO ₂	3,190,090	2,780,074	87
Bioenergy plants / t CO ₂	-	36,967	100
City heating boilers / t CO ₂	37,161	33,353	90
TOTAL	3,227,251	2,850,394	88

CO₂ emissions from HEP sources in EU-ETS (nominal heat energy 20 MWh)

	2016	2017	2017/2016 %
Thermal power plants and thermal power plants for heat energy production / t CO ₂	3,190,090	2,780,074	87
City heating boilers / t CO ₂	605	190	31
UKUPNO	3,190,695	2,780,264	87

Free of charge emission units allowed to HEP sources in EU-ETS

	2016	2017	2017/2016 %
Thermal power plants and thermal power plants for heat energy production / t CO ₂	300,465	262,114	87
City heating boilers / t CO ₂	352	296	84

Considering the emissions from pollutants, in 2017 there were no cases of exceeding emission limits from HEP sources. All measures stipulated by the environmental permits in large combustion facilities have been implemented. During 2017, emissions of NO_x decreased by 40 percent, SO₂ by 55 percent, CO by 11 percent and solid particles by 51 percent in HEP's thermal power plants and thermal power plants for heat production compared to 2016. Similar as with CO₂ emissions, decrease of these emission is the result of a change in used fuel and decrease of working hours of coal fueled plants. Decrease of pollutant emissions into air in 2017 compared to 2016 was also recorded in city heating boilers - NO_x by 32 percent, SO₂ by 60 percent, CO by 11 percent and solid particles by 83 percent.

Emissions of pollutants into air - NOx, SO₂, CO and solid particles from thermal power plants and thermal power plants for heat production

Year	NOx t/year	SO ₂ t/year	CO t/year	Solid particles t/year
2016	4,615	3,172	252	140
2017	2,779	1,444	225	69
2017/2016 %	40	45	89	49

Emissions of pollutants into air - NOx, SO₂, CO and solid particles from bioenergy plants – BE-TO Osijek and BE-TO Sisak

Year	NOx t/year	SO ₂ t/year	CO t/year	Solid particles t/year
2017	26.74	3.56	29.7	56.77

Emissions of pollutants into air - NOx, SO₂, CO and solid particles from city heating boilers

Year	NOx t/year	SO ₂ t/year	CO t/year	Solid particles t/year
2016	25	15	2.8	3
2017	17	6	2.5	0.5
2017/2016 %	68	40	99	17



DeNOx facility construction in TE Plomin completed

Construction of facility for removal of nitrogen oxides in smoke gases (DeNOx) in TE Plomin was completed in 2017, and the facility was initiated into trial work. This implements the measure of decrease of nitrogen oxides emissions and reaching to comply to NOx emission limit value of 200 mg/Nm³ from the environmental permit. Facility for selective catalytic reduction was installed in the planned period and is in trial work since mid-December 2017. Selective catalytic reduction (SCR) as a secondary measure for the decrease of NOx emissions is one of the best available techniques for the reduction of nitrogen oxides emissions, compliant to European Commission's referent document which lists best available techniques (BAT) for reaching emission limit values in large combustion facilities (so called LCP BREF). Recorded NOx emission values in trial work are under regulated limit value of emissions.

Agents harmful to the ozone layer, i.e. controlled agents, can be found in cooling equipment, ACs, fire extinguishers and heat lifts. HEP Group collects data on quantities and use of these agents, while maintenance is conducted by licensed services.

In accordance with ozone layer protection regulation, HEP Group reported all machines and equipment that contains controlled agents or fluorine GHG in 5 tons of CO₂ (eq) or more in the electronic data base of immovable machines and equipment held by Croatian Agency for Environment and Nature.

Consumption of sulfur hexafluoride SF6 – HEP ODS

	2016	2017
Quantities of switchgear (pieces)	10,413	10,997
Facilities – high voltage switch gear and circuits		
Filling switchgear, SF6 (t)	28.42	29.61
SF6 leakage from equipment (kg)	53.29	32.44
Handling of gas SF6 and switchgear after the working life expiration (kg)	102.9	83.8



Filling stations for electric vehicles in Croatia - and preparations abroad

HEP d.d.'s Sector for Strategy and Development in charge of Team for e-mobility coordinated project applications for co-financing development project from EU sources. Deeds have been signed for projects EAST-E and NEXT-E, aimed at developing studies, acquisition of management software and setting up filling stations on European TEN-T corridor. Project EAST-E is in implementation, and activities are conducted in cooperation with consortium partners (ZSE, E.ON Czechia and GO4). Deed for the NEXT-E project has been signed in 2017, while ZSE, Tifon, Petrol, E.ON (Czechia, Slovakia, Romania, Hungary), BMW and Nissan partner on the project.

A total of 53 speed AC/DC filling stations, four ultra-speed stations and battery system as support to the system will be set up in these projects. Both project co-finance activities in the 85 percent portion. In 2017, participants worked on finalizing contracts on grants for bigEVdata project, representing predictive upgrade of the existing software and setting up different types of filling stations for electric vehicles across Croatia. In cooperation with local government units, businesses, distribution areas and interested public, 23 filling stations have been installed in 2017, aiming to further promote the new traffic system.

Biodiversity

HEP's thermal power plants are situated within urban or industrial areas and are not within eco-network Natura 2000 area or areas protected on national level. Certain protected areas are in the vicinity of production facilities, i.e. significant landscape Savica close to TE-TO Zagreb, or TE-TO Osijek which is close to the border of Regional park Mura-Drava.

Large number of HEP's hydropower plants are situated within Natura 200 eco-network, some are completely or partially in the nationally protected areas like national parks, nature parks, regional park and areas of significant landscapes.

HEP Proizvodnja HPPs and ecological network

HE / HES	Areas of protection significant for wild species and habitats	Areas of protection significant for birds
Hydro North		
HE Varaždin	HR 2001307 Drava – accumulations	HR 1000013 Drava accumulations
HE Čakovec	HR 2001307 Drava – accumulations	HR 1000013 Drava accumulations
HE Dubrava	HR 2001307 Drava – accumulations HR 5000014 Drava upper stream (from Donja Dubrava to Terezino polje)	HR 1000013 Drava accumulations HR 1000014 Drava upper stream (from Donja Dubrava to Terezino polje)
Hydro West		
HES Senj / HE Senj HES Senj / HE Sklope	HR 2001012 Lika Field HR 5000022 Velebit Nature Park	HR 1000021 Lika karstic fields HR 1000022 Velebit
HES Vinodol / CHE Fužine HES Vinodol / RHE Lepenica HES Vinodol / HE Vinodol	HR 2001353 Lokve – Sunger – Fužine HR 5000019 Gorski kotar and North Lika HR 2001042 Lič Field HR 2001300 Zebbar	HR 1000019 Gorski kotar and North Lika
HE Rijeka	HR 2000658 Rječina	-
HE Zeleni Vir	HR 2001345 Vražji prolaz and Zeleni Vir HR 5000019 Gorski kotar and North Lika	HR 1000019 Gorski kotar and North Lika
HE Gojak	HR 2000592 Ogulin-Plaški area	-
HE Ozalj	HR 2000642 Kupa	-
HE Lešće	HR 2000592 Ogulin-Plaški area	-
Hydro South		
RHE Velebit	HR 2001267 Ričice HR 2001268 Otuča HR 2001269 Obsenica HR 5000022 Velebit Nature Park HR 2000641 Zrmanja	HR 1000021 Lika karstic fields HR 1000022 Velebit
HE Golubić	-	-
HE Miljacka	HR 2000918 Krka Nature Park wider area	HR 1000026 Krka and surrounding plateau
mHE Krčić	HR 2000917 Krčić	
HE Jaruga	HR 2000918 Krka Nature Park wider area HR 3000171 Ušće Krke	HR 1000026 Krka and surrounding plateau
HE Orlovac	HR 5000028 Dinara HR 2000936 Rude	HR 1000028 Dinara
CS Buško blato	-	-
HE Peruća	-	HR 1000029 Cetina
HE Đale	HR 2000929 Cetina River – canyon	HR 1000029 Cetina
HE Zakučac	HR 2000929 Cetina River – canyon HR 2001352 Mosor	HR 1000029 Cetina HR 1000027 Mosor, Kozjak and Trogir hinterlands
HE Kraljevac	HR 2000929 Cetina River – canyon	HR 1000029 Cetina
HE Dubrovnik Plant		
HE Dubrovnik	-	-
HE Zavrle	-	-

HEP Proizvodnja system and protected areas

HE / HES	Protected areas
Hydro North	
HE Varaždin (operating since 1975)	Mura-Drava Regional Park
HE Čakovec (operating since 1982)	Mura-Drava Regional Park
HE Dubrava (operating since 1989)	Mura-Drava Regional Park
Hydro West	
HES Senj / HE Senj (operating since 1965)	Velebit Mountain Nature Park
HE Sklope	-
HES Vinodol / CHE Fužine	
HES Vinodol / RHE Lepenica	-
HES Vinodol / HE Vinodol	
HE Rijeka	-
HE Zeleni Vir (operating since 1921)	Vražji prolaz and Zeleni Vir significant landscapes
HE Gojak	-
HE Ozalj	-
HE Lešće	-
Hydro South	
RHE Velebit (operating since 1984)	Velebit Mountain Nature Park
HE Golubić	-
HE Miljacka (operating since 1906)	Krka upper stream significant landscape Krka National Park
HE Jaruga (operating since 1895/1904)	Krka upper stream significant landscape Krka lower stream significant landscape Krka National Park
mHE Krčić (operating since 1988)	Krka upper stream significant landscape Krčić significant landscape
HE Orlovac	-
CS Buško blato	-
HE Peruća	-
HE Đale	-
HE Zakučac (operating since 1961/1981)	Cetina River canyon significant landscape
HE Kraljevac (operating since 1912/1932)	Cetina River canyon significant landscape
HE Dubrovnik Plant	
HE Dubrovnik	-
HE Zavrle	-

During 2017, analysis of the best available techniques for the decrease of hydropower plants impact on habitats and species as well as measures from Water Areas Management Plan 2016-2021 was conducted. Implementation of measures will affect operating costs of existing hydropower plants their production abilities, and some of the conditions will limit possibilities of development and construction of new hydropower plants. Certain instruments of the Water Framework Directive which enable reconciliation of economic, social and environmental goals, will be aggravated for Croatia due to the fact that most existing hydropower plants, as well as most of the unused hydro potential is within the Natura 2000 eco network.

Within Natura 2000 areas significant for birds are more than 5,000 square kilometers of overhead mid voltage lines, which is around 20 percent of the total length of HEP ODS's overhead mid voltage lines. HEP is obligated to plan and construct energy infrastructure in these areas in a way to prevent and decrease risks for birds habituating there. Measures include 17 bird species from the Red List of Threatened Species:

- > Golden eagle (*Aquila chrysaetos*)
- > Eurasian eagle-owl (*Bubo bubo*)
- > White stork (*Ciconia ciconia*)
- > Short-toed snake eagle (*Circaetus gallicus*)
- > Western marsh harrier (*Circus aeruginosus*)
- > Hen harrier (*Circus cyaneus*)
- > Montagu's harrier (*Circus pygargus*)
- > Merlin (*Falco columbarius*)
- > Lesser kestrel (*Falco naumanni*)
- > Peregrine falcon (*Falco peregrinus*)
- > Red-footed falcon (*Falco vespertinus*)
- > Common crane (*Grus grus*)
- > Griffon vulture (*Gyps fulvus*)
- > White-tailed eagle (*Haliaeetus albicilla*)
- > Black kite (*Milvus migrans*)
- > Osprey (*Haliaeetus*)
- > European honey buzzard (*Pernis apivorus*)

Study was conducted in six HEP ODS distribution areas to determine the most critical parts of the mid voltage network for birds within Natura 2000 areas, in order to implement measures for protection from electrocution in cooperation with BIOM association ornithologists. The study was conducted in three phases, included on site check on 10 most risky micro-locations. Study results enabled ranking of overhead mid voltage network section in this area according to the level of electrocution risk. Locations tours of the riskiest locations also enabled a holistic approach in choosing methods for bird protection on different types of risky elements of the network. HEP invested more than HRK 1.5 million in protection equipment to prevent electrocutions.

In 2017, HEP-Proizvodnja obtained necessary permits to clean compensation pool of the GHE Golubić and reconstruct surrounding area, as well to displace drifts. Most of the useful volume of the compensation pool has been buried from years of use, which significantly decreased the production of the plant, but also the safety of it and the safety of the river's lower stream. Cleaning area is a part of the eco network which has set goals for preservation of the stone

crayfish (*austropotamobius torrentium*), species on the IUCN's Red List. The procedure included consultations with the interested public.

During 2017, there have been not pollutions, constructions or expansions of the plants, impacts on expansion of invasive species, pathogens or parasites, decrease of the number of indigenous species, changes of habitats, changes in natural processes, changes in underground water salinity or height. During 2017, there have been no reconstructed protected natural habitats.

A step further in bird protection

HEP ODS is dedicated to protect birds from electrocution, investing more than a million kuna in this annually. Apart from compliance with regulation on environmental protection, this ensures quality supply of electricity as well as management of maintenance costs and economic losses as a consequence of bird activity on distribution network.

Distribution network trunks hold over a thousand of white stork nests, and care for them would not be possible without HEP ODS employees. This cooperation enabled ringing of around 480 storks so far, with another 300 young storks in Lonjsko polje Nature Park, Međimurje County and Slavonija-Baranja by the end of 2017.

For more than 13 years HEP ODS secures preconditions for safe nesting of white storks on electricity trunks, and total number of nests keeps growing yearly. Protection activities for over a thousand nests in 2017 were conducted based on the new cooperation agreement in conducting protection, monitoring and ringing for the protected white stork (*Ciconia ciconia*). In cooperation with the Ministry of Environmental Protection and Energy and 14 county-based institutions for management of protected natural resources, HEP ODS was issued a special permit to implement activities aimed at securing preconditions for safe nesting of this endangered species. Protection in this case is twofold – it pertains to the protection of storks from electrocution, but at the same time, it secures the protection of the distribution network from negative impact of the birds. During the absence period (September 2016 to March 2017), more than 150 activities have been implemented to protect storks, like installation of nest carriers, replacement of used ones and bird protection from electrocution.

Over the years, implementation of protection measures developed into a cohabitation of white storks and HEP ODS workers, on all levels – from company seat in charge of coordinating activities and communication with experts, to field workers that regularly check carriers, implement protection measures and participate in ringing of young storks together with ornithologists.

Apart from storks, distribution network trunks in Dalmatia became home for another rare and endangered species, European roller, which were under 20 couples in the area. To prevent extinction, experts from the Institute for Ornithology of the Croatian Academy of Science and Arts have been, together with partners, engaged in a project for the last ten years entitled "European roller in Croatia – return from the edge". Since lack of space for nesting is one of the main reasons for the population drop, HEP ODS cooperates with the Institute for Ornithology of the Croatian Academy of Science and Arts and Institution for the Management of Protected Areas of Nature of the Dubrovnik-Neretva County to secure a safe habitat. In Elektrodalmacija Split and Elektra Zadar area trunks, over 20 birdhouses have been set at the end of April 2017.

Water management

Table shows quantities of withdrawn water and water works of this kind, quantities, and emissions of waste waters from thermal power plants and thermal power plants for heat production in 2017. Total amount of withdrawn and discharged water in 2017 remained on similar level compared to 2016. It only decreased in TE Plomin 1, which was out of operations because of a fire in May. There have been no sources significantly affected by water withdrawal, or natural habitats or species significantly affected by water discharges.

Data on quantities of withdrawn and discharged water, as well as quality testing results, are delivered in accordance to regulations to Hrvatske vode twice a year. Dedicated to improve business processes, manage data and plan more efficiently, this data is also available in HEP's internal electronic base INFOZOK (Information system of environmental protection).

Withdrawn water and waste water discharge types and quantities from thermal power plants and thermal power plants for heat production in 2017

Plant	Source	Water quantity (m ³)	Waste water	Treatment system	Discharge	Water quantity (m ³)
TE PLOMIN	Bubić Burrow	436,300	technological waters	treatment of waste waters, neutralization and depositing device	Čepić canal - sea	124,095
			rainfall from coal depot	lamellar settler		
			oily waters	oil separation		
	Public water supply system	10,054	sanitary waters	BIO device		5,537
Sea (cooling waters)	252,394,740	cooling waters	no treatment	164,056,581		
TE RIJEKA	Public water supply system	17,541	technological waters	treatment of waste waters, neutralization and depositing device	Sea	21,078
			oily waters	oil separation		
			sanitary waters	BIO device		
Sea (cooling waters)	0	cooling waters	no treatment	0		
TE-TO SISAK	The Sava River	298,093	technological waters	treatment of waste waters, neutralization and depositing device	Sava	9,199
			oily waters	oil separation		
	Public water supply system	5,901	sanitary waters	no treatment		5,901
	The Sava River (cooling waters)	42,429,466	cooling waters	no treatment		42,429,466

Plant	Source	Water quantity (m ³)	Waste water	Treatment system	Discharge	Water quantity (m ³)
TE-TO ZAGREB	Wells (+ public water supply system)	1,242,257	technological waters	treatment of waste waters, neutralization and depositing device	City sewage system	561,130
			oily waters	oil separation		
	The Sava River (cooling waters)	132,174,000	sanitary waters	no treatment	The Sava River	105,739,200
			cooling waters	no treatment	Savica Lake	26,434,800
EL-TO ZAGREB	Wells	956,926	technological waters	treatment of waste waters, neutralization and depositing device	City sewage system	119,290
			oily waters	oil separation		
	Public water supply system	3,414	sanitary waters	no treatment		
TE-TO OSIJEK	The Drava River	309,178	technological waters	neutralization	City sewage system	148,406
			oily waters	oil separation		
	Public water supply system	9,276	sanitary waters	no treatment	Palčić canal	11,662
			clean rainfall waters and rainfall waters from liquid fuel management system	oil separation		
KTE JERTOVEC	The Krapina River	28,605	technological waters	treatment of waste waters, neutralization and depositing device	Jertovec stream	13,799
			oily waters	oil separation		
	Public water supply system	927	sanitary waters	BIO device		
HE VINODOL	Public water supply system	870	sanitary waters	imhof precipitator	Dubračina stream	870
HE SENJ	Public water supply system	1,326	sanitary waters	BIO device	Sea	1,326

Waste management

During 2017, HEP Group produced a total of 3,704 tons of hazardous and 61,614 tons of non-hazardous waste. For all waste produced in HEP Group data is filed electronically according to types, quantities and locations of waste production in HEP's internal electronic base INFOZOK (Information system of environmental protection). Waste produced on HEP's locations is handed over to authorized companies with waste management permits. Waste is beforehand stored in temporary storage facilities built in accordance with regulation. HEP reports about the quantities and types of waste once a year to Croatian Agency for Environment and Nature via electronic Environmental Pollution Registry. There have been no significant spills caused by waste produced in 2017 in HEP Group.

Decrease of 51 percent in the recorded non-hazardous waste compared to 2016 is the result of delivery of increased quantities of flying ash and reaction calcium-based solid waste produced in the process of de-sulphurizing flue gases to companies authorized to reuse these kinds of wastes, decrease in the number of working hours for coal-fueled thermal power plants and the fact that companies that operate on HEP's locations are considered waste producers according to Waste Management Regulation (i.e. maintenance). Decrease of hazardous waste by 30 percent in 2017 compared to 2016 is the result of waste from fuel oil tank cleaning in 2016, donation of IT equipment and toner recycling.

Location of Plomin thermal power plants holds the only HEP's waste depot site, internal non-hazardous waste depot. It is used only for disposal of own waste made on the process of production of electricity from coal. Waste is disposed in accordance with waste management hierarchy. Pursuant to market demand, a part of the waste is submitted to companies authorized for waste reuse, and it is used as replacement for mineral raw materials. Internal waste depot recorded 15.533 tons of disposed non-hazardous waste.

HEP also takes over 50 percent of annually produced waste from nuclear power plant Krško, and consequently has to dispose a half its waste. In 2017 Krško produced:

- > Low and intermediate level radioactive waste (in volume): $5.38 \times 10^{-9} \text{ m}^3/\text{kWh}(\text{el})$
- > Low and intermediate level radioactive waste (in mass): $3.05 \times 10^{-6} \text{ kg}/\text{kWh}(\text{el})$ or 3050 $\mu\text{g}/\text{kWh}(\text{el})$
- > 148 stored packages of low and intermediate level radioactive waste, 32.1 m^3 in volume and 18200.66 kg in net weight
- > Considering that there was no fuel replacement in 2017, there has been no high-level radioactive waste production



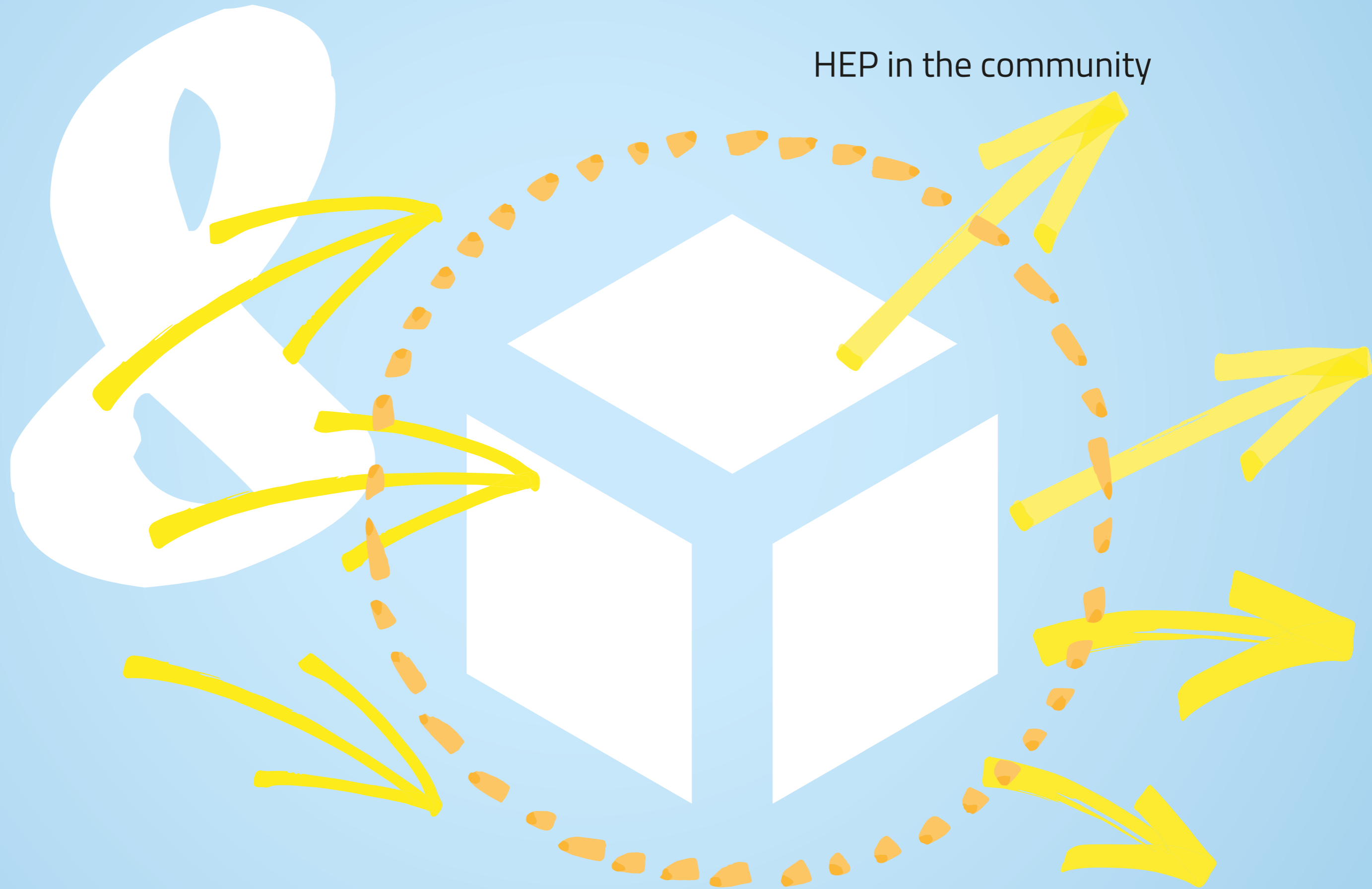
Circular economy in HEP

HEP's bioenergy plants for heat production BE-TO Sisak and BE-TO Osijek use untreated wood pellets as fuel in the production of electricity and heat energy. Applying waste hierarchy, HEP launched a research conducted by Faculty of Agronomy Zagreb on the possibility to use biomass ash on agricultural areas. Considering that soil in central, northern and eastern Croatia are acid, ash would serve to increase its pH value, i.e. decrease acidity and increase crop. HEP's Central Chemical and Technological Laboratory analyzed ash used in tests, and the results showed that ash can be used as soil ameliorator. As the amount of this ash increases, research on its use have been intensified in EU and in Croatia. The next step is to consider applying for EU innovation project grants in cooperation with institutions and partners. Goal of the project is to prepare ash for further use and distribution in agricultural production.

Environmental protection investments

Environmental protection area	Costs of regular operations (in HRK mils)	Investments (in HRK mils)
Air and climate	170.6	0.47
Waste waters	1.42	0.00
Waste	10.75	5.08
Protection of soil and underground waters	0.39	0.08
Protection from radiation	0.05	0.03
Protection of nature and landscape	9.23	2.73
Other	70.37	2.93
TOTAL, 2017	262.81	11.32

HEP in the community



HEP RECEIVED
"SHINE" AWARD, GIVEN TO COMPANIES
FOR VISIBILITY AND AFFIRMATION
OF SOCIAL RESPONSIBILITY AND
SUSTAINABILITY IN DIGITAL MEDIA.
THE AWARD WAS PRESENTED
BY "DOBRA HRVATSKA", BUSINESS
INITIATIVE IN PARTNERSHIP WITH
THE CROATIAN EMPLOYERS' ASSOCIATION.

8

HEP in the community

Public consultations and engagement

HES Senj/Kosinj

Public discussion on the Environmental Impact Study for hydro energy system Kosinj, one of the two parts of an integral project aimed to adapt existing Senj hydro energy system, started in the autumn 2017. Public presentation was held on November 3 in Perušić, with presentation of the study in presence of Lika-Senj County officials, representatives of HEP, media, NGOs, local community and owners of properties in the area.

Extensive research preceded the study, including over 50 experts in specific areas included in the study. Project phases were presented, along with their most important parts, those pertaining to repurposing of land into water habitat, project impact on local community and waters, cultural heritage, landscape and other. Bio speleological research in the HES Kosinj area was also conducted for obtaining the evaluation of the project impact on eco network. After the presentation of the project, representatives of ecological association, Eko Kosinj and Zelena akcija, posted questions and remarks on the study.



The Sava Program

Management model of the Program for the protection, regulation and use of Sava River and its bank from the border with Slovenia to Sisak ("Zagreb na Savi") recognizes two levels of stakeholder engagement into program development. The first group was determined by the Government decision and represents owners of the program considering its multipurpose structure. According to this decision, there are 13 stakeholders, which have been selected according to functional and territorial division. Along with strategic level, owners are represented on operative level, helping the development of the Sava Program. The project management regularly reports to owners on progress, thus allowing alleviated monitoring and timely intervention into progress development. Apart from regular operations, prior to adoption of midterm plans for activities and financing, the project management organizes individual meetings with stakeholder representatives to prepare bases for strategic decisions.

The second level of stakeholder engagement pertains to all parties interested in the development of the program, and has two activities. One is the work of Expert Council, gathering representatives of academic experts and NGOs. By participating in the Council, civil initiatives can influence the development of the program, while experts contribute with their knowledge and experience to decrease potential risks. Expert Council secures complete transparency of the development in communication with all interested organizations. Besides NGOs that participate in the Expert Council, part of the organizations showed interest in the development, but not in the participation in the Council. They are included via regular meetings, where they are informed on the details of developments, informed on future activities, and invited to participate depending on the level of activities and their expertise.

Research on nuclear energy presented

Study on the opinion of Croatian public about nuclear energy and radioactive waste, conducted by Faculty of Electric Engineering and Computing for HEP, showed the complexity of this issue. Research was conducted in the entire Croatia on 2,002 participants, and results were compared to those from other 27 EU member states. The study showed that most of the participants are poorly informed on the safety of nuclear power plants and that they think their risks are higher than advantages.

The highest level of trust is shown to scientists as source of information, and a third of participants supports development of nuclear energy conditionally. The highest resistance towards nuclear option is expressed in the eastern Croatia, while somewhat more favorable attitude is expressed by Zagreb and Istria County areas. Over a third of participants thinks that nuclear energy ratio should be decreased, while two thirds of them view nuclear power plants in Slovenia (Krško) and Hungary (Paks) as threatening and risky. Considering the location for the new nuclear power plant, most participant think it should not be constructed in Croatia, but rather in some of the neighboring or other EU states. Comparably, large number of other EU member citizens would prefer construction of a nuclear power plant in their country.

Survey results on radioactive waste showed that knowledge on that subject is very poor in Croatia. As many as 63.4 percent of participants could not answer whether radioactive waste is stores in Zagreb, while 69.6 percent of them does not know whether the potential nuclear storage in Croatia would only store radioactive waste from Krško nuclear power plant. The research partially confirmed hypothesis that the public does not favor nuclear power plants, that the level of knowledge is relatively low and that individual standpoints on nuclear power plants is in direct link to the level of knowledge on radioactive waste and nuclear energy.

Community investments

HEP donated HRK 11,045,743 in different social causes in 2017. Among the many projects these funds were directed in, HEP's donation tender "Light on the joint way" is one of the most known. This annual tender aims at providing donation funds for co-financing projects organized by NGOs and institutions. In 2017, organizations dealing with youth, art and heritage, environment, science and society as well as humanitarian associations were invited to apply for grants in March and April, while the results were published in June. A total of 1,055 valid applications arrived, out of which HEP chose 303 programs and projects for co-financing.



"Shine" award

HEP continuously cares about socially responsible operation and promotes ideas and values of sustainable development. This dedication was recognized on national level as well, so in 2017 HEP received "Shine" award, given to companies for visibility and affirmation of social responsibility and sustainability in digital media.

The award is presented by "Dobra Hrvatska", business initiative for affirmation of social responsibility and sustainability, in partnership with Croatian Employers' Association as the seat of UN Global Compact Croatian network.

Conducted research is thus far the biggest national research in CSR field. The goal was to examine how many Croatian companies, and with what level of quality, communicated their CSR and sustainability practices. Its goal is to encourage companies to communicate their CSR practices and endeavors in this field, to boost reputation as well as joint impact of companies to enlighten the public on inevitability of CSR and sustainability.

For science and education

IMAM ŽICU! Tying economy and education

HEP's IMAM ŽICU! award is Croatia's longest socially responsible project tying economy and educational system. Since 1995., HEP has been awarding achievements of pupils from elementary and secondary schools in the fields of mathematics, physics and, since 2005, electrotechnics. Thanks to this initiative, HEP awards all pupils with first places on state competitions in mathematics, physics, and public display of experimental works in physics for the past school year, secondary school pupils that win first three places on state competitions from electrotechnics fields, and 3rd grade students studying in electro mechanics or electro installation. In 2017, 38 pupils were awarded with HRK 2,500. Since the beginning of the project, HEP awarded 719 IMAM ŽICU! awards.

For out little geniuses

According to available data from ICILS from 2012, there are as many as 26 pupils on one computer in Croatia, while many schools have not had a serious equipment update in nearly a decade. HEP therefore donated computers to schools that have no equipment, have many students using or to those schools in locations of special state care. According to these criteria, nine schools were selected in 2016. HEP launched "For out little geniuses" action in 2015, aiming to secure better conditions for IT education for as many pupils possible, but also to raise awareness on the state of IT equipment in Croatian schools.

In the third year of the action, HEP donated 50 new computers for 15 elementary schools across Croatia. Including the donation cycle of 2017, HEP donated 150 new computers to 42 elementary schools since 2015, in total value of HRK 750,000.

Cooperation with science and education

HEP cooperates with academic institutions by joining their scientific and educational activities. With polytechnics in Split, Osijek, Zagreb and Rijeka, HEP signed annexes on providing scholarships to university students for HEP Group needs.

In November 2017, HEP participated in "Job Fair" at the Faculty of Technical Studies in Rijeka, where it presented its operations, projects, as well as possibilities of scholarships, employment and internships. HEP continuously enables pupils and students to attend professional trainings in accordance with school and university program, with expert mentoring. In 2017, 97 students and 416 pupils from different educational programs attended professional training in HEP.

Based on the cooperation framework with the Zagreb Faculty of Electrical Engineering and Computing, HED ODS and HEP ESCO joined the Summer Internship program. Following the tender for awarding scholarships for academic year 2016/17, a total of 26 scholarships have been provided by HEP Group, with signing ceremony organized in January 2017 in Split. HEP also provides sponsorship scholarships; in cooperation with Rotary Club Zagreb Kaptol, HEP supported long-term humanitarian action "A step into life" and gave eight scholarships to children without proper parental care.

For a safe step and clean environment

Assistance in mine clearing actions

Since 1996, there were 595 mine-related casualties in Croatia, 203 of them fatal. There are still 440.6 square kilometers of area possibly covered in mines, in nine counties and 61 cities and municipalities. In cooperation with Croatian Mine Action Center, HEP had been assisting in mine clearing action for years. The company invested HRK 65 million in mine clearing of its own objects, and has donated HRK 12.2 million since 2011 to the Croatian Mine Action Center. In the last 19 years, HEP invested HRK 77.2 million in mine clearing projects, returning 8.2 km² of clear land to the communities. HEP is also the only investor in mine clearing that remained in the system as a donor (and largest single donor among Croatian companies) after clearing own infrastructure.

In July 2017, HEP was presented with a thank you certificate for its donation of HRK 2 million for mine clearing in Stankovci, while Stankovci Municipality received confirmation that 176,231 m² of its territory is excluded from mine covered areas. HEP's donation in 2016 secured complete mine clearing for Bila Vlaka community, i.e. Ljut and Vlaka.

The best journalist works dedicated to environment

Dedication to preservation of environment HEP also show by encouraging and awarding journalism dedicated to environmental and nature protection. Since 1998, Environmental journalists' assembly of the Croatian Association of Journalists and HEP-Opkrba, which inherited the project from APO in 2016, jointly present "Velebitska degenija", award for best work in the field of environmental protection in print, internet, radio and TV journalism, as well as news photography.

In print and internet category, the award was given to Tanja Rudež for a series of articles published in Jutarnji list. For radio journalism, "Velebitska degenija" was presented to Tea Škrinjarić for "Čuvarkuča" program aired on Radio Quirinus from Sisak. Best journalist work in TV was Ivan Ćorkalo's piece "Garbage in Jasenovac" aired in "Provjereno" on Nova TV, while the best photographic work in 2016 was "Life on a sustainable estate" by Mirko Janković, published in Sensa magazine.

A step further in bird protection

HEP ODS is dedicated to protect birds from electrocution, investing more than a million kuna in this annually. Apart from compliance with regulation on environmental protection, this ensures quality supply of electricity as well as management of maintenance costs and economic losses as a consequence of bird activity on distribution network.

Distribution network trunks hold over a thousand of white stork nests, and care for them would not be possible without HEP ODS employees. This cooperation enabled ringing of around 480 storks so far in the past five years, with another 300 young storks ringed in Lonjsko polje Nature Park, Međimurje County and Slavonija-Baranja by the end of 2017.

Apart from storks, distribution network trunks in Dalmatia became home for another rare and endangered species, European roller, which were under 20 couples in the area. To prevent extinction, experts from the Institute for Ornithology of the Croatian Academy of Science and Arts have been, together with partners, engaged in a project for the last ten years entitled "European roller in Croatia – return from the edge". Since lack of space for nesting is one of the main reasons for the population drop, HEP ODS cooperates with the Institute for Ornithology of the Croatian Academy of Science and Arts and Institution for the Management of Protected Areas of Nature of the Dubrovnik-Neretva County to secure a safe habitat. In Elektrodalmacija Split and Elektra Zadar area trunks, over 20 birdhouses have been set at the end of April 2017.

A hundred green trees for HEP-Opkrba

For the fourth year in a row, together with current and future buyers of ZelEn, HEP-Opkrba workers planted trees in a HEP hydropower plant, this year its biggest, HE Zakućac. Planting 55 poplar trees for "Jure's poplars" alley, HEP-Opkrba symbolically joined the celebration of 55 years of this hydropower plant, as well as marking of "Kaštelan's days", manifestation organized by Omiš, Zakućac and Jure Kaštelan High School from Omiš.

In the past three years, within "100 green trees" initiative aimed at planting trees and landscaping surroundings in hydropower plants Ozalj, Kraljevac and Čakovec. This is also an action with which HEP-Opkrba wants to contribute to UN program "Billion green deeds", international movement to protect the planet and secure sustainable future.

Come rain or shine

Summer season 2017 will be remembered for great wildfires that took over the coast, especially Dalmatia, causing enormous damages. Fire took vast areas of pine woods, olive groves, shrubbery, several houses and vehicles, and seriously threatened settlements and people. The worst conditions were between Split and Omiš, and the extent of the damage included more than 200 trunks of low and mid voltage networks damaged or destroyed. Replacing 232 trunks, around 10,000 meters of cable, ropes and other material, 139 HEP workers on the field were helped by 14 cargo baskets, ten cranes, over 20 vehicles and around 15 subcontractor teams. HEP ODS workers showed once again to be heroes in extreme circumstances, assisting firemen in clearing areas, as well as securing normal electricity distribution in these areas.

Extreme weather conditions are a special challenge HEP services have to respond to in every moment to secure smooth energy supply. One of the extraordinary events in which HEP workers showed preparedness, dedication and professionalism was the snow storm which hit nearly entire Croatia in January 2017. Storm ridden parts of the country suffered damages and supply disconnection, mostly caused by large quantities of wet snow which weighted on cables and trees that fell on the trunks, leaving around 50,000 people without electricity. Despite the weather and grave conditions, HEP ODS workers immediately went to locations of the damages and initiated works to reestablish supply.

Fees for power plant spatial use in 2017 / HRK

Facility	Amount	City/Municipality	Share in fee
HEP PROIZVODNJA	68,995,353.21		
Hydropower Plant Sector	39,871,493.49		
Hydro North	8,152,603.13		
HE Varaždin TOTAL	3,090,860.01		
		Varaždin	14%
		Sračinec	22%
		Petrijanec	39%
		Cestica	25%
HE Varaždin	3,052,250.47		
		Varaždin	14%
		Sračinec	22%
		Petrijanec	39%
		Cestica	25%
mHE Varaždin	38,609.54		
		Varaždin	14%
		Sračinec	22%
		Petrijanec	39%
		Cestica	25%
HE Čakovec	2,500,782.11		
		Orehovica	5%
		Čakovec	25%
		Nedelišće	8%
		Varaždin	8%
		Trnovec Bartolovečk	46%
		Sveti Đurđ	4%
		Martijanec	4%
HE Dubrava	2,560,961.01		
		Prelog	43%
		Sveta Marija	12%
		D. Vidovec	2%
		D. Dubrava	3%
		Sveti Đurđ	24%
		Mali Bukovec	2%
		Veliki Bukovec	14%

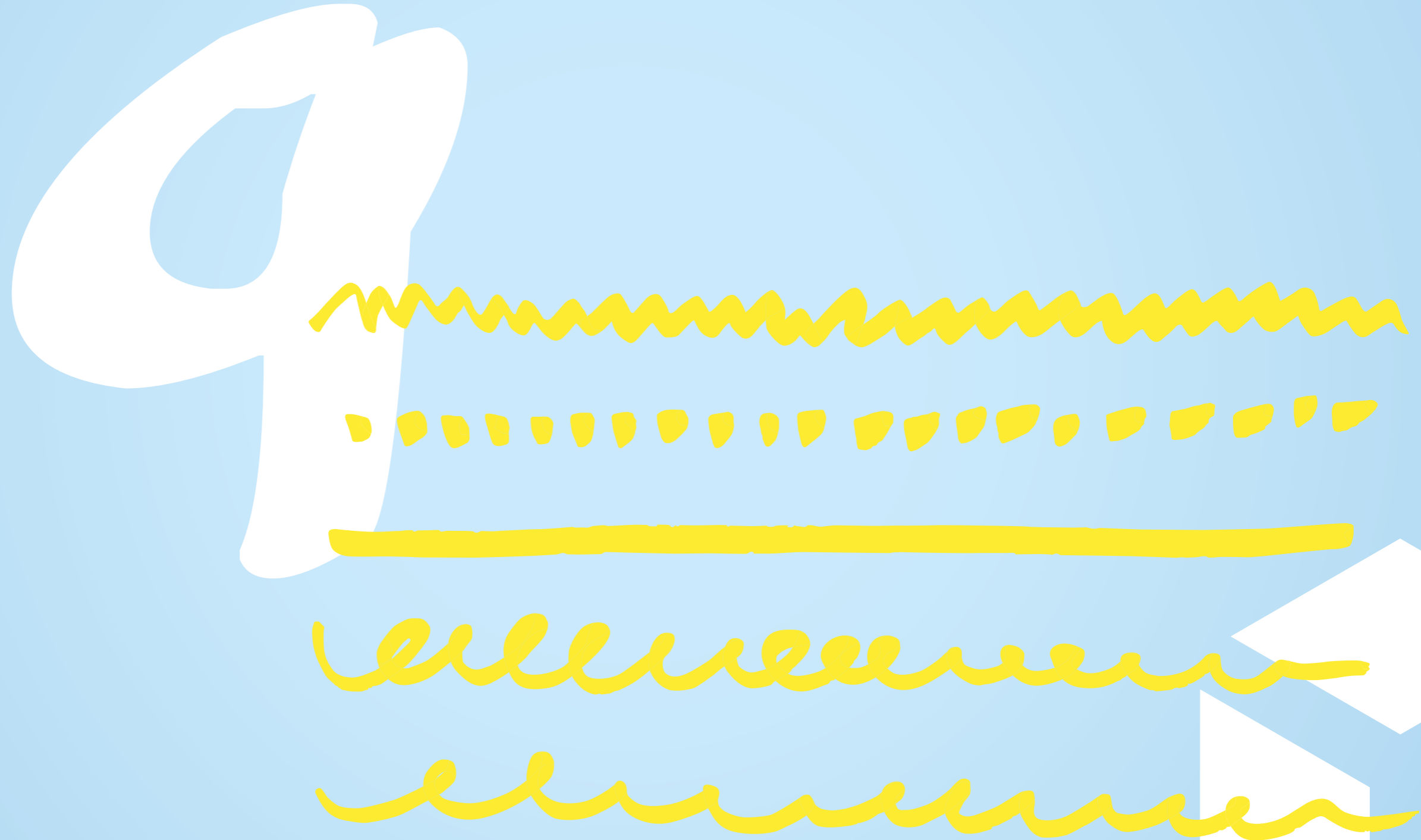
Hydro West	13,284,166.39		
HE Rijeka	717,140.02		
		Rijeka	64%
		Jelenje	36%
HE Vinodol	1,301,649.88		
		Vinodolska	22%
		Lokve	35%
		Fužine	40%
		Kraljevica	3%
HE Gorski kotar	53,725.59	Skrad	100%
HE Senj	8,199,745.75		
		Senj	18%
		Otočac	29%
		Perušić	29%
		Gospić	24%
HE Sklope	627,017.57		
		Perušić	20%
		Gospić	80%
HE Gojak	1,541,462.64	Ogulin	100%
HE Ozalj	133,752.86	Ozalj	100%
HE Lešće TOTAL	709,672.08		
		Ogulin	32%
		Generalski stol	23%
		Bosiljevo	45%
HE Lešće	638,616.22		
		Ogulin	32%
		Generalski stol	23%
		Bosiljevo	45%
ABM Lešće	71,055.86		
		Ogulin	32%
		Generalski stol	23%
		Bosiljevo	45%

Hydro South	15,049,918.18		
RHE Velebit	3,984,040.74		
		Obrovac	39%
		Gračac	8%
		Lovinac	41%
		Jasenice	12%
HE Đale	620,226.36		
		Trilj	26%
		Vrlika	29%
		Hrvace	20%
		Otok	25%
HE Kraljevac	362,244.31		
		Omiš	10%
		Zadvarje	90%
HE Orlovac	1,244,756.30		
		Otok	67%
		Trilj	33%
HE Zakučac and mHE Prančevići	7,326,485.10		
		Vrlika	22%
		Hrvace	14%
		Otok	19%
		Omiš	21%
		Trilj	24%
HE Zakučac	7,289,332.14		
		Vrlika	22%
		Hrvace	14%
		Otok	19%
		Omiš	21%
		Trilj	24%
mHE Prančevići	37,152.96		
		Vrlika	22%
		Hrvace	14%
		Otok	19%
		Omiš	21%
		Trilj	24%

HE Peruća	582,854.60		
		Vrlika	60%
		Hrvace	40%
HE Miljacka	632,602.61		
		Promina	50%
		Ervenik	22%
		Kistanje	28%
HE Jaruga	171,564.48		
		Skradin	38%
		Drniš	50%
		Šibenik	12%
HE Krčić and Golubić	125,143.68		
HE Golubić	118,949.06	Knin	100%
HE Krčić	6,194.62	Knin	100%
HE Dubrovnik plant	3,384,805.79		
HE Dubrovnik	3,360,838.09		
		Konavle	35%
		Župa Dubrovačka	65%
HE Zavelje	23,967.70	Župa Dubrovačka	100%

Thermal Power Plants Sector	29,123,859.72		
TE-TO Sisak	6,434,641.66	Sisak	100%
TE Rijeka	0.00	Kostrena	100%
TE Plomin I	2,913,371.05		
TE Plomin II	4,044,806.80		
		Kršan	64%
		Labin	18%
		Raša	6%
		Pičan	6%
		Sveta Nedelja	6%
KTE Jertovec	134,470.12	Konjščina	100%
TE-TO Zagreb	13,157,996.66		
TE-TO Zagreb	8,860,135.62	Grad Zagreb	100%
TE-TO Zagreb blok L	4,297,861.04	Grad Zagreb	100%
TE-TO Osijek	595,417.76		
TE-TO Osijek	484,850.87	Osijek	100%
PTE Osijek	110,566.89	Osijek	100%
EL-TO Zagreb	1,843,155.67	Grad Zagreb	100%
BE-TO Sisak and BE-TO Osijek			
BE-TO Sisak	32,590.84	Sisak	100%
BE-TO Osijek	50,173.20	Osijek	100%
TE Plomin d.o.o.	6,025,103.10		
		Kršan	64%
		Labin	18%
		Raša	6%
		Pičan	6%
		Sveta Nedelja	6%

Report profile and indicators



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Report profile and indicators

Sustainability Report for 2017 is the fourth consecutive report HEP Group published according to Global Reporting Initiative guidelines. The previous report was published for 2016. Report is composed in accordance with core option of the GRI Standard and includes data according to from Electric Utilities Sector Supplement in order to ensure higher transparency.

Prior to issuing separate sustainability reports, HEP Group has been reporting on its non-financial impacts for over a decade within their Annual Reports. In every new report we strive to increase the level of detail in our description of our impact on economy, society and environment as well as our way of managing those impacts. Feedback from our stakeholders will be helpful on this road of progress, so we encourage you to read this report and talk to us about its content. This report was not subject to external verification procedure, but it includes the opinion of Croatian Business Council for Sustainable Development as an expert stakeholder.

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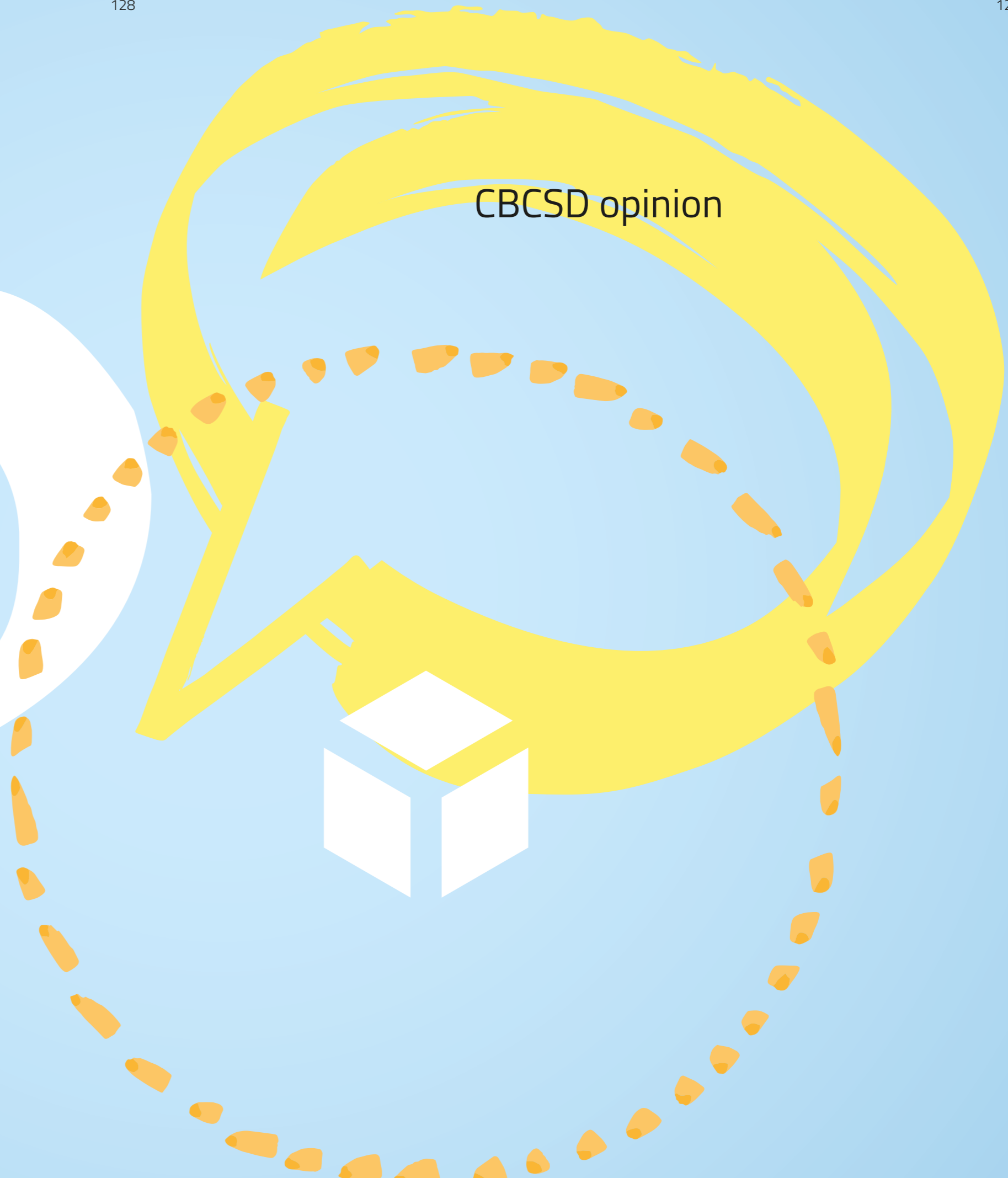
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CBCSD opinion





Hrvatski poslovni savjet za održivi razvoj
Croatian Business Council for Sustainable Development

Opinion of the Management Council Commission of the Croatian Business Council for Sustainable Development on the HEP Group Sustainability Report for 2017

Commission of the CBCSD Management Council read HEP Group's Sustainability Report for 2017 and determined that the report contains key demands from Global Reporting Initiative Standards, core option, and confirmed that the report is in accordance with the core option of GRI Standards.

The report offers extensive content, at the same time clearly presented and easy to read. Format of the report follows logical matrix and, in the introductory part, shows the structure and management of the organization, its financial and economic results and impact. The second part of the report shows HEP Group's relation to key stakeholders, employees and customers in detail, its key impacts on environment and its contribution to developmental and humanitarian projects in the local community.

HEP Group is a large employer, employing more than 10 000 people, and this was the reason why we carefully considered HEP's approach to them. Relation between compensations for men and women is underlined, with a certain difference between average minimum and entry-level salaries for women and men, explained by lower entry-level coefficients for women. We commend the introduction of individual work assessment of employees, gradually introduced in HEP Group companies, which shows advanced practice in HR management and care for employee satisfaction. There is a relatively low ratio of use of parental leave for men, in accordance with Croatian trend, but this opens the option for HEP Group to consider a more active approach to encourage men to use parental leave as a form of encouraging diversity and equal opportunity in the organization. This initiative would be in line with the fact that HEP Group is the signatory of the Diversity Charter Croatia.

The fact that HEP took responsibility to contribute to sustainable development through contribution to Sustainability Development Goals is commendable. HEP conducted a detailed research on stakeholder perception and its own estimate of SDGs to which it can take responsibility for contributing. After this analysis, it will be interesting to see in the coming years how HEP Group strategy will be aligned with impact management and contribution to Sustainability Development Goals.

Stakeholders have been actively engaged in the estimate of HEP Group material topics. Thorough analysis of stakeholders and their estimates of material topics has been made, while specific material areas have been evaluated and shown in the materiality matrix. It would contribute to the clarity of the report if the material topics have been more clearly connected with material topics of the GRI Standard and specific disclosures used in the reporting process.

Apart from the importance of HEP Group as one of the largest employers in Croatia, special attention of the Commission has been given to reported emissions, especially greenhouse gas emissions. As a producer of heat and electricity, HEP has special responsibility in managing GHG emissions, not only within the organization, but also its direct approach to total results of the Republic of Croatia and its ability to realize decrease of emissions which is its obligation as an EU member. The report shows that HEP is well aware of its responsibility, ambitious goals of the EU and its role in achieving them. In this context, HEP shows initiatives aimed at decreasing emissions. The biggest efforts are invested in development of hydro potential, by investing in small, CO₂ neutral hydro power plants. Beginning of operations of two bioenergy plants fueled by biomass, i.e. wood pellets, also contributes to HEP's positive balance in terms of GHG emissions. The report lacks account of long term strategic approach to investments in renewable energy sources, so we suggest that the company uses following reports to show the dynamics of planned investments in RES as contribution to SDGs. Here we need to underline another investment contributing to decrease of emissions – development of charging stations for electric vehicles, which is a direct encouragement to decreasing transport emissions in Croatia by developing infrastructure for e-mobility.

HEP Group report is a document offering many useful and clear information and is an excellent source of data on HEP's non-financial impacts in all sustainability areas. Additionally, the report contains many disclosures from sector supplement for electric utilities, which are of interest to expert public.

We thank HEP for substantial effort in this extensive yet clearly written report. We hope that in the following years we will have such clear source of information on HEP's non-financial efforts at our disposal.

HR BCSD's Managing Board Committee

In behalf of Committee

Mirjana Matešić, PhD, Director



**PUBLISHER:**

Hrvatska elektroprivreda d.d. Zagreb,
Ulica grada Vukovara 37
www.hep.hr

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SUSTAINABILITY REPORTING CONSULTANTS:

Hauska & Partner

GRAPHIC DESIGN:

Bestias

PRINT:

Cerovski, Zagreb

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