

# COMMUNICATION **ON PROGRESS IN 2020**



HUMAN RIGHTS



LABOUR STANDARDS



ENVIRONMENT



ANTI-CORRUPTION

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# STATEMENT of continued support

December, 2021



I am pleased to re-affirm the continued support of Kozloduy NPP EAD for the Ten Principles of the United Nations Global Compact on human rights, labour standards, environment and anti-corruption despite the ongoing global pandemic of coronavirus disease 2019.

With our latest Communication on Progress, we express our intent to continue implementing those principles, making the UN Global Compact and its principles part of the strategy, culture and day-to-day operations of our company, and engaging in collaborative projects which advance the broader development goals of the United Nations, particularly the Sustainable Development Goals.

We support public accountability and transparency, and therefore commit to report on progress annually according to the UN Global Compact COP policy and via the primary channels of communication.

Yours sincerely,

Nasko Mihov  
Chief Executive Officer

# About Kozloduy NPP

[Kozloduy NPP EAD](#) is the only nuclear power plant in Bulgaria and the main electricity generating plant. This determines the particularly significant position the company holds – being a factor of economic sustainability, both nationally and regionally.

Kozloduy NPP EAD is a single-owner shareholding company, with the Bulgarian Energy Holding EAD as the sole owner of capital.

Kozloduy NPP EAD operates two nuclear power units – Units 5 and 6, with WWER-1000 reactors, and two storage facilities for spent nuclear fuel – a spent fuel storage facility with underwater storage technology, and a dry spent fuel storage facility.

The operation of nuclear facilities is subject to regulatory control on behalf of the Bulgarian Nuclear Regulatory Agency (NRA) at the Council of Ministers of the Republic of Bulgaria. Specialised oversight is exercised by the Ministry of Environment and Water, Ministry of Health, Ministry of Regional Development and Public Works, State Agency for Metrology and Technical Surveillance, and other government bodies.

Environmental protection is a fundamental element of the company's policy. Due to the high safety standards, the gamma background within the plant area has not exceeded the levels measured prior to plant commissioning.

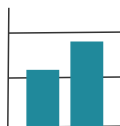
Kozloduy NPP is one of the major employers in Bulgaria providing a high standard of living for the company personnel and contributing greatly to the development of the country and the region.

The arrangements and strict application of the established measures for restricting Covid-19 spread ensured reliable operation of the nuclear power units and performance of the maintenance activities to their planned extent.



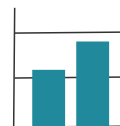
**40,8%**

Share of national  
electricity generation  
for 2020



**16,625,765 MWh**

Record of electricity  
generated in 2020  
for the entire operational  
life of Units 5 and 6



**379,694,218 MWh**

Total electricity generated  
by Units 5 and 6  
from 1987 to the end of 2020



The principles of the UN Sustainable Development Goals are an important part of Kozloduy NPP performance and resonate through our **MOTTO, MISSION, VISION, GOAL** and **CORE VALUES**.

## OUR MOTTO

### CLEAN ENERGY

## OUR VISION

is to continue being a reliable and safe nuclear power plant in the conditions of long-term operation, producing energy with care for the environment, and sustaining a sensible balance among quantity, quality and price.

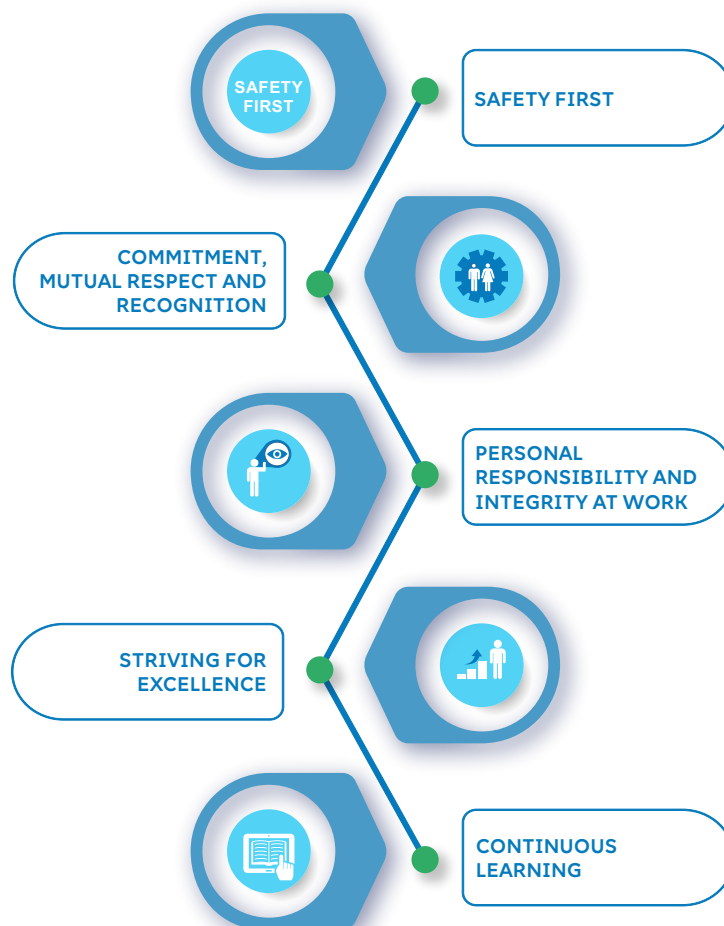
## OUR MISSION

is to reliably supply power to the country and the region through safe, efficient and environmentally friendly generation at reasonably low prices.

## OUR GOAL

is safe, efficient and environmentally friendly generation of energy, under long-term operation conditions and guaranteed quality and security of supplies, in compliance with the relevant national and international standards.

## OUR CORE VALUES





# HUMAN RIGHTS PRINCIPLES

## Principle 1:

Businesses should support and respect the protection of internationally proclaimed human rights, within the scope of their influence

## Principle 2:

Business should make sure that they are not complicit in human rights abuses



Kozloduy NPP EAD supports and respects internationally recognised human rights. Our goal is to operate in accordance with the UN Guiding Principles on Business and Human Rights and we declare it in the [Management Policy of Kozloduy NPP EAD](#).

As an industry leader, we obey the law, we embrace the spirit of integrity, and we uphold ethical business conduct in everything we do.

The Kozloduy NPP [Code of Ethics](#) published on our website, defines the main values that we share and the guiding principles we follow in business.

## Activities and results

Everyone in the Company is entitled to freely express their opinion on any issue and is treated with respect, courtesy, and fairness.

- Opinions section
- This week's question
- General meeting of employee representatives
- Meetings with plant management
- Boxes collecting opinions, complaints
- CEO reception day
- Questionnaires about different issues

In Kozloduy NPP workplace human rights take the form of non-discrimination, privacy, professional development and work-life balance.

### *Working at Kozloduy NPP:*

- Knowledge and understanding of the Company's overall aims and values
- Appropriate remuneration as per job position, and benefits
- Career development opportunities
- Skills development training
- Atmosphere of humanity, kindness, and mutual respect
- Two-way communication



# LABOUR STANDARDS

## Principle 3:

**Businesses should uphold** the freedom of association and the effective recognition of the right to collective bargaining

## Principle 4.

The elimination of all forms of forced and compulsory labour

## Principle 5.

The abolition of child labour.

## Principle 6.

The elimination of discrimination in respect of employment and occupation



The social policy of the Company is aimed at maintaining the employees' motivation regardless of the employee's ethnic origin, religion, political views, pregnancy or maternity, sex, age, nationality, language, sexual orientation, marital status or ability to perform, attracting and professional adaptation of young and highly educated specialists, equal opportunities for career growth based on performance results, support for the retired strictly adhering to the labour legislation. Women at Kozloduy NPP account for more than one third of the staff and are represented at various positions including responsible operator and management levels. The sense of belonging to the professional community and the affiliation to the values of the Company is supported also by the annual 'Best performer in...' award and the 'Safety First' collective contribution award, conferred on the occasion of the professional holiday – Power Engineer Day. The winners in the different categories are selected on-line in the internal information network of the Company.



The 'Safety First' collective contribution award was established in 2019 after the name of the long-time former Safety and Quality director, Mitko Yankov, and highlights the importance of strong safety culture, teamwork and leadership at the workplace.

The nuclear power plant provides for a number of leisure activities. More than 30 sports sections function within the Company. For over 35 years, the House of Culture has been an attractive cultural centre for Kozloduy citizens and guests. It provides very good conditions for training and creative work, for conducting concerts, ballets, show programmes, and theatrical performances for children and adults, for conducting conferences, workshops, showing exhibitions, etc.



## Activities and results

<b>3,674</b> Total number of employees at year-end 2020	<b>46 years</b> Average age	<b>17 years</b> Average work experience at Kozloduy NPP
<b>over 200</b> Newcomer specialists	<b>59%</b> Employees holding a higher education degree	<b>28%</b> Employees holding a secondary vocational education degree
	<b>31%</b> Female employees	<b>25%</b> Women in senior management roles

## RECRUITMENT PROCESS FOR WORKERS AND EMPLOYEES OF KOZLODUYNPP

- Compliance with the Law on Protection against Discrimination, the Law on Data Protection;
- Application of the national and international requirements in the professional recruitment process in nuclear facilities, Labour Code as well as relevant internal documents;
- Transparent recruitment process and opportunities for online access to information published on the plant website;
- Reduced working hours and benefit of additional paid annual leave for individuals working under specific working conditions;
- A collective labour agreement (for a period of 2 years – 2021/2022) between Kozloduy NPP trade union organisations and the management team of the Company, which regulates labour, social security and social welfare relations that are not regulated by mandatory provisions of the law, as well as all issues related to these relations;
- Equal rights for career development and growth.

## PERSONNEL TRAINING AND QUALIFICATION SYSTEM

- Compliant with the relevant national requirements, international standards and recognised best practices ensuring the provision of competent personnel for the long-term operation period of the power units;
- Training Centre licensed by the Bulgarian Nuclear Regulatory Agency for conducting specialised training of staff to perform activities in nuclear facilities, and work with ionising radiation sources;
- Classroom, hands-on and simulator training, on-the-job training and ESTRA-based online training used by plant and subcontractors' personnel.

**3,135**

Plant staff  
trained in 2020

**2,950**

External organisations'  
staff trained in 2020

**31**

Individual licences issued for  
work at nuclear facilities in 2020

## UPHOLDING EDUCATION

Kozloduy NPP is strongly committed to the professional development of the next generation of technical specialists and power engineers who will work for the safe and reliable operation of the nuclear facilities. This finds an expression in the support for early career guidance and sustainable increase of interest in STEM disciplines (science, technology, engineering, mathematics), which is related to the national priorities for economic development of the country.

In collaboration with the state and educational institutions, in particular vocational high schools, the nuclear power plant seeks to promote the attractiveness of secondary vocational education and to



encourage the choice of profession at the earliest stage possible. To that end, scholarships are provided to students studying in the "Nuclear Energy" and "Automated Systems" profiles in the vocational high schools of nuclear energy in Kozloduy and Belene. When choosing the target audience we have also taken into account the fact that these regions are potentially threatened by unfavourable demographic trends - labour migration of young people to cities that are district centres, and the capital. The information campaign and the excellent cooperation with the management of the two vocational high

schools contributed to the increase in the number of students willing to study nuclear energy related specialities.

With the combined efforts of the nuclear power plant and the educational institutions dual training was introduced in the Vocational High School of Nuclear Energy in Kozloduy, providing an opportunity to acquire specific professional knowledge. In response to the growing needs in the country for workers with technical qualifications, a new class with speciality "Mechanical Engineering Technician" has been created in the vocational high school in Miziya, in which 11 students have been admitted already in the first year.

The interest towards the scholarship programme for university students has been traditionally high. Students in nuclear-oriented specialities at the Technical University and Sofia University can apply for it. Scholarships are also provided to first-year students who have completed their secondary education with high grades and are enrolled in full-time studies. Kozloduy NPP ensures for its scholarship students the opportunity to expand their professional training by doing paid summer internships at the nuclear power plant. Thus, young people can add new skills and competences to what they have learned at the university and make informed choices for their future career opportunities. After graduation, they receive an offer to work in the acquired speciality, becoming part of the team of the largest electricity generation company in the country.

A number of other initiatives, such as participation in career forums, national and international events of the International Atomic Energy Agency (IAEA), the World Association of Nuclear Operators (WANO), FORATOM, Bulgarian Atomic Forum (BULATOM), Bulgarian Nuclear Society, Bulgarian Academy of Sciences and other worldwide recognised nuclear organisations, which were conducted on-line in 2020, are focused on supporting training.

With this Kozloduy NPP seeks to support young people in the process of their education and to motivate them to turn to promising technical specialities with excellent career opportunities.

## HEALTH AND SAFETY

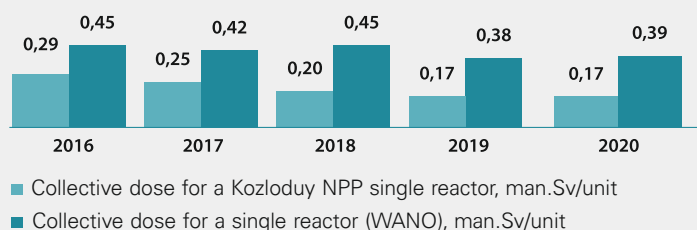
Maintaining health and safety at work is a major responsibility of Kozloduy NPP senior management. The plant has adopted a modern approach aimed at implementing highly effective health and safety measures, enhancing the safety culture of workers and building an awareness-based behaviour of compliance with the safety requirements. The requirements of the legislative regulations of the Republic of Bulgaria on occupational health and safety are strictly adhered to, and the best international practices in this field are applied:

- Protection and prevention of occupational hazards arising from work processes, work equipment and the working environment in all aspects of the nuclear power plant activities, such as operation, maintenance, repairs, etc.;
- Prevention and promoting of safety improvements at work: periodic training on safety at work, as well as delivering the necessary briefings - pre-job, on-the-job, periodic, daily and extraordinary ones;
- Risk assessment at workplaces and laboratory measurements of working environment parameters;
- On-site Occupational Health Service with its medical emergency team providing round-the-clock medical care;
- Recreation at the plant's R&R holiday facilities located both in the mountains and at the seaside.

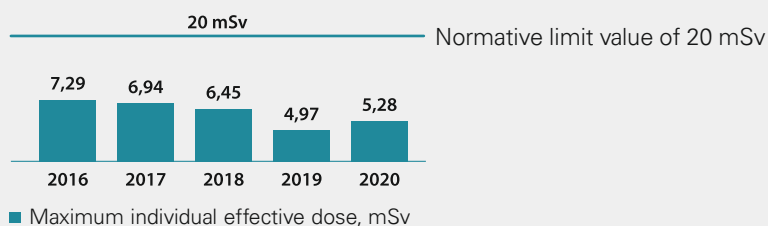
### Safety – our top priority

- Units 5 and 6 are operated in full compliance with the conditions of the licences, requirements of the technical specifications and operating procedures;
- Over 74% of the investment costs of the Company were used to ensure operational safety and secure the long-term operation of Units 5 and 6 for the next 30 years;
- Kozloduy NPP has adopted a systematic long-term approach to establishing and developing a strong safety culture (SC) as a mandatory requirement for safety enhancement;
- Systematically implementation of the ALARA principle (as low as reasonably achievable) for continuous enhancement of radiation protection effectiveness with annual values of the individual and collective dose exposure for 2020, which are significantly lower than the averaged data published in the World Association of Nuclear Operators (WANO) annual reports (individual effective dose – 5.28 mSv which constitutes 26.4% of the normative annual occupational exposure limit; total collective dose received during the operation of the two WWER-1000 reactors – 0.34 man.Sv);

COLLECTIVE DOSE FOR A SINGLE KOZLODUY NPP REACTOR COMPARED TO THE WANO INDICATOR, man.Sv/unit



MAXIMUM INDIVIDUAL EFFECTIVE DOSE IN THE KOZLODUY NPP CONTROLLED AREA, mSv





- The maximum annual individual effective dose to the public in the supervised area was conservatively calculated at 4.2  $\mu\text{Sv/a}$  for 2020, using microclimate data. The assessment employed verified and validated modelling programmes based on the CREAM methodology approved by the European Union, and the MODARIA platform of the International Atomic Energy Agency, both of which were adapted to the respective geographical and hydrological specifics of the Kozloduy NPP surrounding area. The results are subject to independent control by the National Centre of Radiobiology and Radiation Protection.

Specific indicators evaluating the safe and reliable operation of the nuclear power units have been adopted and widely used by the World Association of Nuclear Operators and the International Atomic Energy Agency. They permit monitoring the nuclear energy trends, and serve to draw a comprehensive evaluation of the achieved reliability and safety levels.

#### Values of specific performance indicators of Kozloduy NPP in 2020

Indicator	Unit 5	Unit 6
Load Factor (LF), %	90,08	91,91
Unit Capability Factor (UCF), %	88,24	97,50
Unit Capability Loss Factor (UCLF), %	0,00	0,30
Unplanned Reactor Scram Activation/7,000 hrs (UA7)	0,00	0,00

The excellent values of Kozloduy NPP performance indicators form a steady trend of high reliability and safety that allows the plant to retain its position among the well-performing nuclear power plants in the world.

In 2020, there were no violations of the operational limits and conditions for safe operation. Three operating events were registered and reported to the NRA. All of them were rated level 0 as per the INES scale (events without safety significance).

There were no reactor scrams at Units 5 or 6 during the year.





## Principle 7.

Businesses should support a precautionary approach to environmental challenges

## Principle 8.

Businesses should undertake initiatives to promote greater environmental responsibility

## Principle 9.

Businesses should encourage the development and diffusion of environmentally friendly technologies

### Kozloduy NPP regards protection of the environment with responsibility applying the relevant national and international standards.

The non-radiation aspects of the environment associated with the activity of the nuclear power plant are periodically reviewed and measures are implemented towards their management. The 2019-2021 programme main objectives focus on preserving the purity of atmospheric air, sensible and responsible use of water, safe management of waste, safe use of chemical substances, improving of energy efficiency, etc.

The Company has been issued all the necessary permits as required in the Environmental Preservation Act, the Act on Waters, and the Waste Management Act. The implementation of permits' provisions is monitored systematically. The results obtained are subject to analysis, while the information collected is communicated to the competent authorities.

### Activities and results

More than 1,600 tests of 350 samples from waste, surface and ground waters have been conducted within the self-performed, non-radiation monitoring in compliance with the 'Programme for in-plant monitoring of waters during the operation of Kozloduy NPP' and the 'Programme for monitoring of the landfill for non-radioactive household and industrial waste'. The analyses have been made by Kozloduy NPP accredited laboratories and by the Vratsa Regional laboratory at the Executive Environment Agency (ExEA). The results fully comply with the individual emission limits specified for the plant.

The nuclear power plant uses its own landfill for non-radioactive household and industrial waste operated in compliance with the regulatory requirements and good practices. The remediation of its first stage was successfully completed in 2020. The separate waste collection and utilisation of the generated non-radioactive waste contribute to the slower filling of the second landfill stage. Its free capacity was approximately 81% as at the end of the last year.

The Company employees participate regularly in various national and international eco initiatives along with the increasing use of bicycles, separate waste collection and striving to reduce the personal carbon footprint.

The first place in the category 'Green Educational Initiative' of the 'The Greenest Companies in Bulgaria' organised by b2b Media brought another recognition of the consistent efforts the plant makes to protect nature, and of the numerous initiatives aimed at enhancing the personal commitment of the Company team to the ecology.



Greenhouse and other harmful gas emissions saved in 2020 by Kozloduy NPP compared to conventional thermal power plants for the same period (in thousand tons)

**19 637**  
**CO<sub>2</sub>**

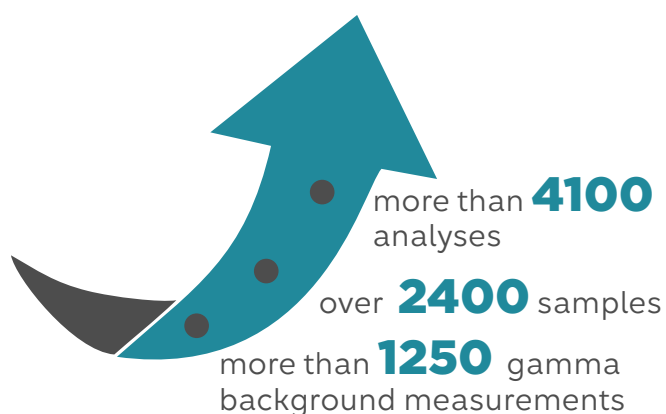
**64**  
**SO<sub>2</sub>**

**14**  
**NO<sub>x</sub>**

**0,2**  
**Ash**

The results throughout the year did not deviate from the natural gamma background levels specific for the region.

### **ZERO ENVIRONMENTAL IMPACT FROM KOZLODUY NPP OPERATION WITHIN THE 100-KM ZONE**



The results of the conducted measurements and analyses confirm that the values of the radiation gamma background do not deviate from the natural gamma background levels specific for the region. The radiation status of water from natural water bodies, and of drinking water as well as of the staple foods produced in the region – meets the health sanitary norms.

*The results are consistent with the data from the time period preceding the plant first start-up. The environmental radiation parameters remain stable, within normal limits, unaffected by the nuclear power plant operation.*

The environmental radioecological monitoring carried out by Kozloduy NPP fully complies with the national and European normative requirements in this field and covers the requirements of Article 35 in the Euratom Treaty, and Recommendation 2000/473/Euratom.





## Principle 10.

Businesses should work against corruption in all its forms, including extortion and bribery

Kozloduy NPP EAD opposes all forms of company or public corruption or corrupt practices, or other illegal activities in conformity with the UN Anti-corruption Convention to which the Republic of Bulgaria has been a party since 2006.

The [Code of Ethics](#) of Kozloduy NPP EAD covers specific information regarding conflict of interest, personal benefits and gifts, fair and equal treatment of suppliers and compliance with the UN Global Compact principles.

Investigations, law cases, resolutions or other events connected with corruption and bribery are conducted according to the requirements of relevant legislation and company documents.

## Activities and results

Some of the countermeasures taken by the Company against corruption practices are as follows:

- Regulated internal procedure for receiving and providing of donations;
- Strict accountancy, subject to internal and external auditing;
- Restricted cash payment and payments only by bank transfers;
- Reinforced awareness of anti-corruption issues with the Company employees, and ensuring possibilities to send signals on the hot phone line **+359 973 76262**; boxes for collecting signals in writing, located at different places across the plant site; providing a dedicated e-mail address: [signal@npp.bg](mailto:signal@npp.bg).

In 2020, due to the number of limitations imposed as a result of the Covid-19 pandemic, new communication methods were introduced and events were held online. This way of organising events has become a positive experience in respect of the collaboration between the experts from the Bulgarian nuclear power plant and their colleagues worldwide.

Kozloduy NPP took part in a series of programmes and projects of the UNGC Network Bulgaria for accomplishing the global sustainable development goals and implementing the 2015+ Strategic Plan of the Network:

- **Experts from the plant participated in a series of webinars on the topic of 'The Power of Internal Communications'** together with representatives of companies in different areas in order to share good practices in that sphere.
- The photo competition among plant personnel on the topic 'Kozloduy NPP and Nature – Co-Existence' was **dedicated to the World Environment Day 2020 the motto of which was 'Time for Nature' with focus on biodiversity**. The photos of the amateur photographers reflect the biodiversity retained in the area surrounding the nuclear power plant. Photos from the competition were compiled in a mobile exposition which opened officially in the plant on 5 June and was afterwards moved in front of the House of Culture in the town of Kozloduy. The album ['Kozloduy NPP – a Glance at Nature'](#) was compiled with materials from the competition dedicated to the 20-year anniversary of the beginning of the environmental management activities at the nuclear power plant.
- **Committed to dealing with the Covid-19 pandemic, in 2020** Kozloduy NPP provided financial support for a number of hospitals in the country and the region. Funds for purchasing of medical equipment for diagnosis and treatment were donated to the Military Medical Academy, Aleksandrovska University Hospital EAD, Pirogov Hospital and St. Sofia Hospital, all of them in the capital of Sofia. In addition to the financial support for St. Ivan Rilski Hospital in the town of Kozloduy, the Company provided the disinfectants and the personal protective equipment necessary for the work of the medics. Plant employees also contributed to the efforts for dealing with the pandemic on the territory of the municipality with personal donations for the Department of Internal Medicine of the town hospital.
- **Kozloduy NPP and the Military Medical Academy organised two successful initiatives for blood donation on the site of the power plant.**

With the awareness of a responsible corporate member of the public, the nuclear power plant strongly supports socially significant causes and regularly takes part in initiatives important to the society. The Company makes consistent efforts focused on human resources development, provision of health and safety at work, taking care of the region, the implementation of anti-corruption practices and environmental protection. Thus, the Global Compact principles and the UN Sustainable Development Goals are strongly integrated in the strategy, culture and day-to-day activity of the nuclear power plant.

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*Further information about the activity of Kozloduy NPP can be obtained from the plant [Annual Report for 2020](#)*

# COMMUNICATION **ON PROGRESS**



Kozloduy NPP EAD  
Kozloduy 3321  
Tel.: +359 973 7 21 00  
Fax: +359 973 7 60 19