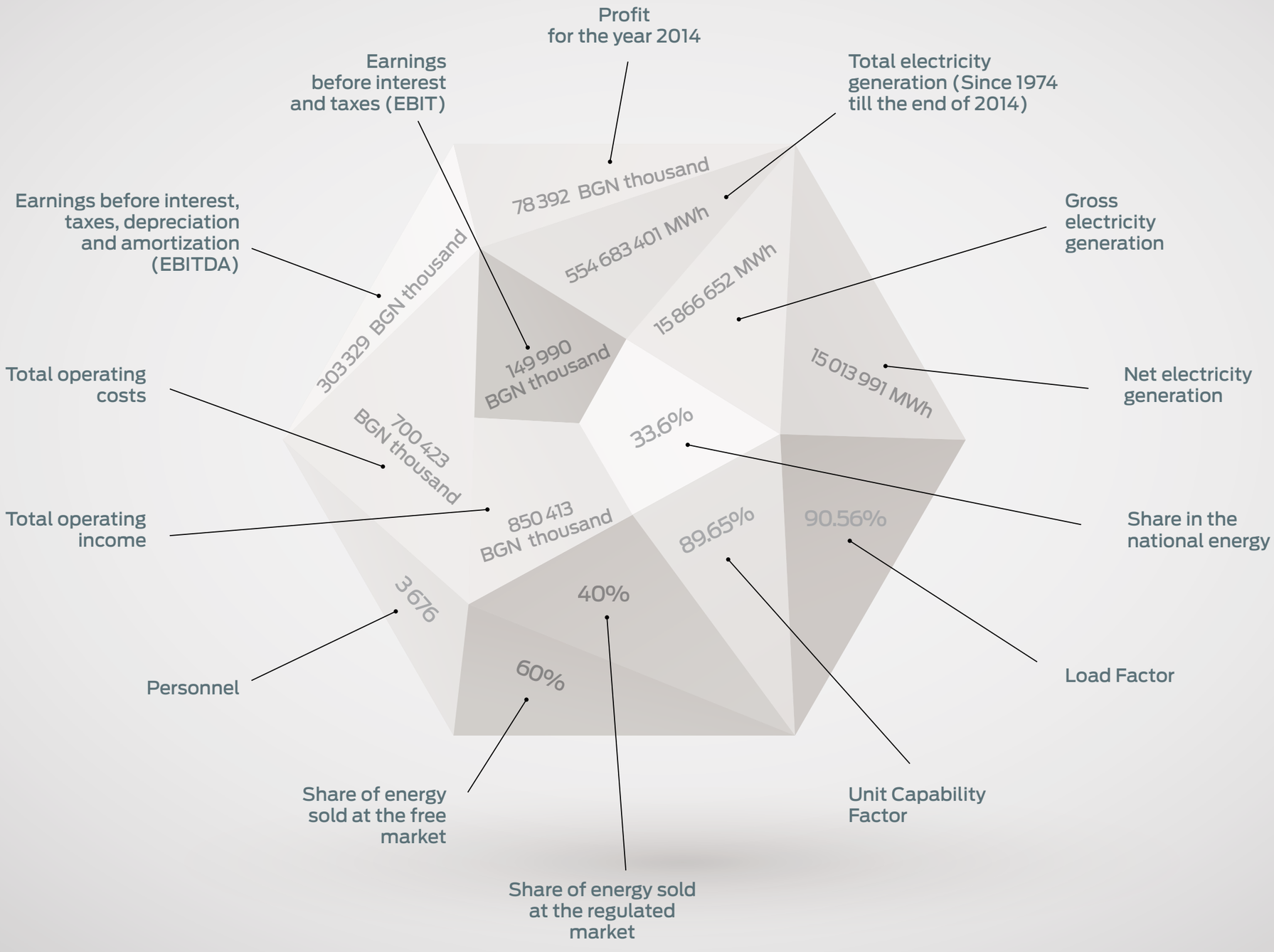
KOZLODUY NPP PLC

ANNUAL REPORT

2014

FACTS & FIGURES



Dear readers,

I have the pleasure to present the Annual Report of Kozloduy NPP plc for the year 2014. Publishing this document has become a long-standing tradition for us. We ensure transparency, provide comprehensible explanations of all aspects of our business activities, and maintain a continuous dialogue with the public.

The past year was particularly noteworthy for us. We celebrated 40 years since the start-up of the first nuclear power Unit – four decades of safe and reliable operation, steady growth and success. Four decades throughout which we have worked for the progress of our national economy, providing light and warmth to each and every home. Let us never forget that in 1974 Bulgaria became the eleventh country worldwide to effectively utilize the nuclear energy for peaceful purposes.

In 2014, Kozloduy NPP generated a total of 15 866 652 MWh electrical power (gross). The company has successfully performed both on the regulated and the liberalised market. This guarantees our financial stability, and makes us feel confident of planning all the activities related to Units 5 and 6 lifetime extension.

As always safety has been our top priority. In the summer of 2014 we hosted the OSART Follow-up Mission. It demonstrated that the plant had strictly observed the recommendations and suggestions included in the Exit Report of the operational safety reviews. The positive assessment we have received from the International Atomic Energy Agency is of high value for us as evidence, confirming that Kozloduy NPP has performed in compliance with the best international practices in nuclear energy.

Our plant management team works toward the highly significant goal of ensuring the future operation of the nuclear units. I believe that the excellent outcomes we are sharing with you in this Report will reassure you that Bulgaria will have a well-developed nuclear power industry in the decades to come.

DIMITAR ANGELOV
CHIEF EXECUTIVE OFFICER

MANAGEMENT SYSTEM

In implementation of its mission to provide safe, efficient and environmentally friendly electricity generation at reasonably low prices to the country and the region, Kozloduy NPP plc sets its long-term goal for safe and reliable operation of the nuclear power Units throughout their entire lifetimes in compliance with the licences issued by the regulatory bodies.

The Company Management declares to meet the following priorities in accomplishing its long-term goals:

– highest safety level;

– efficient and competitive production;

– licensed, competent and motivated personnel;

– financial stability.

Kozloduy NPP's management applies a Management System, integrating all requirements for nuclear power plant activities, to achieve safe, efficient and environmentally friendly energy generation of guaranteed quality and security of supplies in compliance with national and international standards. It incorporates all management aspects and provides for coordination in implementing the requirements for safety, health and safe working conditions, environment, quality and economy in such a way as to place safety as an overriding priority.

The objectives and tasks of each integrated sphere are manifested by the policies of safety, health and safety, environmental management, quality, security, economy, training and qualification of personnel.

Kozloduy NPP's MS is developed:

– in compliance with GS-R-3 „Facility and Activity Management System" and other applicable standards and IAEA Safety Guideline

– by considering the requirements of BNS EN ISO 9001 „Quality Management System. Requirements.", BNS EN ISO 14001 "Environment Management System", and BS OHSAS 18001 "Health and Safety Management Systems";

– by applying national and international regulations related to Kozloduy NPP Plc activity;

– process approach for control of implementation of activities and their interfaces.

The Management System uses step approach in applying the requirements for the implemented activities and their outcomes (product, service) for each process of Kozloduy NPP. The step approach is based on activity and outcome assessment according to specified factors by considering the following:

– significance and complexity of each product item or activity;

– influence of each product or activity on safety, health, environment, quality, security, economy by placing safety first;

– possible consequences of inadequately performed activity or product non-conformance.

Kozloduy NPP's Management System is developed by considering the specific character of the company organizational structure and management, the actual running processes and good practices, and it is focused on the future development with the collaboration of the entire personnel.

To comply with regulations, the nuclear facility operating utilities maintain quality assurance programmes to ensure the application of the MS in nuclear facility operation.

– Quality Assurance Programme for Kozloduy NPP Units 5&6 safe operation;

– Quality Assurance Programme for Spent Fuel Storage Facility safe operation.

Being a nuclear facility operating utility, Kozloduy NPP provides conditions for development and continuous enhancement of safety culture through the approved current Management System and safety receives highest priority and significance for the long-term success of the Company.

The current Management System of Kozloduy NPP is applied, evaluated and continuously improved to ensure safe, reliable and efficient operation of the nuclear facilities and implementation of the policies declared by Kozloduy NPP.

GENERATION

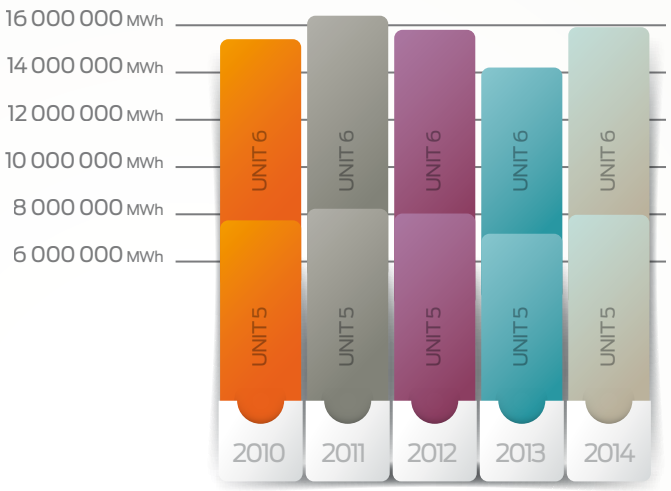
PRODUCTION PROGRAMME

ELECTRICITY GENERATION

2014 has been the second most successful year for Units 5 and 6 in terms of production since 2011 when the two Units set an electricity generation record.

The annual electricity generation (gross) amounted to 15,866,652 MWh showing a significant growth compared with 2013. The gross electricity generated by Kozloduy NPP in 2014 constituted 33.6 % of the national energy mix.

GROSS ELECTRICITY GENERATION



Throughout its 40-year operational history, from the commissioning of the first power Unit in July 1974 to 2014, Kozloduy NPP has generated 554,683,401 MWh of electricity in total in compliance with all the safety requirements governing the operation of nuclear facilities and without any impact on the environment.

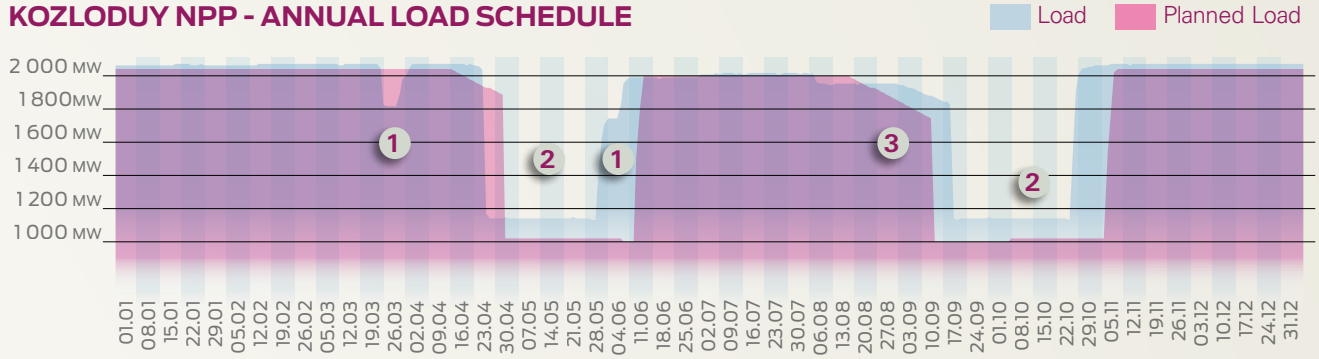
From its commissioning in 1987 to the end of 2014, Unit 5 has generated 146,930,749 MWh of electricity and Unit 6 has generated 136,756,695 MWh since its commissioning in 1991.

Throughout 2014, Kozloduy NPP was operated in compliance with the load schedule agreed with the Electricity System Operator plc. The nuclear power Units have been operated at the optimum mode and minimum downtime for maintenance and refuelling. No deviations with consequences for the production process and safety have been identified. For 2014, Kozloduy NPP has supplied to the national grid 15,013,991 MWh of net active electricity.

In view of the tendency towards broadening the electricity market in Bulgaria, in 2014, Kozloduy NPP has sold 40% of the net electricity on the regulated market, and the rest of it on the free market.

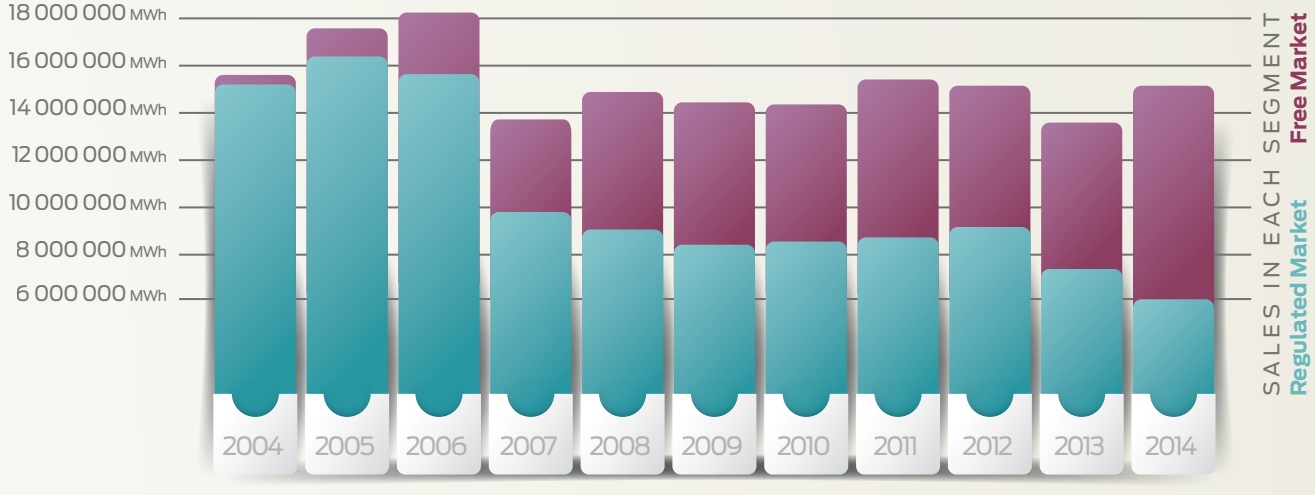
Being the first Bulgarian company to sell on the free market and successfully operating in a dynamic market environment for 10 years now, Kozloduy NPP has remained the major, preferred, and most secure supplier of electricity for 2014, too.

KOZLODUY NPP - ANNUAL LOAD SCHEDULE



Key:
1 – Load dispatching restriction
2 – Outage with refuelling
3 – Low-power operation due to a shift in downtime at Unit 6

ELECTRICITY SOLD BY KOZLODUY NPP ON THE REGULATED AND FREE MARKETS



SPECIFIC PERFORMANCE INDICATORS

The plant specific performance indicators reflect the complex impact of various factors on the production, reliability, and safety of the nuclear facilities.

The KNPP indicator values achieved in 2014 demonstrate a stable and high level of reliability and safety which exceed the average values reported for NPPs by the World Association of Nuclear Operators (WANO).

Load Factor (LF)

The provisions that have supported the optimum operating modes of the Units in 2014 have led to considerably higher LF compared with 2013. The increased generation has contributed to the good financial results achieved by the Company.

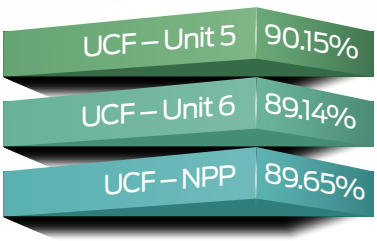
The UCF has reached excellent levels for the period due to absence of unplanned events related to underproduction resulting from technological problems. Its value is only determined by the outage duration.

In accordance with the WANO criteria, a UCF above 85% is indicative of a high level of plant reliability and safety.

Unit Capability Loss Factor (UCLF)

The indicator has demonstrated a high level of reliability in the operation of the Units (no events related to underproduction resulting from technological problems have been registered) and marked improvement in comparison with 2013.

In accordance with the WANO criteria, a UCLF below 3% is indicative of a high level of reliability.



Unit Capability Factor (UCF)

Grid Related Loss Factor (GRLF)

As a result of the established platform for optimal marketing of the electricity generated in 2014, the GRLF indicator has shown a significant improvement as compared with the previous year.

HEAT GENERATION

Kozloduy NPP generates thermal power thus providing for the heating of the households, as well as business, administrative, social, and other types of buildings in the town of Kozloduy. All the on-site buildings and compartments, where technological systems and other important equipment of the nuclear power plant are located, are provided with heating. The heat supplied to the end consumers throughout 2014 amounted to 77,960 MWh.

MAINTENANCE PROGRAMME

In order to support the operability of the main and auxiliary facilities of Units 5 and 6 (structures, systems, and components of the safety systems and safety and production related systems) as well as balance of plant facilities, annually, a number of maintenance activities are planned and performed. In accordance with a detailed schedule which takes into account the technological processes, manufacturer's requirements, Technical Specification requirements for safe operation, and licensing requirements, the following activities are performed:

– Preventive, minor, and intermediate maintenance and overhaul of mechanical equipment, electrical equipment, and instrumentation and control systems;

– Performance tests and inspections;

– Specialised inspections and diagnostics;

– Annual outages with refuelling.

The maintenance activities planned for 2014 have been performed to their full extent and with the required quality.

A stable trend towards minimisation of the planned outage downtime has been observed over the past years as a result of improved organisation and coordination of relevant maintenance, repair, and modernisation activities on equipment.

The annual outages have been completed with minimum downtime – 35 and 37 calendar days, respectively, for Units 5 and 6. Apart from all the activities required to ensure equipment operability and reliability and safe operation of the nuclear facilities, a large number of activities for complex assessment of the Units 5 and 6 equipment for Plant Lifetime Extension have been performed. A number of projects on the modernisation of main and auxiliary equipment have been successfully completed.

SAFETY

LICENSING REGIME

Being an operator of nuclear installations, Kozloduy NPP is subject to state regulation by the Bulgarian Nuclear Regulatory Agency (BNRA) at the Council of Ministers of the Republic of Bulgaria. The Ministry of Environment and Water, the Ministry of Health, the Ministry of Regional Development and Public Works, the State Agency for Metrology and Technical Surveillance and the State Agency for National Security also exercise specialized control over the activity of Kozloduy NPP.

The operation of Kozloduy NPP's Units 5 and 6 and the Spent Nuclear Fuel Storage Facility is in compliance with the operating licences issued by the BNRA.

The operating licence of the Spent Nuclear Fuel Storage Facility was renewed for a ten-year period on 25 June 2014.

In 2014, the activities related to the licensing of the two projects which are important to the future operation of Units 5 and 6 – lifetime extension and thermal power uprate – continued.

The lifetime extension project is being performed strictly following the national regulations and the licensing conditions as established. Based on the performed comprehensive assessment of the actual condition of the Unit 5 facilities, a Lifetime Extension Preparation Programme at Unit 5 of Kozloduy NPP has been developed. The programme was submitted to the BNRA in the frame of the established licensing period and was coordinated as an open document which could be expanded and modified should new information or circumstances occur.

As a result of the performed comprehensive assessment of the actual condition of the Unit 6 facilities, a Lifetime Extension Preparation Programme at Unit 6 of Kozloduy NPP has been developed. In December, the programme was coordinated with the BNRA as an open document. The Units 5 and 6 lifetime extension preparation programmes were launched.

In relation to the assessment and justification of plant safety, Periodic Safety Review is being carried out in the new licensing period. The BNRA approved the scope and the method of the PSR conduct. The activities are performed by stages and within the planned deadlines.

In 2014, Unit 5 and 6 reactor pressure vessel specimens were transported to the National Research Centre Kurchatov Institute, Russia, for the purpose of testing and study of the specimens in the institution accredited laboratories. This is closely related to the justification of the plant lifetime extension and provides the required evidence in support for the plant extended operation.

All the activities related to the implementation of the BNRA's requirements to the submitted design documentation under the Units 5 and 6 thermal power uprate project continued.

In 2014, since the licenses for the use of the ionizing radiation sources (IRS) for non-destructive examination, radiochemistry control, radiological monitoring, and metrology control for the transportation of radioactive material expired, the required procedures for their renewal were applied. Licenses for the utilization of ionizing radiation sources for a new ten-year period were issued.

SAFETY CULTURE

An important component for sustaining and enhancing safety at a nuclear power plant is establishing and developing of high safety culture. There has been established a Safety

Committee which is an advisory authority with the Safety and Quality Director since 2012. The work of the Committee is planned on annual basis and priority is given to the activities for establishing values, encouraging continuous safety culture enhancement. Thus, the foundations of systematic and continuous operation aiming at knowledge enhancement of the employees and recognizing the personal contribution and importance of everyone for ensuring safety are being strengthened.

Among the activities in this direction are the interviews conducted since 2012. Apart from obtaining information on the discussed topics and broadening their knowledge during the discussions the participants share their opinion and discuss issues of their concern. Thus, they gain confidence in their role and contribution to ensuring safety. The discussed topics are later summarized in order to analyse the causes and outline measures for their resolution.

In 2014, the implementation of the programme for experience exchange and operational safety enhancement in the fields of Safety Culture and Operational Experience began. In March a team of Kozloduy NPP visited the Romanian Cherna Voda NPP. Topics such as self-assessment indicator system and safety culture enhancement, human performance factors, operational experience application process, event reporting and event analysis, the reporting system, SOER approach (significant operating experience report) recommendation implementation, training on safety culture, etc. were discussed during the meeting. The Team of the Romanian plant visited Kozloduy NPP in July. The purpose of visit was to become aware of the company activity in safety culture and the application of the operational experience. The meetings coincided with the ongoing self-assessment of safety culture and the experts of Cherna Voda NPP took part in a focus group on the topic of High Safety Culture Characteristics - Safety is Knowledge Driven. The safety culture self-assessment methodology developed by the IAEA experts under the KNPP1 project, as well as the activities of Kozloduy NPP in the field of operational experience application were discussed in depth.

In the beginning of 2014, the second self-assessment of the company personnel began. Data were collected by five different methods – documentation review, written questionnaire, interview, observation of activities and meetings, as well as focus groups. After summarizing the results, the areas and topics of personnel concern were identified, strengths and weaknesses were defined, and suggestions for improvement, part of which were resulting from the personnel communication, were outlined

In September 2014, the Bulgarian Nuclear Regulatory Agency reviewed the work regarding safety culture enhancement at Kozloduy NPP. The conclusion of the committee was that the activities dedicated to safety culture are part of long-term systematic efforts planned and implemented annually.

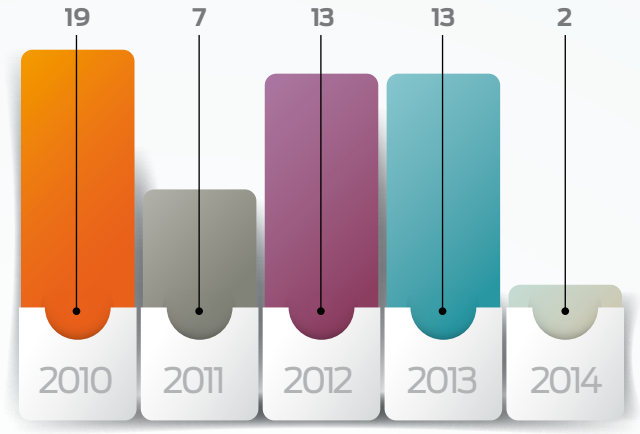
NUCLEAR SAFETY

Within the framework of the Unit 5 and 6 Modernization programmes and risk assessment (stress tests) carried out after the Japanese earthquake of 2011, a large scope of activities for equipment replacement, additional functionality checks, assessment of the safety related SSC were perfumed. The current instructions and procedures are periodically updated. The personnel training is carried out on a regular basis, which contributes to the continuous safety enhancement.

In 2014, only two operating events at Kozloduy NPP were reported to the BNRA. Both events were classified Level "0" which is below the INES scale (non-safety related events).

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

OPERATIONAL EVENTS



RADIATION PROTECTION

One of the company objectives for safety management is the effective protection of the plant personnel, population and environment against harmful impact of ionizing radiation. In order to sustain and enhance the level of radiation protection, Kozloduy NPP follows a policy of continuous application of the ALARA (As Low As Reasonably Achievable) principle. The principle is based on continuous improvement and optimization of the measures to limit the harmful impact of ionization radiation. The policy efficient implementation is based on the staff training and motivation, application of good practices from the plant and international operating experience, preliminary planning and preparation of annual outage activities, analysis of completed activities, and reliable and efficient radiation monitoring.

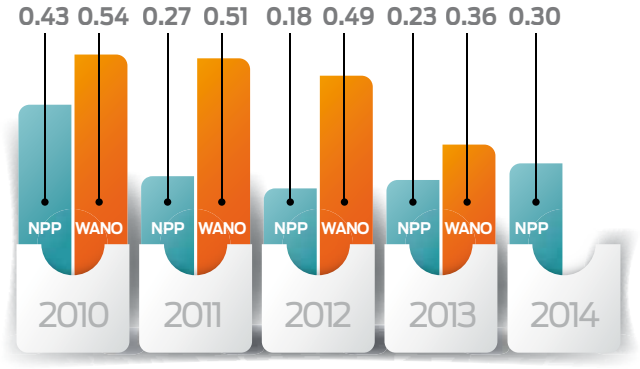
Although many and more complicated maintenance operations related to the operational lifetime extension of Units 5 and 6 as well as the plant power uprate to 104% were carried out, the annual individual and collective dose values again placed Kozloduy NPP among the best power plants worldwide. The maximum individual dose for the elapsed year is 9.08 mSv (45% of the statutory annual limit). The average collective dose for the two operating Units, WWER 1000, is 0.30 manSv/unit for 2014. According to the data from, WANO (World Association of Nuclear Operators) Annual Reports, this value is lower compared to the average value of the indicator for pressurized water reactors.

RADIATION MONITORING OF EFFLUENT DISCHARGES

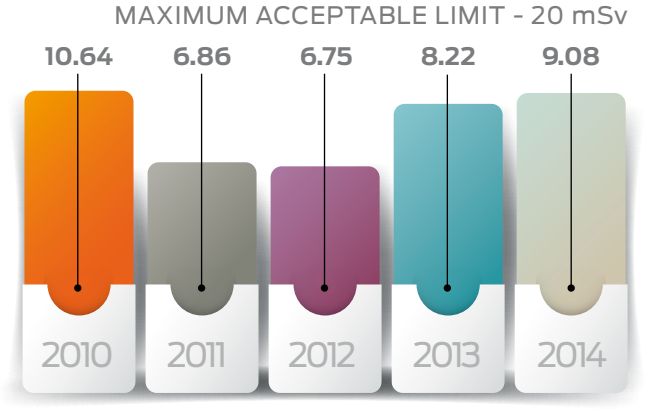
Year by year, Kozloduy NPP proves that it makes continuous and consistent efforts for rigid control over plant operation so as to prevent uncontrolled radioactive discharges to the environment. The results of the radiation monitoring of airborne and liquid discharges to the environment are indicative for the efforts made and the good plant operation.

The discharges to the environment are monitored by the Bulgarian Nuclear Regulatory Agency, the Ministry of the Environment and Water, and the National Centre of Radiobiology and Radiation Protection as they have to approve the allowable values of the radioactive substance concentration in waste water and air. They also perform independent monitoring of liquid and airborne discharges on site.

COLLECTIVE DOSE PER REACTOR (WANO), manSv/unit



MAXIMUM INDIVIDUAL EFFECTIVE DOSE FOR CONTROLLED AREA 2, mSv



In 2014, the concentration of radioactive substances in airborne discharges to the environment was also kept considerably below the maximum allowable limits. The amounts of discharged radioactive noble gases (RNG) are negligibly lower - 0.1%, airborne particles are below 0.5%, and 131I is below 0.01% of the permissible levels.

Since 2010, Kozloduy NPP has also been monitoring the content of ^{14}C and ^{3}H in the spent air. The discharges of ^{14}C are 2.6% and ^{3}H are 0.3% of the established plant allowable levels.

The contents of radioactive substances in the liquid discharges continued to be significantly lower than the limit levels and in 2014 the total activity (without tritium) of the drain water is 0,6% of the established monitored level. Tritium activity in the liquid discharges makes up for approximately 10% of the annual limit.

The concentration of the monitored radiologically significant alpha and beta emitters in the liquid and airborne discharges is negligibly low.

After the accession of Bulgaria to the European Union, information regarding all radiologically important components of the discharges is reported to the European Commission on an annual basis.

As a result of the low values of the radioactive substances discharged to the environment, the dose exposure of the population in the plant surrounding area is less than 10 μSv per year. It proves to be negligibly low and is compliant with the best international practices according to the studies of the International Commission on Radiological Protection (ICRP).

RADIOACTIVE WASTE MANAGEMENT

The radioactive solid and liquid waste (RAW) generated from the operation of Kozloduy NPP is handed over for treatment to the Specialized Enterprise Radioactive Waste of Kozloduy (SE RAW).

In 2014, 517 m^3 of compacted solid radioactive waste and 26 tons of non-compacted solid radioactive waste (RAW) were generated. The entire quantity was handed over for treatment. The emptying of solid RAW temporary storage facilities located in the EP-2 Auxiliary Building 3 continued and a total of 60 m^3 waste was handed over during the year.

The generated amount of liquid radioactive concentrate (still bottoms) while treating contaminated waters amounted to 138 m^3. The radioactive concentrate is handed over to SE RAW of Kozloduy for final treatment according to the integral RAW management programme of Kozloduy NPP. At the liquid RAW storage facilities a trend towards an increase in the free volume of tanks was observed.

SPENT FUEL MANAGEMENT

The spent nuclear fuel (SNF) at Kozloduy NPP is stored in compliance with all safety requirements. After being kept for a certain period in Spent Fuel Pools, the fuel is transferred to the 'pool type' spent fuel storage facility, which is common for all the Units. The assemblies are stored in Constor 440/84 type casks in the SFSF. The spent nuclear fuel removed from Units 1, 2, 3, and 4 is stored at the Dry Spent Fuel Storage Facility. Upon storage at the SFSF, part of the Kozloduy NPP's spent fuel is returned to Russia for reprocessing and long term storage.

Two hundred and forty WWER-440 type spent fuel

assemblies were sent from the Spent Fuel Storage Facility to Russia for reprocessing, and 252 spent fuel assemblies moved to the Dry Spent Fuel Storage Facility.

In 2014, the spent nuclear fuel in Kozloduy NPP's Units 5 and 6, as well as fuel in the Wet and Dry Spent Fuel Storage Facilities was inspected 16 times by the BNRA, IAEA, and EC.

EMERGENCY PLANNING AND PREPAREDNESS

Emergency planning is a system of measures developed within the emergency plan of Kozloduy NPP in order to limit and mitigate theW consequences of nuclear, radiation or other emergency, natural disasters and catastrophes. In order to maintain effective organization and high emergency preparedness of personnel, classroom training, exercises and drills according to specific scenarios are planned and carried out annually.

On 25 and 26 November 2014, a general emergency exercise in the frames of the National Full-scope Exercise Protection 2014 was carried out. One of the main objectives was to inspect the preparedness of the national, regional and local authorities and emergency response forces in case of a severe accident at the nuclear power plant. The exercise was conducted according to a preliminary scenario stating that "a strong earthquake made both plant Units cut off from the national grid; demolition of the on-site buildings and facilities; full blackout of Kozloduy NPP; radioactive material discharges to the atmosphere, and fire in the oil storage facility". During the exercise, the emergency response teams demonstrated a high level of preparedness and good coordination with the external structures and institutions in compliance with off-site emergency plan of Kozloduy NPP.

It was for the first time that during the National Full-scope Exercise Protection 2014, the joint security access control point located at the border of Urgent Protective Action Planning Zone operated with the Joint Information Centre whose objective was to provide information to the general public and the media.

SECURITY

The security system of Kozloduy NPP is designed for protection of nuclear installations and nuclear material, as well as providing the general security of the nuclear power plant.

Based on the analysis of the location and process connections among the nuclear facilities and facilities important to nuclear safety and radiation protection, defence-in-depth protection with increasing level of complexity has been established. Systematically is being worked on risk assessment, as well as on internal threat, following the mode of classified information and implementation of the ISO 27 000 standard. The activities for nuclear security culture development were planned and regularly performed during the year. The mechanisms for security enhancement during transportation of spent fuel and other radioactive materials were improved.

In 2014, a serious achievement was the modernisation and integration of the National System for Early Warning and Notification at Kozloduy NPP in the frames of the Urgent Protective Actions Zone.

The automated pass control system (APCS) with implementation of biometric identification for access to the certain areas at Kozloduy NPP was successfully modernized. The biometric devices and the relevant software were implemented in the access control system, the software for all automated pass control system controllers at the plant site were updated.

A number of training courses for qualification enhancement

were carried out. Efficient interactions and coordination with Kozloduy NPP Local Police Office, the Regional Directorate of Ministry of Interiors and Structures of the Directorate General Border Police are provided.

In 2014, the BNRA and the Regional Directorate for the Ministry of Interior of Vratsa reviewed the physical protection of Kozloduy NPP. The review found that the physical protection of Kozloduy NPP fulfils its main functions and provides for the required prevention of design basis threat.

FIRE SAFETY

The required organizational and technical measures which are in compliance with the up-to-date international and national requirements are implemented in order to provide plant fire safety.

The required programmes, rules and instructions, which are continuously improved and expanded, have been developed and implemented in the company. The main objective of the activities performed is fire prevention.

Rigorous efforts are made to sustain and develop high level fire safety. As a result of the applied measures, the fire occurrence risk has been reduced significantly and their fast detection and extinguishing, as well as loss reduction is ensured.

Modern technical means, the Regional Fire Safety Office at Kozloduy NPP is equipped with, also contributes to the high level of fire safety. Last year new motor-operated pumping unit and two new fire trucks were delivered.

In 2014, the results of the reviews, performed by the state supervisory authorities confirmed the high level of plant fire safety.

RADIOECOLOGICAL MONITORING

The purpose of Radioecological monitoring at Kozloduy NPP is monitoring and analysis of the radiation condition of environment and evaluation of the local population dose exposure in accordance with the European and national regulations. The scope, range and monitored parameters is stipulated in a long-term programme agreed by the BNRA, National Centre of Radiobiology and Radiation Protection (NCRRP) at the Ministry of Health (MH), and Executive Environment Agency (ExEA) at the Ministry of Environment and Water (MEW). The Programme fully complies with the relevant national and European regulations including Article 35 of the EURATOM Treaty, Recommendations of EC 2000/473/ EURATOM and 2004/2/ EURATOM.

The monitored area includes the Kozloduy NPP site, 2-km Precautionary Action Zone (PAZ), 30-km Urgent Protective Action Planning Zone (UPZ), and monitored points in the 100-km radius surrounding the plant in the Bulgarian territory. The subjects of monitoring are the basic environmental components – air, water, soil, vegetation, agricultural crops, milk, fish, etc. The radiation gamma background in the local settlements is continuously measured. Field measurements by means of a mobile laboratory are carried out.

The monitoring for 2014 involves more than 4,500 radioactivity analyses of over 2,450 samples in total from different environmental items. The quality of analyses and measurements conducted is ensured by taking part annually in prestigious international inter-laboratory comparisons involving reference samples organised by IAEA - Vienna, the Federal Office for Radiation Protection BfS (PTB) – Germany, the World Health Organisation (WHO) - Paris, and the National Physical Laboratory (NPL) - Great Britain.

The results of radiological indicators from the analyses of environmental samples in 2014 are within the background

levels specific for the region. No impact of the nuclear power plant operation has been detected. The human-induced activity levels detected are many times below the permissible limits for the relevant radiological indicators and analysed samples. The radiological situation is fully favourable. Facilities at the industrial site of the Kozloduy NPP are also subject to a comprehensive radioecological monitoring – ground waters, aerosols, atmospheric depositions, soils, bottom sediments, etc. A comprehensive annual report on the radioecological monitoring including an analysis of all the results throughout the year is submitted to the BNRA, NCRRP-MH, and EEA-MEW. The results of the internal radiation monitoring are verified by the independent radioecological studies under programmes of the MEW and NCRRP-MH.

The gamma background levels at the on-site monitored points and measurement points within the 100-km zone for 2014 were fully comparable with and do not deviate from the natural gamma background specific for the region. The measurements are carried out at regular intervals by means of low-background dosimetry devices of high precision and passive thermoluminescent dosimeters.

There is an automated information system for radiological monitoring (AISRM) with a total of 13 local measuring posts in different populated areas for notification of the general public in the 30-km zone. The data is displayed on information boards in public places and transmitted through a wi-fi connection on-line to the central station to Kozloduy NPP and further to ExEA (MEW). The system data is also in the frames of the natural background.

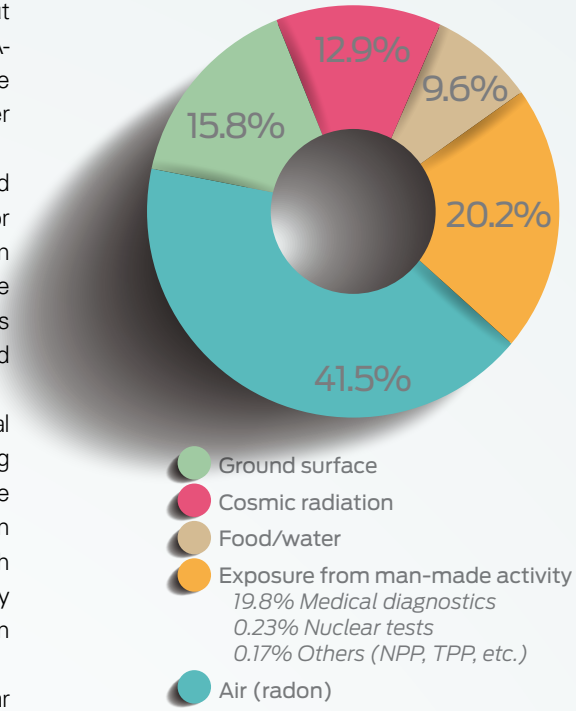
The human-induced atmospheric activity during the year was close to the natural background (average of 2.8 μBq/m^3) and is many times below the permissible limits according to Regulation on Basic Standards for Radiation Protection of 2012.

No radiological effects due to the operation of Kozloduy NPP on the water of the Danube River and drinking water sources in the region were observed. The total beta activity of the water from natural ponds is between 0.016 and 0.10 Bq/l, which is only 18% of the maximum permissible of 0.5 Bq/l stipulated in Regulation H-4/2012. The content of tritium in the samples from the open ponds is around the Minimum Detectable Activity (MDA) of up to 6.8 Bq/l. The radiation status of drinking water corresponds to the water safety standards (Regulation No.9/16.03.2001). The total beta activity measured in the drinking water sources ranges between 0.017 and 0.098 Bq/l. Tritium above the MDA has not been detected (average of 2.8 Bq/l).

The human-induced soil activity is not affected by the operation of Kozloduy NPP. The activity of ^{137}Cs for 2014 varies between 1-40 Bq/kg, the average value being 10 Bq/kg. This percentage is lower than the average value for the country. The activity of ^{90}Sr ranges from 0.2 to 3.2 Bq/kg, these values being typical for the soils in this geographic region. The human-induced activity in the vegetation studied is within the standard limits – ^{137}Cs to 5.0Bq/kg and ^{90}Sr – to 1.8 Bq/kg.

The radioactivity of the main food produced in the region, milk, fish, and agricultural crops, is within normal radiation background levels, much below the relevant permissible limits (Regulation No. 10 of 2002).

COMPONENTS OF THE AVERAGE ANNUAL DOSE EXPOSURE – 3.0MSV (ACCORDING TO THE UNSCEAR- 2008 REPORT)



GENERAL PUBLIC DOSE EXPOSURE MONITORING

Verified and validated modelling codes for evaluation, based on the CREAM methodology, adopted by the European Union (EU) and adapted to the geographical and hydrological specifics of the Kozloduy NPP area, are used for the evaluation of additional public dose exposure.

For 2014, when using the representative meteorology data for the region, the total evaluation of the maximum individual effective dose of a critical group of population due to liquid and air borne discharges to the atmosphere taking into account the contribution of ^{14}C and ^{3}H is 4.8 μSv/a. This is negligibly lower compared to the limit for the general public for one year (1000 μSv) according to the Basic Standards for Radiation Protection Regulation, State Gazette, Issue 76 of 2012. The collective dose for the population in the 30-km monitored area of Kozloduy NPP is 0.031 manSv/a. The statutory collective dose of 0.017 manSv/GW.a is comparable to the average values for PWR reactors worldwide. The share of the liquid discharges in the total evaluation of the maximum effective dose is 3.34 μSv/a (critical group), and airborne discharges - 1.46 μSv/a for the 30-km monitored area.

The low radioactive discharges from Kozloduy NPP determine dose exposures of negligible radiological risk to the general public in the plant area. The additional average a dose exposure for the general public in the 30-km Urgent Protective Action Planning Zone is about 500 times lower than the one originating from the natural background (2330 μSv/a). Over the past five years the maximum individual effective dose to the public ranges from 4 to 7 μSv/a , which is below the limit for release from regulatory control – 10 μSv/a, Basic Standards for Radiation Protection Regulation, State Gazette, Issue 76 of 2012.

ENVIRONMENTAL PROTECTION – NON-RADIOLOGICAL ASPECTS

The management of the non-radiological aspects of environmental protection at Kozloduy is in compliance with regulatory requirements and conditions as set forth in the permits issued to the plant by the Ministry of the Environment and Waters, the Danube Region Waters Directorate of Pleven, and the Regional Inspectorate of Environmental Protection and Waters of Vratsa.

In 2014, all conditions and measures in the permits issued to the plant by the environment protection competent authorities were fulfilled. The fees payable according to the Water Act were promptly paid and the required information, reports and papers were prepared.

In compliance with the operating licence for the operation of a plant of high risk potential, an emergency response plan of Kozloduy NPP plc for actions in the event of an accident involving hazardous chemicals was developed.

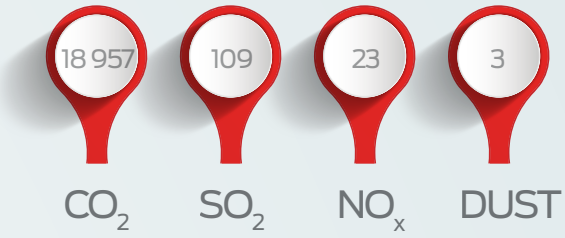
Following the implementation of the Programme for the non-radioactive waste management, twenty new specialized containers for the storage of obsolete gas-discharge lamps were purchased and the hand-over of 176 tons of hazardous waste for further safe treatment were arranged. A plan for assessment and clean-up of construction waste for the site of Kozloduy NPP was prepared.

In 2014, samples from surface, underground and waste waters were taken and analysed according to the Programme for plant monitoring of waters during the operation of Kozloduy NPP and Programme for plant non-radiological monitoring of landfill for non-radioactive household and industrial waste. The testing was carried out by accredited Vratsa regional laboratory at the Executive Agency for Environmental Protection, the Engineering Chemistry Section at the Quality Department and the Radioecological Monitoring in Safety Division.

About 3,000 water samples were analysed, and their results show that there was no trend towards increase in the values of the monitored indicators. There were no recorded values exceeding the allowable limits which are result from the operation of Kozloduy NPP; values are close to those from previous years. The annual report on the results from the plant non-radiological environmental monitoring in the area of Kozloduy NPP has been submitted to the Executive Environment Agency and to the Regional Inspectorate of Environment and Water of Vratsa.

No deviations were identified during the four inspections of 2014 carried out by the Regional Inspectorate of Environment and Water of Vratsa and all ten inspections of the Danube Region Waters Directorate of Pleven.

GREENHOUSE GASEOUS AND HARMFUL EMISSIONS KOZLODUY NPP HELPED AVOIDING COMPARED TO CONVENTIONAL THERMAL POWER PLANTS FOR 2014 (THOUSAND TONES)



LABOUR CONDITIONS

Being a responsible employer, Kozloduy NPP makes systematically efforts to maintain health and safe labour conditions to ensure protection and professional risk prevention. Risk assessment programmes, harmonized with the IAEA recommendations, international practice, and national regulations are implemented. The programmes cover all the activities related to the industrial safety as well as the obligations stipulated by the regulations. The prevention and promotion of safety improvements, occupational health protection measures, training and sustaining the personnel awareness of the safety and health rules are an established priority.

Kozloduy NPP has successfully implemented a system for management of the safety and health at work in compliance with the international standard OHSAS 18001:2007 under the project BG 051PO001, „Health and Safety Prevention."

Plant employees are provided with personal protective equipment, free wholesome food, shorter working hours, compulsory occupational accident risk insurance for the employee working in high occupational risk conditions.

Risk assessment at the working place is systematically performed and the implementation of the prescribed measure is reported.

An evidence for the success of the applied measures is the permanently established trend at Kozloduy NPP for reduction in the number of lost working days due to work injuries. The plant industrial injuries indicators are continuously maintained at low values. The industrial injuries factor at Kozloduy NPP is 0.26, which is significantly lower than the average value of 1.60 for the industry and the value of 0.68 for the country.

FINANCIAL PERFORMANCE

In 2014, Kozloduy NPP successfully achieved its priority business goals. Overfulfilment of the planned financial ratios of sales income and annual financial net results was reported at the end of the year. Financial performance amounts to BGN 78 million, earned in the presence of high annual costs for discontinued activities, amounting to BGN 58 million.

The Company's annual earnings reached BGN 850 million which marked a growth of BGN 115 million (16%) in comparison with the previous 2013. The income of electricity sales amounted to BGN 830 million (98% in the income structure), marking a growth of BGN 113 million compared with 2013. Income was mainly increased in result of the following two factors:

1. A growth of the sold to the grid electric power compared to the previous 2013 – 1 697 873 MWh (13%);

2. Resolution No.TE–023/29.05.2014 of the Energy and Water Regulatory Commission which stated lower quotas for the regulated price supplies for the regulatory period from 01.07.2014 – 30.06.2015 in comparison with the previous regulatory period. That resulted in increased sales income in spite of the lower availability price. The increased negotiated prices for sales on the liberalized market reached a growth of income in the amount of BGN 222 million (55%) compared with 2013, which made up for the decrease of BGN 108 million (34%) of the income of the regulated price sales.

The reported bigger profit, as compared to the previous year yield, and the substantial sales income increase predetermined the reported increase of the profitability from 6% to 9%.

The total operating costs for 2014 amounted to BGN 73 million (12%) more than the ones in 2013. The depreciation costs were BGN 15 million (11%) higher due to the commissioning of new tangible fixed assets. Other contributing factors to that increase were the accounted compensation costs under the Labour Code and the Collective Labour Agreement, a provision for pension benefits amounting to BGN 12 million, the contributions to the Nuclear Facility Decommissioning (NFD) and RAW Funds were with BGN 12 million higher in result of the increased production, and the nuclear fuel costs that were increased with BGN 20 million.

During the past 2014, the Company's management priority was to financially provide for the units safe operation and outages, the implementation of the strategic projects for Units 5 and 6 lifetime extension and thermal power uprate, as well as the other payments to the budget, personnel, the principal, etc. Although cash flows reached critical levels several times during the year, Kozloduy NPP managed to make due payments without using any loan funds.

The company paid with no delay all due installments to the state and municipal budget of a total amount of BGN 283 million. That included the payments of BGN 86 million for the Nuclear Facility Decommissioning and RAW Funds, BGN 157 million for taxes and fees, BGN 40 million for national insurance and health insurance contributions. The Company duly paid all of its liabilities to the debtor EURATOM, to the personnel and business contractors.

The tendency of decreasing the Kozloduy NPP cash and cash equivalents was also observed during the past 2014. As of 31.12.2014, BGN 19 million was available at the company. The decrease was 26 million as compared with the year 2013. The external factors that essentially affected the amount of cash and cash equivalents were the low level of collectability for electricity sales by NEC PLC and the low regulated prices.

FINANCIAL INDICATORS

Indicator	Report 31.12.2014 BGN thousand	Report 31.12.2013 BGN thousand	Change 2014/2013 (%)
Total operating income	850 413	735 057	15.69%
Total operating costs	(700 423)	(627 752)	11.58%
EBITDA [1]	303 329	245 917	23.35%
EBIT [2]	149 990	107 305	39.78%
EBT [3]	146 103	110 095	32.71%
EBIT margin	17.6%	14.6%	20.82%
EBITDA margin	35.7%	33.5%	6.61%
Total of assets	2 380 591	2 360 461	0.85%
Tangible fixed assests [4]	1 791 039	1 792 859	-0.10%
Working capital [5]	332 132	313 614	5.90%
Cash	18 920	45 322	-58.25%
Equity	1 679 489	1 628 054	3.16%
ROE (return on equity)	8.70%	6.76%	28.64%
Return on assets	6.14%	4.66%	31.58%

[1] EBITDA – earnings before interest, taxes, depreciations and amortization
[2] EBIT – earnings before interest and taxes;
[3] EBT – earnings before taxes;
[4] TFA – tangible assets + capital assets valued at cost;
[5] Working capital – current assets minus current liabilities

STATEMENT OF FINANCIAL POSITION

	Assets	31.12.2014 BGN thousand	31.12.2013 BGN thousand
Non-current Assets	Property, plant and equipment	1 791 039	1 792 859
	Intangible assets	7 118	4 354
	Investments in subsidiaries	15 161	15 161
	Loans granted to related parties	18 990	19 180
	Receivables from CTB JSC	4 618	-
	Available-for-sale financial assets	232	232
	Non-current assets	**1 837 158**	**1 831 786**
Current Assets	Nuclear fuel	247 184	263 396
	Inventories	59 324	57 458
	Trade and other receivables	45 497	35 315
	Loans granted to related parties	2 367	2 930
	Related parties receivables	170 141	123 966
	Income tax receivables	-	288
	Cash and cash equivalents	18 920	45 322
	Current assets	**543 433**	**528 675**
	Total assets	**2 380 591**	**2 360 461**

	Equity and liabilities	31.12.2014 BGN thousand	31.12.3013 BGN thousand
Equity	Share capital	165 607	153 855
	Legal reserves	15 385	12 454
	Revaluation reserve of non-financial assets	429 303	432 750
	Reserve from remeasurements of defined benefit liability	(5 961)	(6 423)
	Other reserves	984 126	984 126
	Retained earnings	91 029	51 292
	Total equity	**1 679 489**	**1 628 054**
	Liabilities		
Non-current liabilities	Loans	192 038	236 289
	Retentions on construction contracts	1 393	5 847
	Financing	190 737	173 055
	Liabilities for employee retirement benefits	16 062	10 528
	Deferred tax liabilities	89 571	91 627
	Non-current liabilities	**489 801**	**517 346**
Current liabilities	Trade and other payables	142 222	127 183
	Related party payables	2 265	21 296
	Loans	46 491	46 880
	Financing	1 456	1 524
	Retentions on construction contracts	5 742	4 706
	Liabilities for employee retirement benefits	12 029	13 472
	Income tax liabilities	1 096	-
	Current liabilities	**211 301**	**215 061**
	Total liabilities	**701 102**	**732 407**
	Total equity and liabilities	**2 380 591**	**2 360 461**

STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME FOR THE YEAR ENDED 31 DECEMBER 2014

	2014 BGN thousand	2013 BGN thousand
Revenue from sale of electricity	829 970	716 590
Revenue from sale of heat	2 037	2 051
Sales revenue	**832 007**	**718 641**
Financing income	1 213	1 739
Revenue from sale of services, goods and other sales	17 193	14 677
Costs for materials	(154 579)	(151 244)
Costs on hired services	(92 973)	(100 072)
Staff costs	(187 882)	(168 218)
Depreciation and amortization	(153 339)	(138 612)
Other costs	(101 105)	(77 384)
Changes in work in progress	(10 856)	7 674
Acquisition of machinery, facilities and equipment under business activity	311	104
Operating profit	**149 990**	**107 305**
Financial costs	(5 983)	(9 139)
Financial income	2 096	11 929
Profit before tax	**146 103**	**110 095**
Income tax expense	(9 179)	(4 747)
Profit for the year from continuing operations	**136 924**	**105 348**
Loss for the year from discontinued operations	(58 532)	(63 246)
Profit for the year	**78 392**	**42 102**
Other comprehensive income		
Items that will not be reclassified subsequently to profit or loss		
Revaluation of defined benefit liability	513	(1 618)
Income tax related to items not reclassified	(51)	162
Other comprehensive income/(loss) for the year, net of tax	**462**	**(1 456)**
Total comprehensive income for the year	**78 854**	**40 646**

CASH FLOW STATEMENT FOR THE YEAR ENDED 31 DECEMBER 2014

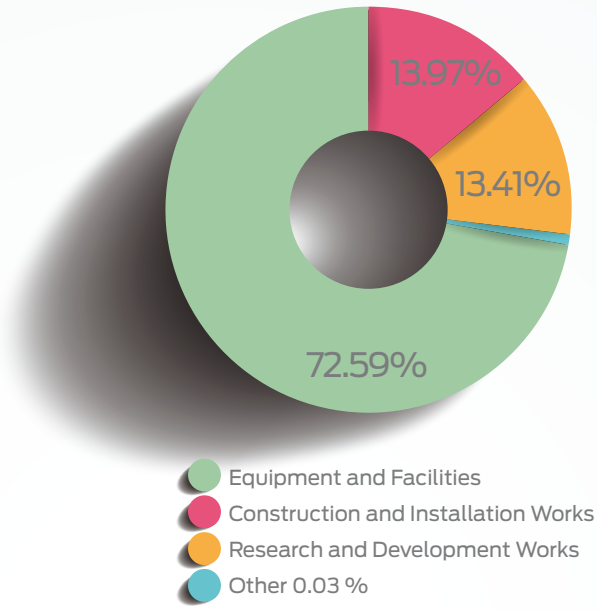
	2014 BGN thousand	2013 BGN thousand
Operating activities		
Proceeds from customers	917 405	869 445
Payments to suppliers	(251 493)	(295 330)
Payments to staff and social insurance institutions	(169 843)	(165 002)
Payments for fees, commissions and the like	(51)	(62)
Payments to the Radioactive Waste Fund and Nuclear Facility Decommissioning Fund	(85 939)	(76 030)
Income taxes received/(paid)	(9 901)	347
Payments for other taxes and to the state budget	(129 060)	(116 943)
Insurance payments	(9 901)	(9 129)
Other cash flows from operating activities	(9 441)	56 317
Net cash flows continuing operations	251 776	263 613
Net cash flows discontinued operations	(28 812)	(65 363)
Net cash flows from operating activities	**222 964**	**198 250**
Investment activities		
Acquisition of property, plant and equipment	(157 272)	(120 749)
Proceeds from disposals of property, plant and equipment	18	259
Acquisition of subsidiaries	-	(12 000)
Loans granted	-	(1 061)
Proceeds from granted loans	754	150
Interest received	1 721	1 438
Dividends received	255	262
Net cash flows from investment activities	**(154 524)**	**(131 701)**
Financing activities		
Repayments of loans	(44 251)	(38 750)
Interest paid	(5 449)	(8 200)
Dividends paid	(45 142)	(53 262)
Net cash flows from financing activities	**(94 842)**	**(100 212)**
Tied up funds in CTB JSC	**(4 618)**	**-**
Net change in cash and cash equivalents	**(26 402)**	**(33 663)**
Cash and cash equivalents at the beginning of the year	**45 322**	**78 985**
Cash and cash equivalents at the end of the year	**18 920**	**45 322**

INVESTMENT PROGRAMME

In 2014, Kozloduy NPP implemented a large-scale investment programme in their own funds amounting to BGN 186.1 million. The total amount of the commissioned long-term assets throughout the year was over BGN 116 million.

The focus of investments is priorities for the sustaining and enhancing of nuclear facilities safety and the implementation of the significant projects providing for the plant reliable, safe and efficient electricity generation for the next decades.

EXPENDITURE STRUCTURE



Units 5 and 6 Lifetime Extension

In 2014, the total amount of the investments made in the Units 5 and 6 lifetime extension programme was BGN 54 million. The following activities were implemented under this important for the Bulgarian nuclear energy project:

– Comprehensive study of the actual status and assessment of the rest lifetime of the equipment and facilities. The total project cost amounted to BGN 31 million as of 31 December 2014. The final documentation Unit 5 Lifetime Extension Preparation Programme and Unit 6 Lifetime Extension Preparation Programme and under Stage 5B of the working programme was fully accepted. The contract on Units 5 and 6 complex assessment was completed.

- Design, supply and installation of 0.4 kV power supply cabinets replacing the three phase distribution cabinets for the safety systems at Units 5 and 6 and BOP cabinets. The activities planned for Unit 5 second and third safety systems and Unit 6 first, second and third safety systems were completed. The detailed and installation design of Unit 5 first safety system was approved.

- Procurement and replacement of the check valves for safety, safety-related and non safety-related systems. The check valves have been delivered and their installation is due.

- Modernization and procurement of Reactor Coolant Pump spare parts. It is performed in compliance with the time schedule under the Contract for Manufacturing and Procurement of Modified Casings for 195-M Type Reactor Coolant Pump replaceable parts and relevant technologies for pump casing installation, fixing and alignment with the deadline of 2018.

- Modernization of Auxiliary Building-3 I&C systems.

Stage 1 and 2 of the time schedule have been completed which is 35% of the Contract price.

Reactor Thermal Power Uprate of up to 104%

The funds invested in this project are BGN 74 million. The main project activities are as follows:

– In-core monitoring system modernization in connection with the activities related to thermal power uprate of the WWER-1000/B320 reactor installation. The activities under the contract on the replacement of the hardware and software system of Units 5 and 6 upper In-core Monitoring System were completed.

– Procurement of a new stator, reconstruction of the ТВВ-1000-4 У3 type generator rotor and reconstruction of БВД-4600-1500 У3 type exciter to ensure the operation at 1100 MW. The Unit 6 stator was delivered and all pre-installation activities were completed. The installation work will be performed during the next outage of the Unit. The Unit 5 stator replacement has been planned for 2017.

–Safety Analysis and modifications of structures, systems and components for transition to a new nuclear fuel type including introducing them into the Updated Safety Analysis Report (USAR). A contract on the Development of the advanced nuclear fuel cycle and analysis of the Kozloduy NPP Units 5 and 6 safe operation using a modified nuclear fuel at 3120 MW is ongoing. Four stages of the working programme have already been completed, which is 30% of all the contractual activities.

– Modernization of Units 5 and 6 Steam Generator Separation System. The first stage (perforated plates replacement) of the Unit 6 contract has been completed for the first four steam generators, and the activities for Unit 5 are to be performed in 2015.

Measures under projects related to the Programme on sustaining and enhancing the safety at Kozloduy NPP, licensing conditions and regulations, safety enhancement and measures under the Programme for implementation of the recommendations of stress tests conducted at the nuclear facilities of Kozloduy NPP.

The investment in the measures performed amounted to BGN 58 million as follows:

- Procurement of pneumocylinders for isolating pressure-operated valves in Units 5 and 6. These will be installed during the plant outage in 2015.

- Modernization and integration of the National Early Warning and Notification System with the Kozloduy NPP Early Warning and Notification System within the Urgent Protective Action Zone as well as building a unified radio communication system for rescue activities aiming at improving the interactions among the Ministry of Interior, Ministry of Energy, Ministry of Health, Kozloduy NPP, BNRA and Bulgarian Energy Holding. The project has been completed.

- Design, manufacturing and installation of high temperature resistance service plugs for prevention of early containment bypass in the event of a severe accident. The project has been completed.

- Procurement of stud tensioners for main primary equipment. The contract for modernization of 195 M Type Reactor Coolant Pump main flange joint stud tensioner has been completed.

- Repair and modernization of the WWER-1000 Reactor Main Flange Joint Stud Tensioner – The design documentation under the contract has been accepted.

INTERNATIONAL COOPERATION

Kozloduy NPP strives to comply with the high international requirements, to study and apply the current good practices shared in the course of the nuclear industry international professional cooperation.

This is a manifestation of the continuous effort to ensure a higher safety level.

The plant regularly exchanges information and experience, and works in close cooperation with the International Atomic Energy Agency (IAEA), the World Association of Nuclear Operators (WANO), and a number of other international organizations and leading companies in nuclear energy industry.

Conduct of peer reviews proves to be an efficient mechanism for experience and knowledge exchange between nuclear power plants throughout the world.

These reviews allow the host countries to measure the operations of their plants against the best world practices through objective operational analysis conducted by an independent international expert group.

Peer Reviews are extremely important for each NPP as a demonstration of openness and transparency in the overall activity and carry out independent assessment of nuclear facility safety.

During the past year, Kozloduy NPP's work in the field of the international cooperation gave priority to the preparation of two important missions: the Follow-up WANO Mission scheduled for mid year of 2015, and Units 5 and 6 Follow-up OSART Mission – Operational Safety Review Team, carried out in June 2014.

The suggestions and recommendations, made by the expert teams during the 2012 OSART Mission, and the findings in the areas for improvement, identified by the WANO Peer Review in 2013, were carefully analysed during the preparation. Based on the analyses, conducted in the different areas, specific corrective measures were taken.

Programmes were developed and their implementation contributed to keeping the high level of the plant operational safety.

The Coordination Committee regularly meets during the year to manage and coordinate programme activities, and task force teams were assigned to implement scheduled activities.

The results achieved throughout the preparatory phase were organised in a report that was submitted to the IAEA prior the Follow-up OSART Mission.

The Report covers the basic conclusions drawn from KNPP self assessment of the activities on the implementation of the suggestions and recommendations made by the OSART Mission, conducted at the end of 2012.

The OSART Follow-up of Units 5 and 6 Operational Safety Review was conducted within the period 23 – 26 June 2014. The purpose of this type of reviews is to determine the efficiency of the activities initiated by the nuclear power plants to implement the suggestions and recommendations listed in the operational safety review reports.

The review ended with the following results: 73% of the issues raised by the OSART Mission Team were completely resolved, and the action plans entirely implemented, and satisfactory progress was reported for the remaining 27%. Actions are taken to ensure that the respective issue will be resolved within an acceptable time period.

A successful OSART mission with positive results will additionally prove to the public that the Bulgarian Nuclear Power Plant observes all the IAEA safety requirements and

complies with the highest standards in the nuclear industry.

Within the continuous information and operational experience exchange, the nuclear power plant specialists took part in expert review programmes, international missions, and in IAEA and WANO Technical Support Missions.

The Moscow WANO Centre carried out a Technical Support Mission at Kozloduy NPP within 15-18 September 2014 on the topic of „Implementation of Measures to Prevent Foreign Objects from Falling into Equipment that Have Lost its Integrity or Have Been Opened".

The objective was to master the activities during implementation of repair work.

The participants unanimously agreed that the mission was conducted in an atmosphere of frankness and comradeship.

The remarks and recommendations made were used to specify certain measures for the removal of the identified problems.

Throughout the year, Kozloduy NPP representatives took part in Peer Reviews to Onagawa NPP (Japan), Chooz NPP (France), the South Ukranian NPP, Rostov NPP (Russia) on a Pre-commissioning Peer Review, an IAEA expert mission at the Iranian Bushehr NPP, WANO Technical Support Mission at Novovoronezh NPP (Russia), Loviiza NPP (Finland), etc.

Throughout the period 25-29 August, Kozloduy NPP hosted a Joint WANO Moscow - IAEA Workshop on Improving Personnel Training on the Use of Low Level and Near Miss Event Trend Analysis.

Representatives of nuclear power plants and regulatory bodies of 12 countries took part in the workshop.

The Plant conducted an IAEA Training Course on the Root Cause Analysis Methodology - HPES at the beginning of December.

A number of Working Meetings were conducted under the scope of the Joint Kozloduy NPP - Cernavoda NPP (Rumania) Project on exchange of experience in the fields of Safety Culture and Operating Experience.

In 2014, Kozloduy NPP was actively involved in conducting a number of technical and working meetings, and workshops in connection with the plant membership in international and national non-governmental organizations, along with bilateral cooperation with other plants and specialized R&D companies, and regulatory bodies working in the field of nuclear energy.

HUMAN RESOURCES MANAGEMENT

A key factor in achieving the Kozloduy NPP's main priority – safe, efficient, and environmentally friendly electricity generation – is maintaining certified, competent, and motivated personnel. Therefore, a professional selection and recruitment system is established and maintained at the plant complying with the IAEA requirements and best practices worldwide.

PERSONNEL PROFILE

The employees in the Company were 3 676 at the end of 2014. The number of the people on the payroll remains unchanged. Kozloduy NPP adheres to the requirement to keep the general payroll within the specified limits in the event of organizational changes.

Throughout 2014, 93 vacancies were advertised and recruitment procedures were arranged and completed. Typically, there is an increased interest in the positions at the Kozloduy NPP as 1 544 people stood as candidates in the recruitment procedures throughout the past year. 480 people were invited for an interview following a prior selection of the suitable candidates in accordance with the recruitment procedure.

During the interviews conducted, 85% of the candidates mentioned that they have received information about the vacant positions from the Kozloduy NPP's official website and the remaining 15% – from relatives and acquaintances. For about one third of the candidates this was the first time to apply at the plant while the rest of them have applied twice or more. 54% of the candidates stated the opportunity for professional development was a major drive for standing as candidates at the Kozloduy NPP. 15% were unemployed at the time of application. 14% of the candidates were motivated by the remuneration and 12% were searching for career development. 3% of all respondents stated that relocation was the reason for applying, and 2% were attracted by the Company's good reputation.

Over the last few years, the Kozloduy NPP human resources policy is aimed at young people. This provides an opportunity to transfer smoothly the knowledge and specific professional expertise gained throughout the years and prepare the new generations of highly-qualified specialists.

Recruitment and selection procedures for employment of young apprentices under the age of 29, having no previous work experience, were initiated in June 2014. The candidates interested in acquiring practical skills on the speciality graduated were 681. Therefore, 22 young people were employed pursuant to these grounds of the Labour Code as of 31 December 2014.

As a result of this policy, about 46% of the newcomers to the Company in 2014 were individuals under 30. 63% of them had higher education. 35% were assigned to managerial positions and positions requiring high educational degree and qualification.

The number of the workers and employees who left the plant last year was 226; 73% of them retired upon reaching retirement age.

The average age of the plant staff is approximately 45 years (44,9 years), and the average working experience in the Kozloduy NPP is about 17 years (16,68 years).

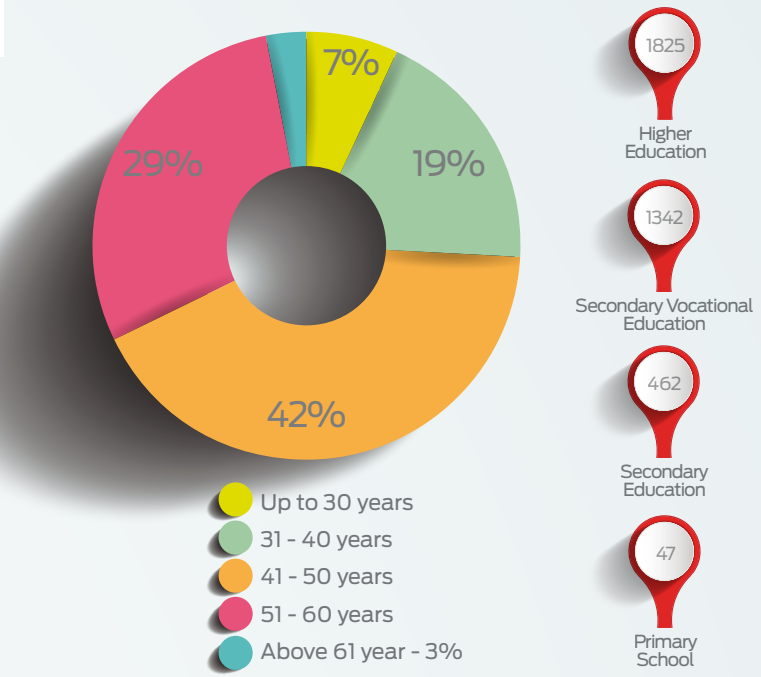
The education and training requirements for the workers and employees comply with the high standards and requirements for the personnel operating nuclear facilities. Every position at the Kozloduy NPP requires as a minimum a secondary school diploma.

The percentage of the personnel currently working at

the Company and having higher and vocational education is 86.16%. 73% of all the employees with higher education hold a Master's Degree, and the employees with a Ph.D. are 0.57%. The personnel with primary school education are about 1.28% compared to the total number of employees. These are mainly workers involved in additional and auxiliary activities not requiring special qualification.

The Company Management encourages the personnel's education and qualification enhancement on plant applicable specialities.

AGE STRUCTURE AND EDUCATIONAL PROFILE



PERSONNEL MOTIVATION

Another important objective of the human resources management policy is to maintain a high level of personnel motivation.

The annual company personnel motivation study was conducted at the end of 2014. The results show relatively high motivation. Typically, the highest values are found on the work environment sub-factors: Trust in Colleagues, Health and Safety at Work, Work Performance Self-Assessment, and Teamwork. The sub-factors Trust in Colleagues and Teamwork are among the determining factors within the Interpersonal Relations Factor Group. The high motivation levels from the last study show that the workers and employees are sure of their colleagues' capabilities and are confident they demonstrate the relevant set of competences which allows them to perform their duties at a high professional level.

One of the main responsibilities assumed by the plant Management within the Company Management Policies is providing health and safety at work, and protection of the public and the environment. The high motivation values of the Health and Safety at Work sub-factor assess positively the management efforts to create safe and anxiety-free working conditions.

TAKING CARE OF THE FUTURE

The nuclear power plant is involved in different initiatives which aim at attracting the interest of students in their future professional career development at the Company.

Kozloduy NPP took part in the National Initiative 'A Manager for a Day' for a sixth consecutive year in March. Eight students from the Igor Kurchatov Technical Vocational School (Kozloduy) and four students from the Joan Exarch English Language School (Vratza) were provided with an opportunity to take managerial positions at the biggest electricity generating plant in the country for a day. They gained insights of the normal working rhythm of their „coaches" and the knowledge and competence required for the specific job postilion. The Managers for a Day participated in carrying out real tasks. Some of them took part in signing a contract between the nuclear power plant and the French company AREVA on the maintenance of the systems and equipment installed in different facilities of the Bulgarian NPP.

30 students participated in the individual paid internship programme in the period July - August 2014. The programme, which is implemented for ten years in a row, is aimed at students who have finished their third year in specialities applicable to the plant operations: nuclear engineering, electrical engineering, electrical equipment engineering, engineering physics, physics, computer sciences, ecology, and environmental protection, etc. The specialities vary every year depending on plant needs.

The interns worked in different structural units of the Company for 20 days in compliance with preliminary prepared projects on specific topics related to plant operations and defined by their coaches. The internship of each participant in the programme finished with a presentation of the project demonstrating the knowledge gained.

The Company takes part in career development forums of higher education institutions in order to promote the development opportunities it provides. It has become customary for specialists from the Kozloduy NPP selection and recruitment department to be involved in the Internship Forum of the Technical University of Sofia conducted every year. The Forum provides a venue for employers to meet directly with young specialists and, thus, promote the nuclear power plant activities and career development opportunities to be provided. The involvement of the Kozloduy NPP in this Career Forum states once again the plant strong commitment to developing future professionals in the nuclear energy.

TRAINING

Kozloduy NPP applies a personnel training and qualification system in accordance with the international standards and state regulations. A Training Centre which provides conditions for conducting the required training has been established and is maintained. Kozloduy NPP is also developing a knowledge management system.

In compliance with the Safe Use of Nuclear Energy Act, the only one to conduct a specialized training for activities in nuclear facilities is a training organization possessing a license by the regulatory body. Kozloduy NPP Personnel and Training Centre Division is assigned the functions and responsibilities for the application of the issued to the Company „Licence for conducting specialized training on operations with nuclear facilities and sources of ionizing radiation".

The training process is organized in conformity with the priority set in the Company's Policy Statement to provide for licensed, competent and motivated personnel. This is meant to establish high safety culture in the personnel, to develop company culture where qualification plays a key role, to effectively use and manage the personal and company knowledge, to stimulate the personnel to acquire the necessary knowledge, skills and positive attitude towards their work.

PERSONNEL TRAINING

Kozloduy NPP conducts a compulsory specialized training for acquiring, maintaining, and improving the knowledge and skills related to the nuclear facilities' operation and maintenance. It is based on the requirements of the systematic approach to training – an internationally acclaimed and used in most of the nuclear power plants methodology.

The training for filling a position and independent job assignment is done in accordance with initial training programmes as an individual training programme is developed for each member of personnel. In 2014, more than 100 individual initial training programmes were developed and implemented.

The knowledge and skills acquired through the initial training are assimilated, upgraded and further developed by means of continuing training to be conducted at the Training Centre and on-site.

Individual continuing training programmes are developed annually for the individuals at licensed positions whose work is related to the provision of and impact on the nuclear safety and radiation protection. 198 continuing training programmes were implemented for the plant personnel in 2014.

The training of the rest of the personnel is organized and delivered using plan-schedules – on different subjects or for different personnel groups. Over 25 plan-schedules were implemented in 2014. Based on the activities included in them, different training settings are applied – theoretical, simulator and practical.

In 2014, about 2000 training courses at the Training Centre and over 1100 on-site trainings were organized and performed. The Company personnel also received 13 specialized trainings organized outside Kozloduy NPP.

Regulatory requirements for passing initial and continuing FSS (full-scope simulator) training are imposed on the operating personnel performing functions related to the provision and control of nuclear safety – reactor operators, unit shift supervisors, plant shift supervisors, and reactor physicists. The continuing simulator training conducted in 2014 is 1416 hours. Six operators received initial simulator

training with a total duration of 210 hours. FSS training was delivered to other operating positions during the year as well – Turbine Equipment section operators, Electrical Equipment section operators and shift supervisors, and Switchgear shift supervisors.

EXTERNAL ORGANIZATIONS PERSONNEL TRAINING

In accordance with the regulations, the requirements for preparation of both the Company's own personnel and the external organizations' personnel assigned to perform activities in nuclear facilities are the same.

There are two main courses for providing access to the Kozloduy NPP site for individuals from external companies and organizations. 3,500 individuals from 168 companies and organizations received training in „Introduction to KNPP" connected with the site access provision and about 1,800 individuals - in „Radiation Protection - first level" (for access to the controlled area). Other types of training for acquiring certain qualifications are also organized on request (training on programmes for performing activities in nuclear facilities and activities with sources of ionizing radiation, in compliance with the licence issued, training on industrial safety regulations, Law on health and safe labour conditions, etc.)

Five young specialists from the BNRA and three licensed specialists from SE RAW were trained under specialized individual initial training programmes. 58 specialists from SE RAW were trained under individual continuing training programmes.

In pursuance of the Company policy on cooperation with the secondary and higher educational institutions in the country, group professional practice of 103 students has been carried out.

In 2014, students from Belarus were trained in KNPP for a second time, which is recognition of the competence and professionalism of the Training Centre specialists. The one-week training in the field of emergency preparedness was provided for 3 specialists from the Armenian NPP.

KNOWLEDGE MANAGEMENT

The knowledge management in Kozloduy NPP is based on the IAEA documents and complies with the current standards, criteria and international experience in the nuclear industry where special attention is paid to this valuable resource.

The knowledge management process in KNPP is stipulated in „Knowledge management system" – a part of the quality assurance rules. The risk of nuclear knowledge loss of experts approaching retirement is being assessed applying a Nuclear Knowledge Capture Methology. The documents developed during the past year are supplemented with the required procedures and materials for the training of the specialists involved in the knowledge management process.

A part of the activities in this field is the exchange of information and transfer of knowledge with highly qualified experts in the nuclear energy who have already retired or left the plant. Throughout the past year a useful initiative by the Bulgarian Union of Nuclear Industry Veterans was launched aimed at conducting seminars with groups of medium managerial personnel and leading specialists from different units.

PROVISION OF RESOURCES

The Training Centre has a well-kept resource base for providing quality training - classrooms and conference rooms equipped with up-to-date training aids and computer training rooms, mock-up hall, workshops for professional training with real equipment. A full-scope simulator (FSS) for VVER-1000 reactors is installed in the Training Centre to cover all the regulatory requirements for operator training. It is continuously upgraded in compliance with the current state of the reference Kozloduy NPP Unit 6.

The library stock keeps about 2,600 printed editions – textbooks, reference books, dictionaries, scientific journals, scientific and technical information from periodic and scientific publications or specialized websites in the nuclear energy. The scientific and technical literature digitizing and publishing in the SmartDoc database continues.

INTERNATIONAL PROGRAMMES

The participation in international programmes and projects for development and implementation of innovative approaches, methodologies and tools contributes to keeping the high level of the specialized training in Kozloduy NPP. The activities of the CORONA Project – stage I under the EURATOM Treaty were completed in 2014. The project's main objective is the establishment of a regional centre of competence for VVER technology in the country and its co-operation with the European Nuclear Education Network ENEN. The successful accomplishment of the tasks on this project is a prerequisite for its development and improvement which has already received the support of the European Commission.

A joint project with the IAEA, connected with the integration of an e-learning system (BUL0010 Integrating a Cyber Learning Platform – CLP4NET into Kozloduy NPP plc Training System) is ongoing, on which training was delivered to administrators and instructors in December 2014.

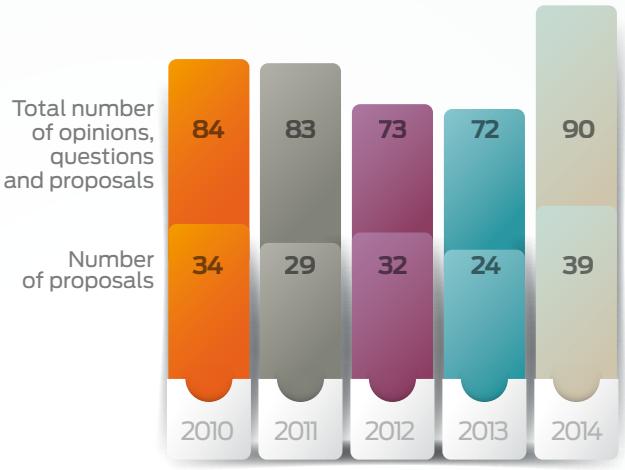
PUBLIC RELATIONS

IN-PLANT COMMUNICATIONS

Proficient in-plant communications underlie successful performance especially in a large-size organisation such as Kozloduy NPP. Throughout 2014, the company continued the running of a system of several mutually complementing communication channels, such as intranet, in-plant radio station, visual information displays, boxes collecting opinion and suggestion notes, informative leaflets, posters, etc.

The internal computerised network (intranet) enjoys the greatest popularity among the plant employees, especially its feature for submission of opinions and proposals. The chart below shows the number of proposals offered by the staff to the management over the past five years.

PROPOSALS OFFERED BY THE STAFF TO KOZLODUY NPP MANAGEMENT OVER THE LAST YEARS



The management team keeps a close watch on the employees' attitudes and expectations through the electronic opinion poll feature called Question of the Week. In 2014, the questions asked in this manner received a total of 28332 responses from the people working in the Kozloduy NPP.

The plant radio programme *NPP News,* broadcast on a daily basis, is another example of information channel received with enthusiasm by listeners on-site.

CONTINUOUS DIALOGUE WITH THE PUBLIC

In 2014, the Kozloduy NPP marked its 40th anniversary of effective and accident-free operation. A number of PR initiatives were dedicated to this anniversary in order to promote and popularise the activity of the largest power generating company in Bulgaria among various public layers, such as young people, local communities, former plant workers and employees and their families, and society in general.

Under the motto 40 Years in Green, forty trees were planted in the town of Kozloduy on 8 April 2014. This was a symbolic way to mark the long-standing commitment of the plant for clean environment. The event involved different generations connected with nuclear energy, such as young KNPP specialists, representatives of the Bulgarian and the International Union of Veterans in Nuclear, of the Women in Nuclear Association (WiN-Bulgaria), the Bulgarian Nuclear Society, the local Pensioners' Club, and the History Club at KNPP, as well as representatives of the local municipal authorities.

On 20 May 2014, an official ceremony took place in the Museum of Communications at the Central Post Office (Sofia) for the validation of a postage stamp dedicated to the 40th anniversary of Kozloduy NPP. This event attracted the attention of scores of stamp collectors who purchased the stamp for their collections immediately following its validation. The 11,000 copies of the stamp were distributed to branches of Bulgarian Posts PLC.

The young have always been in the focus of the consistent policy of Kozloduy NPP for effective dialogue with these people that are the future of the country. This is why two of the initiatives dedicated to the 40th anniversary were directed namely to this audience.

On 20 June 2014, the results were announced of the national competition among secondary school students for an essay entitled My words on Kozloduy NPP. Forty-one essays were received from 9 - 12 grade students studying at secondary schools all over Bulgaria, in towns such as Sofia, Plovdiv, Varna, Veliko Turnovo, Kyustendil, Svishtov, Vratsa, Kurdjali, Silistra, Montana, Yambol, Vidin, Rakitovo, and many others.

A team from the KNPP Public Relations Department met with students in seven schools located in Kozloduy, Mizia, Oryahovo, Vulchedrum and Lom, from 27 to 30 October, 2014. More than 380 schoolkids from different grades had the opportunity for the duration of one period to hear about the history, safety principles, power generation, corporate and social responsibility and many other aspects of the activity of the first nuclear power plant on the Balkans. Both the students and their teachers expressed their earnest desire for further meetings with the KNPP team, as well as for a visit to the power plant in the future. It was their unanimous opinion that such meetings are useful and should become traditional.

The festivity events reached their culmination point on 4 September, 2014, when a formal ceremony held in the House of Culture celebrated the 40th anniversary of the start up of the first nuclear power plant in Bulgaria, and in South-East Europe. The celebration brought together the pioneers in the construction and operation of facilities unique for our country, and their successors - the people currently working at the power plant. Among the distinguished guests were the chairman of the Bulgarian Academy of Science - acad. Stefan Vodenicharov, the chairman of the Bulgarian Nuclear Regulatory Agency - Assoc. Prof., Dr. Lachezar Kostov, Petar Danailov - Minister of Energy at the time of start up of Unit 1, Oved Tadjer – head of the construction activities on the nuclear power plant, and many others.

The anniversary gave occasion for the issuance of the chronicle *40 Years Kozloduy NPP*, which was distributed among the public attending the celebration on 4 September. The history of the plant was also narrated in the film *40 Years Kozloduy NPP – Pictures of the Construction of the Nuclear Power Plant*, as well as in the special issue of the First Nuclear periodical.

CONTENTS

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