



# ANNUAL REPORT

## 2023



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# MISSION

- operation, management and decommissioning of nuclear installations,
- radioactive waste management and transport,
- spent fuel management and transport.

## AUTHORISATION FOR THE PERFORMANCE OF ACTIVITIES BY THE ME SR

On the basis of the provisions of Act No. 541/2004 Coll. on peaceful use of nuclear energy (Atomic Act) and on the amendment to certain acts, as amended, the Ministry of Economy of the Slovak Republic has authorised JAVYS, a. s., on behalf of all operators of nuclear installations, to carry out activities related to the disposal of radioactive waste and spent fuel at national level.

JAVYS, a. s. is the only company that has professionally competent personnel, appropriate technical means, facilities built for the performance of these activities and holds authorisations issued by supervisory authorities.

All activities are carried out in accordance with the approved National Policy and National Programme for the Management of Spent Nuclear Fuel and Radioactive Waste in the Slovak Republic and in accordance with the principles of EC Directive 2011/70/Euratom.

# 01

## **ADDRESS BY THE CHAIRMAN OF THE BOARD OF DIRECTORS AND CHIEF EXECUTIVE OFFICER**





Ladies and Gentlemen,

The annual report is an important document that contains a summary of the activities carried out, significant milestones, the state of safety of operations and the Company's management for the past year, and is also a mirror of management decisions and the overall state of the Company. I am therefore pleased to be able to state that in each of the areas listed, we have continued to uphold our professionalism and expertise in 2023, while complying with all domestic and international legislative regulations and discharge limits.

In 2023, JAVYS, a. s. continued its main tasks, in particular the decommissioning of the two oldest nuclear power plants – A1 and V1 at Jaslovské Bohunice, with decommissioning carried out in accordance with the EIA process and the National Policy and National Programme. In parallel with these activities, it implemented radioactive waste (RAW) management processes in compliance with the conditions of nuclear safety, radiation protection, occupational health and safety, fire protection and environmental protection. In December 2023, Jadrová a vyradovacia spoločnosť, a. s. (JAVYS) made changes in the Company's bodies and management.

The decommissioning of A1 NPP continued with the dismantling of the primary circuit technological equipment and section valves, the PG3 and PG4 steam generators, the turbochargers, the heavy water management and downstream technological equipment. In the external structures of the A1 NPP, the activities in the ongoing stages were mainly focused on dismantling of technological equipment and building structures of the gas management structures, the liquid radioactive waste (RAW) storage facility, the solid RAW storage facility, remediation and sorting of contaminated soils, and monitoring and remediation of groundwater and groundwater seepage. The set plan of activities for 2023 in the field of A1 NPP decommissioning, including the management of RAW from A1 NPP decommissioning, has been fully implemented.

In the decommissioning of the V1 NPP, the implementation of the key project D4.2 "Dismantling of large-scale primary circuit components" continued, whose main objective, the dismantling of contaminated and activated equipment, was successfully achieved. The removal of activated/contaminated concrete from the Unit 1 reactor shaft was completed and the removal of activated/contami-



nated concrete from the Unit 2 reactor shaft continued. Within the scope of the project, the treatment of contaminated metallic materials from the decommissioning of the V1 NPP was carried out at fragmentation and decontamination facilities during 2023. During 2023, the implementation of the project D4.4C.01 "Dismantling of systems in the controlled area - Part 2, subproject D4.4C.01" continued. In parallel with the dismantling activities, the challenging process of managing the generated radioactive waste, its transportation and the release of materials meeting the criteria for release into the environment continued.

Nuclear safety, radiation protection, occupational health and safety, fire protection and environmental protection principles were observed in the decommissioning processes of both power plants. In this context, we note that JAVYS recorded no fires, no registered occupational accidents, and no occupational diseases in 2023. In 2023, the dose load on the population was so low that it is indistinguishable from the natural background radiation and the results of all measurements, analyses and inspections of the supervisory authorities confirm compliance with Slovak and international legislation and high reliability of the operating technologies of the nuclear installations.

In 2023, JAVYS reliably implemented and exceeded in technical units the annual plan for RAW and spent fuel (SF) management. At the same time, in 2023, we achieved the highest ever volume of revenues and income from RAW and SF management in the amount of approximately EUR 53 million.

For Slovenské elektrárne, a. s., Amendment No. 12 to the Contract for the Provision of Nuclear Services for 2023 was fully fulfilled in the area of the management of RAW and SF from the V2 NPP and EMO 1, 2 NPP. Also, the treatment of RAW from A1 NPP and V1 NPP decommissioning, which is reimbursed by the National Nuclear Fund and BIDSF, was at an all-time high.

I consider it very important to mention that in 2023 we completed a major international project for the Italian company SOGIN and all the treated Italian radioactive waste was transported safely in four shipments, in certified packages, back to Italy in December 2023. And with the same activity as was imported into Slovakia, as specified by the legislation in force. The shipment of the final products back to Italy was carried out on the basis of a permit issued by the Nuclear Regulatory Authority of the Slovak Republic.

In the area of international cooperation, in 2023 we continued to implement

activities under seven signed contracts and in an effort to penetrate even more distant markets, JAVYS, a. s. in cooperation with WAI, s.r.o., carried out training for the staff of the South African company NECSA in the area of cost estimation of decommissioning of nuclear installations and RAW management. In addition to the benefit in the form of revenues, the implemented international projects also bring references about the Company for the future and opportunities for the use of the acquired experience and further professional growth of JAVYS experts participating in their preparation and implementation. Last but not least, they also provide an opportunity for the Company to develop and establish itself on the market in an important segment of the nuclear industry.

The quality of our experts and professionalism in carrying out decommissioning activities is also confirmed by many important domestic and international visits and excursions to all our sites.

In 2023, JAVYS adopted energy saving measures in order to use purchased energy efficiently, reduce costs and save the environment. Also thanks to the implementation of the set measures, we were able to significantly reduce total electricity consumption and heat consumption for heating and DHW preparation compared to 2022. As of 31 December 2023, JAVYS, a. s. achieved an after-tax profit of EUR 4,296,903.

Finally, it cannot be forgotten that the smoothness of all processes is also conditioned by the high commitment, expertise and professional approach of the employees, as well as by the cooperation with the representatives of the local government concerned, the municipalities associated in the Bohunice and Mochovice Civic Information Commission, the regional associations and their correct and constructive approach and direct communication in the search for common consensual solutions. The open dialogue, support and understanding of all stakeholders is appreciated and is crucial for us in the development of the Company and in the continuation of the decommissioning processes.

JUDr. Vladimír Švigár,  
Chairman of the Board of Directors and Chief Executive Officer of JAVYS, a. s.

## **BODIES OF THE COMPANY**

**02**

## The Board of Directors of JAVYS, a. s.

### **Chairman**

Pavol Štuller, PhD., MBA  
*until 10 December 2023*  
JUDr. Vladimír Švigár  
*from 11 December 2023*

### **Vice-Chairman**

JUDr. Vladimír Švigár  
*until 10 December 2023*  
Ing. Tomáš Klein  
*from 11 December 2023*

### **Members**

Ing. Ján Horváth  
*until 10 December 2023*  
Ing. Miroslav Božík, PhD.  
*until 10 December 2023*  
RNDr. Peter Gerhart, PhD.  
*from 11 December 2023*

## The Supervisory Board of JAVYS, a. s.

### **Chairman**

RNDr. Ing. Pavol Švec, CSc.

### **Vice-Chairman**

Mgr. Anna Paľovová *until 10 December 2023*

### **Members**

Ing. Róbert Szűcs *until 10 December 2023*  
Ing. Martina Dopiráková *until 10 December 2023*  
Pavol Žák *until 10 December 2023*  
Dr.h.c.mult. prof. Ing. Jozef Živčák, PhD., MPH.  
RNDr. Tibor Rapant, PhD.  
Ing. Ivana Ščasnovičová, PhD.  
RNDr. Roman Jakubec  
Mgr. Zoran Kupkovič *from 11 December 2023*  
JUDr. Bc. Lenka Hmírová, RSc., *from 11 December 2023*  
JUDr. Róbert Spál, LL.M, MBA, *from 11 December 2023*  
Doc. RNDr. Eva Viglašová PhD., *from 11 December 2023*

## EXERCISE OF SHAREHOLDERS' RIGHTS

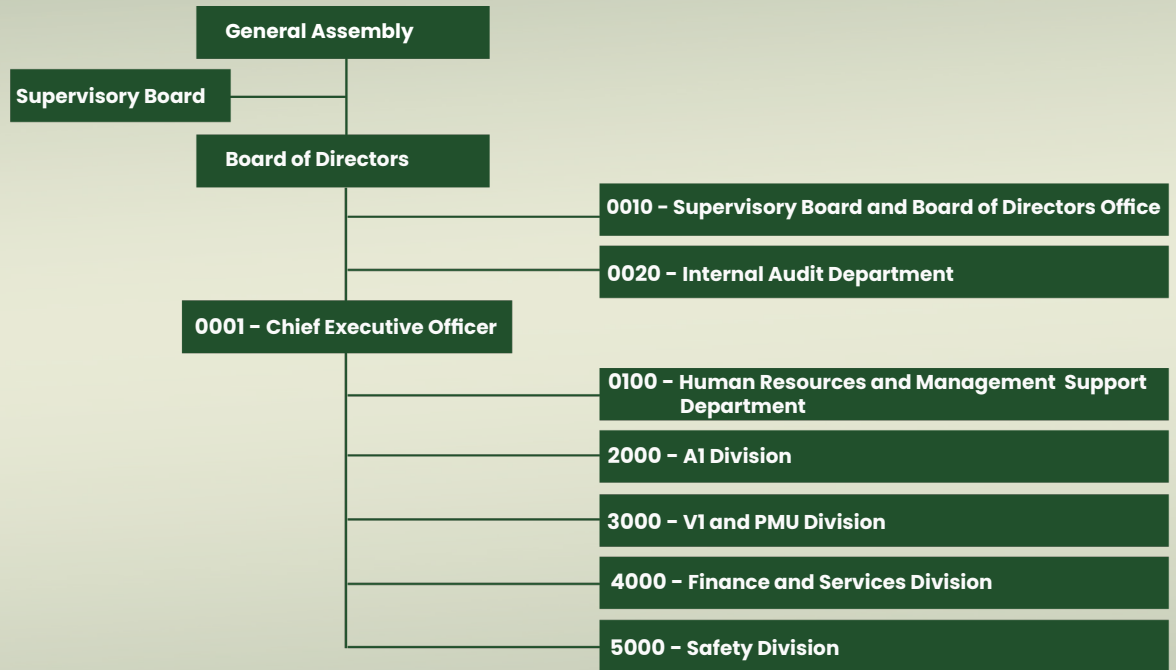
Jadrová a vyrad'ovacia spoločnosť, a. s. exercises shareholders' rights in Jadrová energetická spoločnosť Slovenska, a. s., in a joint venture with a foreign shareholder, in which JAVYS, a. s. owns a 51 % stake and the Czech energy group ČEZ owns 49 % of the shares in Jadrová energetická spoločnosť Slovenska, a. s. The creation of Jadrová energetická spoločnosť Slovenska, a. s. has opened up space for the preparation of the project for the construction of a new nuclear power plant and other activities in Jaslovské Bohunice, with the Company's activities being fully governed by the applicable provisions of the Commercial Code and the Articles of Association of the Company.



# ORGANISATIONAL STRUCTURE AND HUMAN RESOURCES

**03**

# ORGANISATIONAL STRUCTURE



# HUMAN RESOURCES

As of 31 December 2023, JAVYS, a. s., had the number of employees on the register 733, which is 42 employees less compared to the number of employees as of the same period last year.

EMPLOYEE STRUCTURE		
	as of 31 December 2023	Share in %
Blue collar workers	124	16.92
Technical-administrative employees	609	83.08
<b>Total</b>	<b>733</b>	<b>100.00</b>

EMPLOYEE STRUCTURE BY EDUCATION		
	as of 31 December 2023	Share in %
Primary	0	0.00
Secondary	429	58.53
University	304	41.47
<b>Total</b>	<b>733</b>	<b>100.00</b>

# EMPLOYEE TRAINING AND EDUCATION

Training and education of employees is an important process of development of qualified personnel for implementation of specific activities of operation and decommissioning of nuclear installations of the licence holder JAVYS, a. s. Qualified staff is a key element of the Company and brings improvement and efficiency to the Company's operations. The Integrated Management System Manual defines the Policy of Training of Employees of JAVYS, a. s., where the main objective of the Company is set:

**Preparing and maintaining competent personnel to ensure the safe, reliable, environmentally sound and economical operation of the Company's nuclear installations in the spirit of the principles of safety culture and ALARA principles.**



Jadrová a vyraďovacia spoločnosť, a. s., approaches the development of human resources in accordance with the planned and approved concepts for the development of education and training of employees. The process of employee education and training is planned in advance and subject to control by the supervisory authorities. It is ensured and implemented in accordance with the legislation, defined in the management documentation – the system of professional training of employees. Training programmes and the content of educational activities are regularly reviewed and updated in the light of changes in the technology of nuclear installations.

In 2023, the fulfilment of the objective was monitored by the state supervision authorities in the field of education and training of employees in accordance with Act No. 541/2004 Coll. (Atomic Act) and Decree of the NRA SR No. 52/2006 Coll. on professional competence as amended by Decree of the Authority No. 34/2012 Coll., Decree of the Authority No. 410/2019 Coll., and Decree of the Authority No. 355/2023 Coll. The training was carried out in accordance with the annual training schedules and requirements of the professional departments. In the context of the operating and decommissioning authorisations for nuclear installations, all the conditions for the professional competence of employees have been met.

The main priority of training for the performance of professional activities was the fulfilment of the requirements of Act No. 124/2006 Coll., Decree No. 508/2009 Coll. of the MLSAF SR and other legislation, with a focus on the safe conduct of work activities at nuclear installations.

Motivation tools on the part of the employer and the initiative to “grow professionally” on the part of the employee lead to increasing and deepening the qualification of the Company’s staff. In 2023, training, courses and seminars beyond the scope of legislation were provided, and educational activities focused on decommissioning of nuclear installations, managerial management, lecturing skills, environment and waste management, economics, finance, controlling and reporting, radiation protection, nuclear and conventional safety, cybersecurity and personal data protection were carried out.

The training was carried out in the form of video presentations, online trainings/seminars/courses. In cooperation with lecturers, lecturing was provided through pre-recorded video lectures and video presentations.

The nuclear installations of JAVYS, a. s. were operated by competent personnel who ensured safe, reliable, environmentally friendly and economical operation so that the nuclear and conventional safety of nuclear installations was not compromised.

# STRATEGY AND QUALITY ASSURANCE

04



# STRATEGY

The strategy of JAVYS, a. s., is to fulfil the vision and mission of the Company while respecting the Energy Security Strategy of the Slovak Republic and the National Policy and National Programme for the Management of Spent Nuclear Fuel and Radioactive Waste in the Slovak Republic, as well as important decisions of the supervisory authorities, and the implementation of the strategy of JAVYS, a. s., in 2023 took place in the following strategic areas:

## **a) RAW, SF, IRAW and RMUO management**

JAVYS, a. s. implemented all planned activities related to the management of RAW, SF, IRAW and RMUO in accordance with the National Policy and National Programme for the Management of Spent Nuclear Fuel and Radioactive Waste in the Slovak Republic and the Comprehensive Programme for the Management of RAW and SF in JAVYS, a. s.

## **b) Decommissioning of the A1 NPP nuclear installation**

The tasks related to the safe, efficient and reliable decommissioning of the A1 NPP in accordance with the Draft National Policy and National Programme for the Management of Spent Nuclear Fuel and Radioactive Waste in the Slovak Republic, the Plan for Stages III and IV of A1 NPP decommissioning and the decommissioning concept for the period after the end of the authorised phase were fulfilled within the set deadlines.

## **c) Decommissioning of the V1 NPP nuclear installation**

Tasks related to the safe, efficient and reliable decommissioning of the V1 NPP in accordance with the NPP V1 Stage II Decommissioning Plan, the V1 NPP Decommissioning Strategy, the Detailed Decommissioning Plan and the planning documents of JAVYS, a. s., and in accordance with the Draft National Policy and National Programme for the Management of Spent Nuclear Fuel and Radioactive Waste in the Slovak Republic were fulfilled within the set deadlines.

## **d) Company development**

JAVYS, a. s., carried out activities related to the preparation and implementation of approved investment projects and actions.

#### **e) Finance and services**

In line with the strategy of an economically stable company, EBITDA performance was ensured at the level set in the business plan and financial budget for 2023.

#### **f) Company management**

Within this area, an effective management system of JAVYS, a. s., was developed in accordance with the approved concept of the strategy for VI NPP and A1 NPP decommissioning and the National Policy and National Programme for the Management of Spent Nuclear Fuel and Radioactive Waste in the Slovak Republic through:

- the implementation of the 2nd periodic audit in accordance with the requirements of ISO 9001:2015 for the quality management system, ISO 14001:2015 for the environmental management system and ISO 45001:2018 for the occupational health and safety management system,
- the implementation of the 1st periodic audit in accordance with the requirements of ISO/IEC 27001:2013 for the information security management system,
- the training of employees for safe, reliable, ecological and economical operation of the Company's production and technological facilities in accordance with the principles of safety culture and ALARA principles, with a minimum impact of the human factor on the occurrence of operational incidents,
- the development of information technologies (central network elements were upgraded, system and application infrastructure was updated, cybersecurity requirements as well as the requirements of the Cybersecurity Act were introduced in the infrastructure of JAVYS, a. s.).

JAVYS, a. s., built a good reputation in this area in the internal and external environment as a trustworthy institution, with an emphasis on the social significance of the Company's activities, the protection of health of the population and the environment, while the level of management of the occupational health and safety system was increased and permanently improved with the aim of limiting potential health hazards due to the impact of technological processes, technical equipment, people's activities and the working environment.

### **g) International commercial activities**

JAVYS, a. s., continued to win new contracts in 2023 in consulting projects for decommissioning of nuclear installations and management of RAW and IRAW.



## QUALITY ASSURANCE

In 2023, JAVYS, a. s., maintained its certificates according to ISO 9001:2015 for the quality management system, ISO 14001:2015 for the environmental management system and ISO 45001:2018 for the occupational health and safety management system as part of the 2nd periodic audit. The certificates are valid until 10 February 2025 for the focus area "Decommissioning of nuclear installations and management of radioactive waste, institutional radioactive waste, radioactive materials of unknown origin and spent fuel".

In 2023, JAVYS, a. s., also passed the 1st periodic audit according to ISO/IEC 27001:2013 for the information security management system. That certificate is valid until 24 July 2025 for the focus area "Management of systems for the decommissioning of nuclear installations and for the management of radioactive waste, institutional radioactive waste, radioactive material of unknown origin and spent fuel in accordance with the Statement of Applicability, ver. 02, issued 2022/06/13".

The long-term goal of JAVYS, a. s., is to present itself as a trustworthy company that carries out activities related to the decommissioning of nuclear installations and the management of radioactive waste, institutional radioactive waste, radioactive material of unknown origin and spent fuel at a high quality level, with maximum emphasis on safety, protection of health of employees and inhabitants of the region, as well as the protection of the environment. Achieving or maintaining certification also shows that the Company is functioning, carrying out its mission within internationally recognised standards and is safely managed.

# **YEAR AT A GLANCE**

**05**



## 26 January

JAVYS, a. s., was visited by representatives of the Turkish Nuclear Energy Company (TUNAS). In the information centre of JAVYS, a. s., in Jaslovské Bohunice, they watched films about the decommissioning of the A1 and V1 nuclear power plants and were presented the activities of JAVYS, including its commercial services. The professional programme of the foreign experts continued with a visit to the National Radioactive Waste Repository (NRWR) in Mochovce, where they got acquainted with the history and operation of the JAVYS facilities at the Mochovce site.

## 2 February

JAVYS paid the highest income taxes and was awarded the MERCURY 2022 award. The Financial Administration honoured the largest income tax payers for the 2021 period of taxation. JAVYS ranked highest among all companies in the Trnava region and together with nine companies registered at the tax offices in individual regions, which paid the highest income tax of all companies as well as within the Tax Office for Selected Taxpayers (TOfST).

## 21 April

A Croatian group of more than twenty members arrived at the Mochovce National RAW Repository (NRWR). It consisted mainly of representatives of local communities from the region where the Croatian radioactive waste repository is to be built and representatives of the Fund for Financing the Decommissioning of the Krško Nuclear Power Plant. In Slovakia, in addition to the experts responsible for the operation of the NRWR, they met with representatives of local government and representatives of various communities to get answers to questions related to the operation of a nuclear installation.

## 5 May

More than forty students of the Slovak University of Technology, Faculty of Chemical and Food Technology, Department of Environmental Engineering came to JAVYS to broaden their knowledge and gain new experience. The students, future chemists, visited the information centres A1 and V1 in Jaslovské Bohunice, where they got acquainted with basic information about decommissioning of both nuclear power plants and other activities of JAVYS. They visited



the chemical water treatment plant and the BIOCLAR site (wastewater treatment plant), whose operations are directly related to the focus of their study.

### **13 June**

Top German expert, Dr. Ing. Siegfried Standke, who more than three decades ago was involved in the development of the C-30 spent nuclear fuel transport container, which is still in use by JAVYS today, visited JAVYS. He viewed with interest and enthusiasm the Interim Spent Fuel Storage (ISFS) facility and the newly constructed spent fuel storage facilities. Finally, he did not miss the exposures of the information centres of the A1 nuclear power plant and the V1 nuclear power plant.

### **26 – 27 June**

Spoločnosť JAVYS, a. s., sa v rámci Within the development of internal processes and activities, JAVYS, a. s. also focuses on increasing the level of information security management and protection of information assets, as the security of confidential information is emphasized as an important strategic element in the Company.

Auditors from the certification company DNV Business Assurance Slovakia, s.r.o. examined the compliance with the requirements of ISO/IEC 27001:2013 standard for information security management system during the 1st periodic audit. JAVYS, a. s., has maintained its certificate according to the above mentioned standard.

### **28 June**

Representatives from Hungary, the Czech Republic, Slovakia, Slovenia, Norway, Sweden, Spain, the Netherlands, Belgium and the United Kingdom represent the interests of the municipalities in the GMF Europe grouping that are located in Europe close to nuclear installations. They visited the National RAW Repository (NRWR) in Mochovcce, where they saw the double-rows for placing fibre-concrete containers, the soil storage areas and the low- and very low-level radioactive waste storage facilities.

### **17 July**

JAVYS, a. s., and Westinghouse Electric Company LLC signed two Memorandums of Understanding (MoUs) and thus created a space for cooperation in the field of nuclear energy

and in the implementation of projects aimed at the development of small modular reactors (SMRs).

### **20 July**

Minister hospodárstva, Peter Dovhun Minister of Economy Peter Dovhun and State Secretary Branislav Sušila met with the management of JAVYS at the Company's premises in Jaslovské Bohunice. The subject of the meeting were current topics related to the decommissioning processes of the A1 and V1 nuclear power plants, radioactive waste treatment, construction of new nuclear sources, preparation of the project and construction of a deep repository, continuation of the RES projects of the subsidiary JESS, as well as training of future professionals.

### **24 July**

Spoločnosť JAVYS a Ekonomická JAVYS and the University of Economics in Bratislava will cooperate in the field of scientific research and education. By signing the Memorandum of Understanding (MoU), both institutions expressed their will to contribute to the development of a knowledge-based society. The aim of signing the MoU was to define a framework for mutually beneficial

cooperation. Both institutions have the will to cooperate through the provision of mutual assistance, target-oriented to the areas of interest of both parties to the MoU, in order to provide qualified, efficient and flexible, mutually coordinated solutions to tasks of their own and societal interest.

#### **25 August**

JAVYS, a. s., and Électricité de France S.A (EDF) signed a Memorandum of Understanding (MoU) in Paris during the official visit of the Minister of Economy, Peter Dohun, which opens further space for cooperation between the Slovak Republic and France in the field of nuclear energy and in the implementation of projects aimed at the development of the construction of nuclear installations and small modular reactors (SMRs).

#### **19 September**

The Nuclear Regulatory Authority of the Slovak Republic (NRA SR) hosted a scientific visit of experts from the Nuclear and Radiation Safety Centre (NSC) of the People's Republic of China, organised in the structure of the Technical Cooperation Programme of the International Atomic

Energy Agency (IAEA). Their programme also included a visit to the JAVYS information centre in Jaslovské Bohunice, where they were particularly interested in the decommissioning processes of the V1 nuclear power plant. The aim of the visit was to strengthen the expert capacities of the NSC and to exchange experience in the field of decommissioning of nuclear installations and radioactive waste management, including nuclear safety aspects and radiation protection.

#### **20 September**

The regular all-area emergency exercise "Pínia (Stone Pine) 2023" with simulation of several emergency events was held in the premises of JAVYS in Jaslovské Bohunice, where procedures for classification, localisation and elimination of simulated events at nuclear facilities, functionality of the internal warning and notification system, communication between all involved units, time limits, functionality of technical means and evacuation of persons were verified. The exercise verified the emergency response preparedness and fulfilled the legal require-

ments. There were 611 participants.

#### **4 October**

JAVYS and the Faculty of Natural Sciences of the Comenius University in Bratislava will cooperate in the field of scientific research and education. By signing the cooperation document, both institutions expressed their will to contribute to the development of a knowledge-based society.

#### **13 October**

Seventeen representatives from all over the world visited for the first time the decommissioned V1 nuclear power plant to see how the European BIDSF funds are actually used in practice. Board advisors from the European Bank for Reconstruction and Development visited the controlled area where they had the opportunity to see the progress made on the V1 decommissioning projects, which was followed by a number of technical video presentations in the information centre.

#### **18 October**

Members of the Supervisory Board, the Board of Trustees and the management of the National Nuclear Fund of the Slovak Republic met with the management of JAVYS in Jaslovské Bohunice, where they jointly inspected

the new storage facilities for spent fuel (SF) and got acquainted with the current development of the investment project “Completion of SF storage capacity”, which has been implemented since 2017. They were also accompanied by the general contractor of the investment project, where they were presented in detail the results of the implemented tests of the construction and technological parts.

#### **6 – 8 November**

During the 2nd periodic audit of the IMS, auditors from the certification company DNV Business Assurance Slovakia, s. r. o. verified compliance with the requirements of ISO 9001:2015 for the quality management system, ISO 14001:2015 for the environmental management system and ISO 45001:2018 for the occupational health and safety management system. JAVYS, a. s. has maintained its certificates according to the above standards.

#### **21 December**

The fourth and last transport of final products from the radioactive waste treatment of the Italian company SOGIN was shipped back to Italy from Jaslovské Bohunice. All four

transports were completed during December 2023.

#### **2023**

As part of the decommissioning process of the AI and VI Nuclear Power Plants, JAVYS, a. s., returned 1,700 tonnes of metal waste from decommissioned material to the recycling process in 2023.

JAVYS, a. s., carried out four transports of spent fuel (SF) from the V2 Nuclear Power Plant in Jaslovské Bohunice and one transport of SF from the Nuclear Power Plant in Mochovce to the Interim Spent Fuel Storage Facility in Jaslovské Bohunice. In addition, JAVYS, a. s. provided the activities of the technical and emergency group in the execution of eleven transports of fresh nuclear fuel (FNF) from the producer of FNF for the operating units of the nuclear power plants of SE, a. s., three of which were carried out in the form of rail transports and eight in the form of air-road transports.

JAVYS provided for nine interventions for capturing radioactive materials of unknown origin (RMUO).



# **DECOMMISSIONING OF NUCLEAR INSTALLATIONS**

**06**

# V1 NPP DECOMMISSIONING

The objective of V1 NPP decommissioning is to achieve the exclusion of the V NPP site from the scope of the Atomic Act. This objective is accomplished through activities related to the dismantling of systems and equipment, decontamination of building surfaces with the following demolition of buildings and backfill, cleaning of the site, management of material from V1 NPP decommissioning, safe disposal of radioactive waste (RAW) in the National RAW Repository in Mochovec, or its safe storage in the Integral RAW Storage Facility in Jaslovské Bohunice. The V1 NPP site will be released for further industrial use after the decommissioning is completed. The decommissioning of the V1 nuclear power plant in Jaslovské Bohunice consisting of two units is planned through partial projects in two stages:

- 1.      *Stage 1 (20 July 2011 – 31 December 2014)***
- 2.      *Stage 2 (01 January 2015 – 31 December 2027)***

On 23 December 2014, the Nuclear Regulatory Authority (NRA) of the SR issued Decision No. 900/2014, on the basis of which the implementation of the second stage of decommissioning of the V1 NPP started in 2015. It included the permit for RAW management. During 2021, the original decommissioning completion date was revised (31 December 2025). After the analysis of the critical path of V1 NPP decommissioning, determination of the causes of deviations from the original decommissioning plan, evaluation of options for further procedures, risks, and adoption of measures, the date of decommissioning completion in December 2027 was adopted with the consent of all concerned parties (i.e. the European Commission, the Ministry of Economy of the Slovak Republic, the Slovak Innovation and Energy Agency, the European Bank for Reconstruction and Development). However, the achievement of this deadline is conditional on the achievement of the deadlines set in the revised critical path for decommissioning and the timely procurement of project D4.7.01 "Decontamination and demolition of V1 NPP buildings and site reinstatement".

During 2023, the implementation of V1 NPP decommissioning activities continued in accordance with the Plan for Stage 2 of Decommissioning and in accordance with the decision of the NRA SR for Stage 2 of V1 NPP decommissioning.



# MAIN V1 NPP DE-COMMISSIONING ACTIVITIES IN 2023

- securing and disconnecting systems,
- implementation of projects:
- support surveys for the needs of V1 NPP decommissioning,
- dismantling of unnecessary equipment and systems in the controlled area of the V1 NPP,
- dismantling and fragmentation of equipment and large-scale components of the primary circuit of both V1 NPP units,
- modifications to equipment and systems used in the V1 NPP decommissioning,
- radioactive and non-radioactive (hazardous and other) waste management,
- preparation of technical documentation for the V1 NPP Stage 2 decommissioning projects.





In 2023, the implementation of the key project of VI NPP decommissioning D4.2 “Dismantling of large-scale primary circuit components” continued; its main objective is the dismantling of contaminated and activated equipment (reactor pressure vessels of both units, reactor internals, steam generators, main circulation pumps, main shut-off valves, primary circuit piping and other primary circuit technological components) in the controlled area of the main reactor building of VI NPP.

In 2023, after the fragmentation of contaminated and activated equipment had been completed, the dismantling of the workplaces for large-scale primary circuit component fragmentation (wet cutting and dry cutting workstations) as well as other unnecessary workstations and equipment for component fragmentation, packaging and transportation was completed. The removal of activated/contaminated concrete from the Unit 1 reactor shaft was completed and the removal of activated/contaminated concrete from the Unit 2 reactor shaft continued. The removal of the lining from the containment area equipment was completed. Subsequent to the completion of the dismantling/demolition work, room clearance and cleaning was carried out. Preparation of as-built documentation, accompanying documentation and photo/video documentation of the work executed started. Within the scope of the project, the treatment of contaminated metallic materials from the decommissioning of the VI NPP was carried out at fragmentation and decontamination facilities during 2023. From June 2019, when the operation of the fragmentation and decontamination lines at the VI NPP started, to the end of 2023, 3,868 t of metal contaminated material was processed, including 836 t in 2023. Of the 3,868 t of metal contaminated material in question, 3,508 t of recoverable materials were released into the environment after decontamination.

During 2023, the implementation of the project D4.4C.01 “Dismantling of systems in the controlled area – Part 2, subproject D4.4C.01” continued.

In 2023, as part of this project, activities of sludge removal from the tanks, decontamination of tank surfaces and subsequent dismantling and fragmentation of the tanks, removal of unnecessary equipment, piping, systems, electrical cables, and electrical equipment were executed.

In parallel with the dismantling activities, the challenging process of managing the generated radioactive waste, its transportation and the release of materials meeting the criteria for release into the environment continued.

### **Processing of periodic documents**

VI NPP decommissioning is managed by JAVYS, a. s., in compliance with Council Regulation (EURATOM) 2021/100 of 25 January 2021, in accordance with the Detailed Implementation Procedures defined in the current Work Programme and in line with the requirements of the European Commission. In this context, JAVYS, a. s., prepared the following periodic documents in the course of 2023:

### **Monitoring reports for the Bohunice Programme**

Since 2015, regular bi-annual monitoring reports have been produced to assess progress in the decommissioning of the VI NPP for the relevant half-year period. These documents are used by the Monitoring Committee to compare the planned objectives of the Detailed Decommissioning Plan with the results achieved during the monitoring period. In 2023, two monitoring reports were produced – the first for the evaluation period of the 2nd half of 2022 and the second for the evaluation period of the 1st half of 2023.

### **Work Programme (for 2023 and 2024)**

The document set targets, projected data for the calculation of VI NPP decommissioning performance indicators and a timetable for the disbursement of funds for the calendar year 2023. The document served as a basis for the European Commission to monitor the progress of VI NPP decommissioning in 2023.

### **Monitoring and audit**

Regular visits by representatives of the European Commission (“Monitoring Mission”) to monitor progress in VI NPP decommissioning took place at the VI NPP site in April and November 2023. Participants of the visits were representatives of the European Commission, EBRD, SIEA and ME SR. Neither the European Commission nor the EBRD conducted any audit at JAVYS, a. s., in 2023.

### **Bohunice Programme**

VI NPP decommissioning activities are co-financed from EU sources through the Bohunice Programme – a programme to provide EU financial support for measures related to the decommissioning of the VI NPP. The EU funds are managed by two delegated entities. The first delegated entity is the European Bank for Reconstruction and Development (EBRD), which manages the Bohunice International Decommissioning Support Fund (BIDSF). The second delegated entity is the Slovak Innovation and Energy Agency (SIEA).

The funds from the BIDSF for the implementation of individual VI NPP decommissioning projects are

drawn on the basis of grant agreements concluded between JAVYS, a. s., and the EBRD. The actual signing of the agreements is preceded by the preparation of documentation for individual projects, when JAVYS, a. s., as a beneficiary of assistance from the BIDSF, first identifies individual projects, proposes the method of their technical implementation and financing, and finally defends them through the Programme Coordinator (the ME SR) at the meeting of the Assembly of Contributors of the BIDSF, which is held once a year. By the end of 2023, JAVYS, a. s. had eighteen grant agreements signed with the EBRD for the financing of VI NPP decommissioning projects in the total amount of EUR 502.5 million.

In August 2016, the national agency for VI NPP decommissioning – SIEA – started its activities. The SIEA represents a parallel route of funding VI NPP decommissioning projects from the European Union (EU) in addition to funding through the implementing body – EBRD.

EU funding for the Bohunice Programme has been distributed between the two implementing bodies since 2016. By the end of 2023, JAVYS, a. s., had two grant agreements signed with the SIEA in the total amount of EUR 181.6 million. Specifically, this was for projects D4.4C.01 “Dismantling of systems in the controlled area of the VI NPP – Part 2, subproject D4.4C.01” and D4.7.01 “Decontamination and demolition of VI NPP buildings and site reinstatement, subproject D4.7.01”.

An amount of EUR 55 million for the Bohunice Programme is approved from EU sources under the Multi-annual Financial Framework 2021-2027, conditional on a fifty percent co-financing from Slovak sources. The total estimated cost of VI NPP decommissioning is EUR 1,220 million, with EU funding to cover an amount of EUR 735 million.

### **Projects awarded an EU grant in 2023**

No new projects were awarded an EU grant during 2023 – only modifications were made to four existing grant agreements.

### **Contracts concluded for BIDSF projects in 2023**

No contract with a new contractor was concluded during 2023. Only amendments to contracts with existing contractors were signed (Amendment No. 9 for project D4.2, Amendment No. 3 for project B6.6A and Amendment No. 11 for project A1.11)

## Projects under implementation during 2023

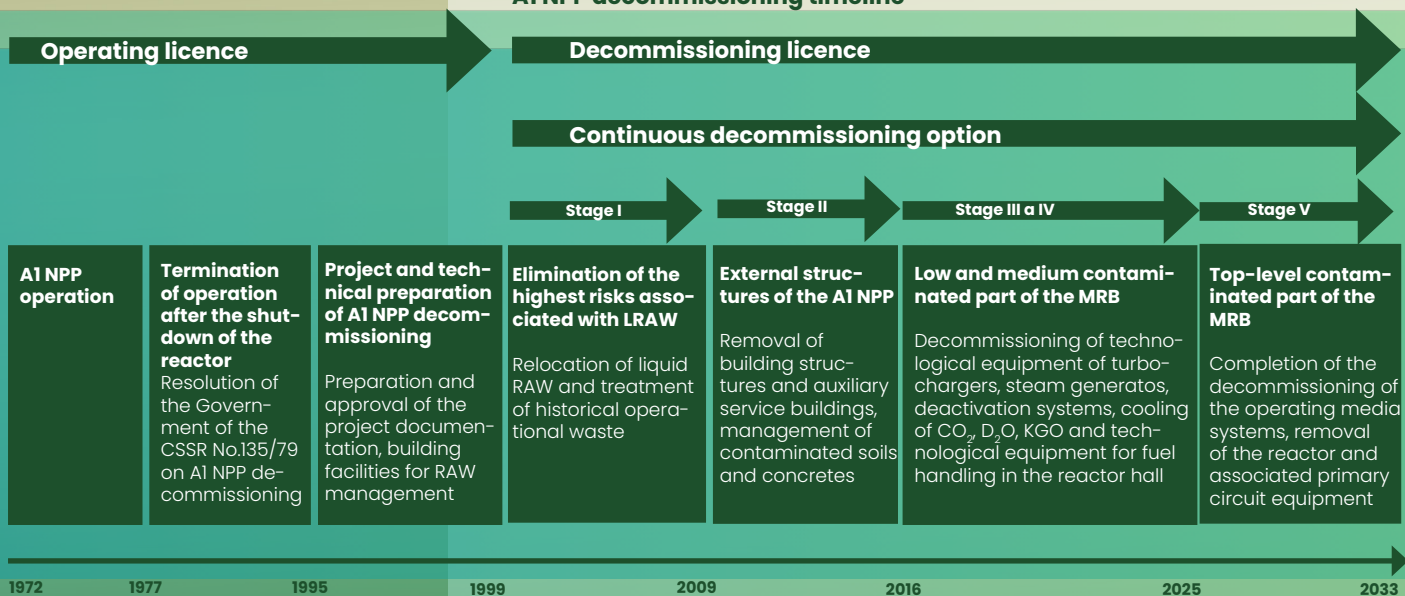
Project code	Project name	Course of implementation
A1.11	PMU consultant (Stage 11)	06/2021 - 12/2023
B6.6A	Decommissioning support surveys	03/2017 - 12/2024
D0	Implementation of the decommissioning programme using the human resources available at Bohunice V1 NPP	01/2023 - 12/2023
D4.2	Dismantling of large-scale primary circuit components	10/2017 - 07/2025
D4.4C.01	Dismantling of systems in the controlled area of the V1 NPP – Part 2, subproject D4.4C.01	08/2019 - 02/2025

As of 31 December 2023, a total of sixty-six V1 NPP decommissioning projects had been completed, five projects were under implementation and project D4.7.01 (*“Decontamination and demolition of V1 NPP buildings and site reinstatement, subproject D4.7.01”*) was under procurement.

# A1 NPP DECOMMISSIONING

A1 NPP decommissioning is executed in accordance with the EIA process and the National Policy and National Programme for the Management of Spent Nuclear Fuel and Radioactive Waste in the Slovak Republic. It is divided into five continuously successive stages, with the planned completion of Stage V of A1 NPP decommissioning in 2033. The implementation of Stage I of the A1 NPP decommissioning started in 1999 and was completed in 2009. In 2009, A1 NPP decommissioning Stage II started, which, based on the achievement of all the objectives set out in the licensing documentation approved by the central government authorities, was completed as of 30 September 2016. On the basis of the licences issued by the Nuclear Regulatory Authority of the Slovak Republic and the Public Health Authority of the Slovak Republic, A1 NPP decommissioning Stages III and IV started on 1 October 2016 as a follow-up to completed Stage II, in compliance with the documentation assessed and approved by the central government authorities.

## A1 NPP decommissioning timeline



The subject of the ongoing Stages III and IV of A1 NPP decommissioning is defined by the central government authorities in the assessed and approved document Plan of Stage III and Stage IV of A1 NPP Decommissioning, and its main activities in the main reactor building are vitrification of chrompik with activity of  $10^{11}$  Bq/dm<sup>3</sup> which was originally used as a cooling medium for A1 SF, disposal of radiologically significantly contaminated casings originating from the process for long-term storage of A1 SF, the dismantling of the primary circuit technological equipment and section valves, the PG3 and PG4 steam generators, the turbochargers, the heavy water management and downstream technological equipment for the above technological systems, as well as the equipment installed for the preparation of spent fuel for transport to the RF. In the external structures of the A1 NPP, the activities in these ongoing stages are mainly focused on dismantling of technological equipment and building structures of the gas management structures, the liquid RAW storage facility, the solid RAW storage facility, remediation and sorting of contaminated soils, and monitoring and remediation of groundwater and groundwater seepage. At the

same time as the above activities, an integral part of the decommissioning process, which is management of the produced RAW, is continuously taking place.

**In accordance with the objectives of Stages III and IV of A1 NPP decommissioning, the following activities were mainly carried out in 2023:**

- fragmentation of 35 pieces of casings originating from the long-term storage process of A1 NPP SF, which remained in the Slovak Republic after the A1 NPP SF had been shipped to the RF,
- vitrification of 2 m<sup>3</sup> of chrompik III medium, used as a coolant in SF casings for long-term storage,
- treatment of 6.582 m<sup>3</sup> of sludge phases and drainage water from the MRB on the SUZA line (mobile fixation equipment), with the formation of 116 pcs of 200 l drums of fixed product,
- treatment of 5.65 m<sup>3</sup> of sludge from the tanks of outdoor facilities on the SFP (sludge fixation plant), with the creation of 71 pcs of 200 l drums of fixed product,
- continuation of dismantling activities of the primary circuit tech-

nological equipment and technological equipment located in the reactor hall, decommissioning of the decontamination line of the water of the long-term storage (LTS) pool and the SUZA LTS, the emergency flooding tank room, the dosimetry control room, dosimetry instrument storage and repair shop, drain header box facilities, operator's room and rod cutting chamber, storage casings, process duct protection area for residual heat removal of SF, and the "avial" vessel washing and storage area in the reactor hall (RH) in the reactor building,

- continuation of dismantling activities of the PG3 and PG4 process steam generators, decommissioning of process equipment of piping spaces and box of stand valves and turbochargers in the intermediate machine room,
- removal of the above-ground part of the liquid RAW storage building, dismantling of the ceilings of the N1/2 and N1/3 tanks and backfilling of the N1/1 and N1/3 tanks of the liquid RAW storage building,
- decontamination of building structural parts in external structures,
- remediation, monitoring and sorting of contaminated soils and concrete, monitoring and remediation



of groundwater and groundwater seepage.

At the same time, in 2023, the documentation necessary for the issuance of relevant permits for the implementation of Stage V of AI decommissioning by central government authorities of the Slovak Republic was under preparation.

By continuously reducing the inventory of radioactivity through decontamination and dismantling of technological equipment, systems and building structures of the decommissioned AI NPP structures and by continuing the processing of decommissioning RAW and historical operational RAW, JAVYS, a. s., in 2023 implemented all planned activities of AI NPP decommissioning in accordance with the work schedule for 2023.

The set plan of activities for 2023 in the field of AI NPP decommissioning, including the management of RAW from AI NPP decommissioning, has been fully implemented, in compliance with the principles of nuclear safety, radiation protection, occupational health and safety, fire protection and environmental protection. In the area of AI NPP decommissioning, JAVYS, a. s. fulfilled the planned targets for 2023 based on the sched-

ule of activities defined in the document Plan of Stage III and Stage IV of AI NPP Decommissioning, thus creating optimal conditions for smooth continuation of the continuous decommissioning process of AI NPP in the next period.



# **RADIOACTIVE WASTE MANAGEMENT**

**07**

In 2023, all activities within the radioactive waste (RAW) management processes took place in the following nuclear installations in compliance with the conditions of nuclear safety, radiation protection, occupational health and safety, fire protection and environmental protection:

■	RAW TCT	- RAW Treatment and Conditioning Technology in Jaslovské Bohunice,
■	LRW FTF	- Liquid RAW Final Treatment Facility in Mochovce,
■	NRWR	- National RAW Repository in Mochovce,
■	IRAWS	- Integral RAW Storage Facility.

### **RAW treatment and conditioning**

The execution of the decommissioning process of the A1 and V1 NPPs in the scope of RAW management from the decommissioning of these nuclear installations, the management of RAW from the operated units of the V2 NPP, EMO 1,2 and EMO 3 of Slovenské elektrárne, a. s., as well as the management of RAW from non-nuclear facilities is a key task for the operation of the nuclear installations RAW Treatment and Conditioning Technology in Jaslovské Bohunice and Liquid RAW Final Treatment Facility in Mochovce. The RAW TCT nuclear installation consists of the Bohunice RAW Treatment Centre (BSC), a low-level water treatment plant, radioactive waste sorting workplaces, workplaces for fragmentation and decontamination of metallic radioactive materials, workplaces for the treatment of used air-conditioning filters and electrical cables, and metallic RAW remelting facility.

The LRW FTF nuclear installation operates facilities mainly for the treatment of radioactive concentrates and saturated ion exchangers from the EMO 1,2 operation.

The low-level radioactive waste is finally conditioned by cementation in fibre-concrete containers at the RAW TCT and LRW FTF nuclear installations and transported to the National RAW Repository of JAVYS, a. s. in Mochovce. In 2023, 310 and 94 fibre-concrete containers with low-level RAW were conditioned in this way at the RAW TCT nuclear installation and LRW FTF, respectively.

## Overview of the amount of treated and conditioned RAW in 2023

Nuclear installation	RAW type (units)	Quantities treated
RAW TCT	Combustible solid RAW (t)	299.6
	Combustible liquid RAW (m <sup>3</sup> )	5.6
	Compactible RAW (t)	657.6
	Metallic RAW (t)	394.1
	Liquid RAW (m <sup>3</sup> )	319.6
	Used air-conditioning filters (t)	15.0
LRW FTF	Liquid RAW (m <sup>3</sup> )	99.5
	Solid RAW (m <sup>3</sup> )	115.7

## RAW transportation

During the year 2023, 1043 shipments of radioactive material (RM) in certified shipping packages were made: 200 l Meva drum, 20' ISO container, shipping containers PKIII/drums, PK/SK, PK/SK 2, FCC and PK90.

## RAW disposal

The National RAW Repository in Mochovce is a nuclear installation for the final disposal of conditioned low-level radioactive waste (LLW) and very low-level radioactive waste (VLLW) from the operation and decommissioning of nuclear installations, institutional RAW and RMUO in the territory of the SR.

Fibre-concrete containers (FCCs) filled with conditioned low-activity RAW after maturation and subsequent transport from the RAW TCT and LRW FTF nuclear installations are finally placed in the storage boxes of the operated double-rows of the repository. During 2023, 392 fibre-concrete containers with low-activity RAW were placed in the second and third double-rows of the storage boxes.

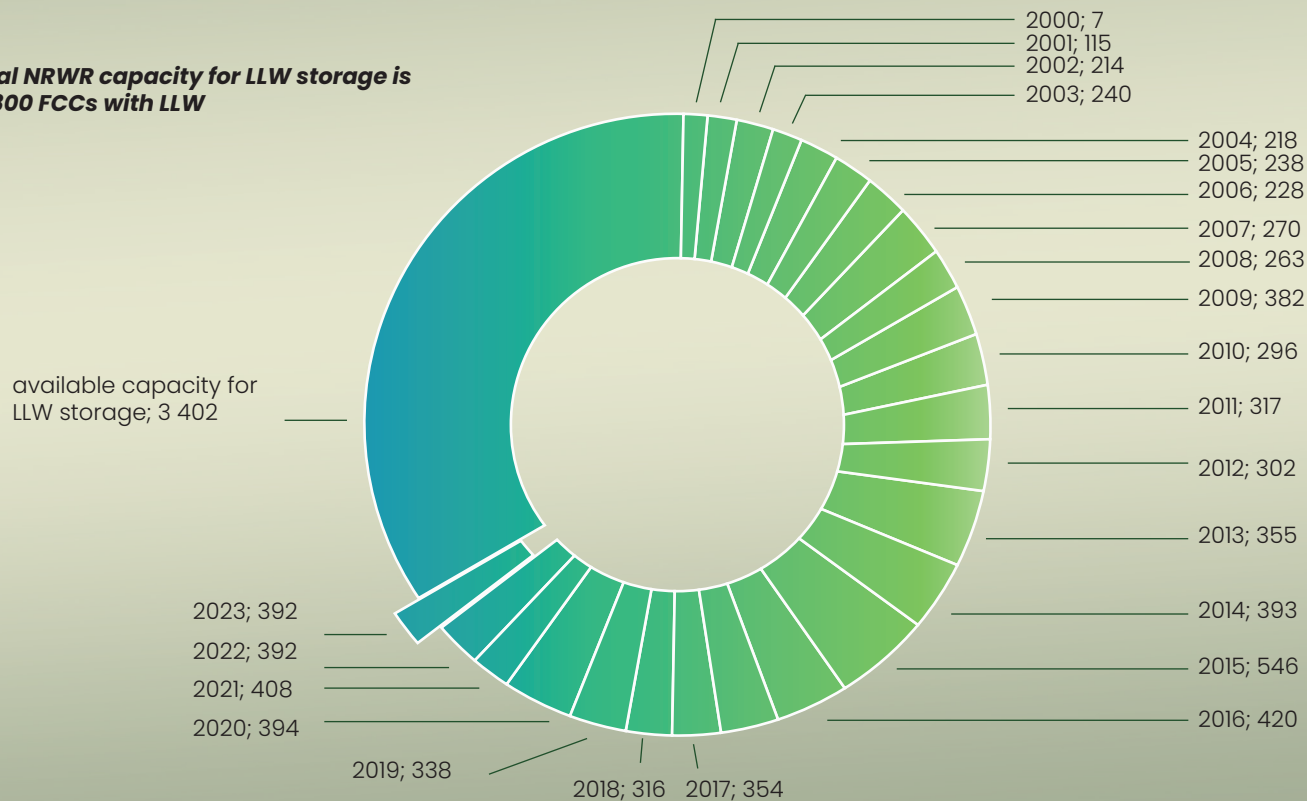
## Overview of disposal of FCCs with LLW and VLLW in the NRWR in 2023

Disposal of FCCs with LLW in the NRWR (pcs)		Total number of disposed FCCs with LLW in the NRWR (pcs)	Total amount of disposed VLLW in the NRWR (m <sup>3</sup> )
RAWTCT	LRW FTF		
306	86	392	3224.332



## Overview of the filling of the storage capacity of the NRWR by disposing FCCs with conditioned LLW as of 31 December 2023

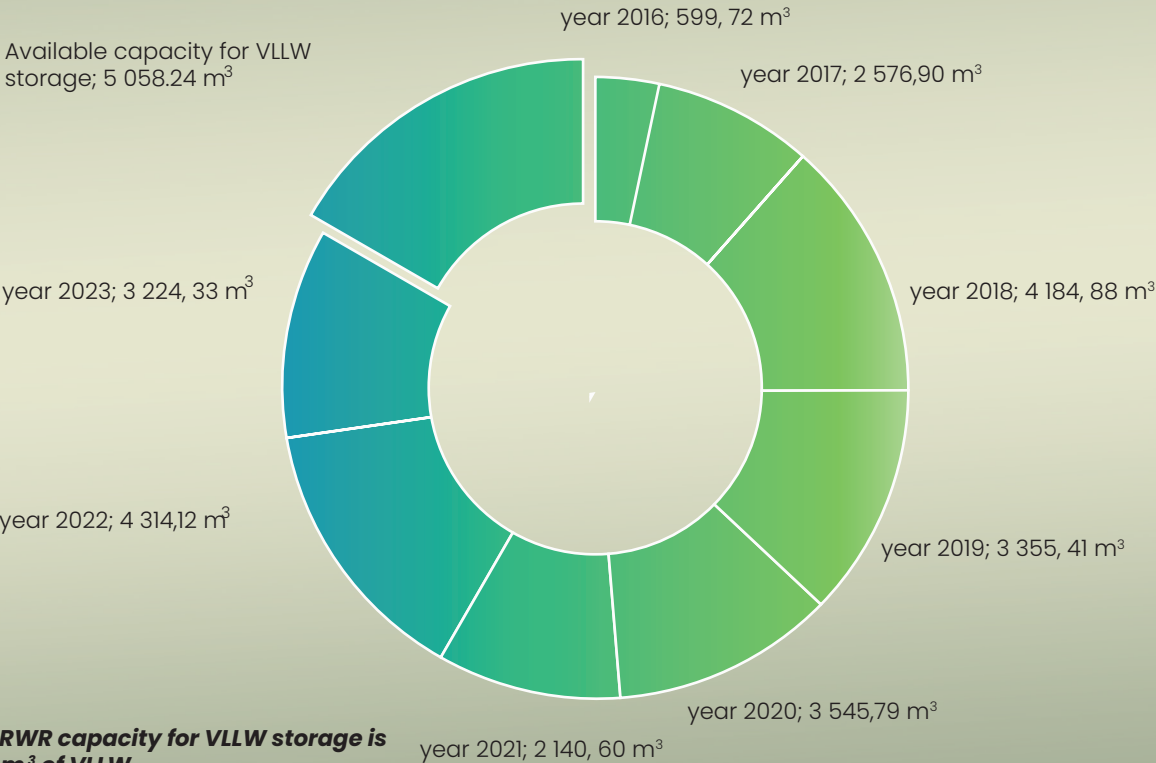
**Total NRWR capacity for LLW storage is  
10,800 FCCs with LLW**





Overview of the filling of the storage capacity of the NRWR by disposing VLLW as of 31 December 2023

Available capacity for VLLW storage; 5 058.24 m<sup>3</sup>



**Total NRWR capacity for VLLW storage is 29,000 m<sup>3</sup> of VLLW**

## IRAW and RMUO management

JAVYS, a. s., is an authorised organisation for the management of radioactive sources and radioactive waste of unknown origin, unused radioactive sources and radioactive materials. In 2023, nine captures of sources of ionising radiation of unknown origin were made, representing different forms of ionising radiation sources. In terms of their contamination, in particular the radionuclide  $^{60}\text{Co}$ ,  $^{90}\text{Sr}$ ,  $^{137}\text{Cs}$  a  $^{241}\text{Am}$  was identified. After identification, these radioactive materials were transported for further management at the nuclear installations of JAVYS, a. s., or for storage to the IRAW and CRM Management Facility at the Mochovce site.

In 2023 JAVYS, a. s., following the agreement of the ME SR and the MH SR, within the framework of the continuation of removal of historical environmental burdens, in terms of radiation protection of the population of the Slovak Republic, carried out the collection of IRAW from state and private medical facilities and state institutions FCHPT STU Bratislava, PHA Bratislava and AGEL Komárno, with the subsequent transport and other activities of IRAW management. The total IRAW taken over in 2023 for further management at the nuclear installations of JAVYS, a. s., or to the IRAW and CRM Management Facility at the Mochovce site consisted mainly of used sealed sources, or various types of reference standards with a total mass of 1297.32 kg, while 100.7 kg of this quantity of IRAW were nuclear materials, which were stored in special, dedicated for this purpose areas of the NI ISFS at the Jaslovské Bohunice site.



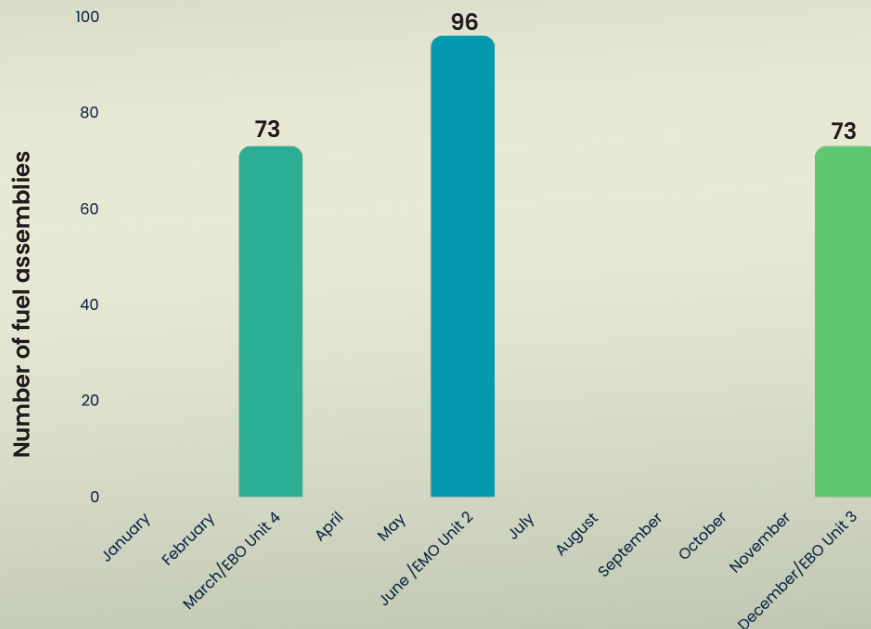
# **SPENT FUEL MANAGEMENT**

**08**

After reaching the specified parameters, spent fuel (SF) produced in the reactor units of nuclear power plants in the SR is transported and stored for a long period of time in the nuclear installation Interim Spent Fuel Storage Facility (ISFS) of JAVYS, a. s., in Jaslovské Bohunice.

In 2023, a total of 242 spent fuel assemblies were transported from the NI V2 and NI EMO to the ISFS. An overview of the number of spent fuel assemblies transported during 2023 is shown in the following chart.

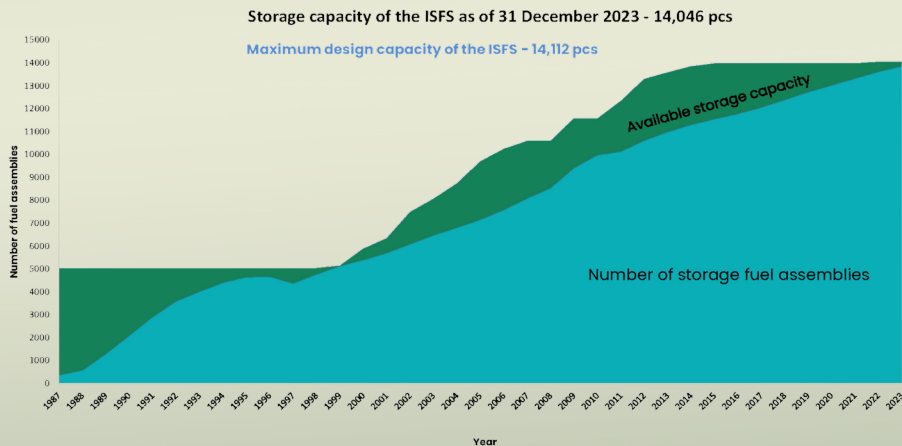
### Number of spent fuel assemblies transported in each month of 2023



In 2023, spent fuel was also stored in the storage pools of the ISFS in KZ-48 and T-13 type storage casks. As of 31 December 2023, a total of 13,840 pieces of spent fuel assemblies were stored in the ISFS, of which 5,143 pieces from V1 NPP production, 5,961 pieces from V2 NPP production and 2,736 pieces from EMO 1,2 production, which represents 98.07 % of its maximum design storage capacity.

In connection with the provision of sufficient storage capacity for SF in the coming period, the investment project "Completion of SF storage capacity" is being implemented at the Jaslovské Bohunice site. In 2023, non-active tests of the delivered equipment and systems were carried out and after their successful completion and evaluation, an application was submitted to the Nuclear Regulatory Authority of the Slovak Republic (NRA SR) for a permit to put the new SF storage capacities into active operation. The necessary approvals from the supervisory authorities for the operation of these storage capacities for 10,115 pieces of SF are expected to be obtained in early 2024. Overview of continuous filling of the ISFS with spent fuel as of 31 December 2023 is shown in the following chart.

### Overview of continuous filling of the ISFS with spent fuel as of 31 December 2023



**SAFETY**

**09**



## Nuclear safety

Compliance with nuclear safety requirements is a priority at JAVYS, a. s., it is declared in the policy and objectives, which are among the top documents of the Company's integrated management system.

### The safety policy of JAVYS, a. s., is linked to the tasks that the Company provides:

- the safe, reliable and efficient operation of nuclear installations,
- the reliable and safe decommissioning of the A1 and V1 NPPs, with a view to releasing the site for industrial use,
- reliable and safe treatment, conditioning, storage and disposal of radioactive waste from NPPs, including institutional RAW and RMUO,
- reliable and safe management of spent fuel from nuclear power plants.

The requirements of the legislation of the Slovak Republic and the supervisory authorities for nuclear safety were met for all nuclear installations in operation and under decommissioning at the Jaslovské Bohunice and Mochovce sites. During 2023, nuclear installations were operated in accordance with valid and up-to-date safety documentation approved by the supervisory authorities of the Slovak Republic, without violation of limits and conditions for their safe operation or decommissioning.

At quarterly intervals, safety assessment of the operation of nuclear installations of JAVYS, a. s., was carried out by means of operational safety indicators. The achieved evaluations confirmed the professional work of the staff and the high reliability of the technological equipment.

The personal involvement of employees in safety issues was supported during 2023, for example, by holding a Safety Culture Seminar for employees of JAVYS, a. s. In order to maintain a high level of safety and reliability of the operation of the NIs at JAVYS, a. s., an action plan of activities, the so-called Safety Culture Action Plan, was set for 2023 as well, which contained twenty tasks. The aim of these tasks was to continuously maintain staff awareness of personal responsibility and motivate them to behave safely. All set tasks were completed within the deadlines specified.

### Inspectors of the NRA SR carried out a total of 50 inspections at JAVYS, a. s., during 2023:

- |  |                                  |
|--|----------------------------------|
| ■ 24 inspections common for JAVYS, a. s. | ■ 2 inspections at the NI V1 NPP |
| ■ 1 inspection at the NI A1 NPP          | ■ 1 inspection at the NI RAW TCT |
| ■ 5 inspections at the NI ISFS           | ■ 1 inspection at the NI LRW FTF |
| ■ 3 inspections at the NI NRWR           |                                  |

The inspections were aimed, for example, at checking compliance with nuclear safety conditions and supervision requirements during decommissioning of the NI VI NPP and AI NPP, RAW management in the NI RAW TCT, NI IRAWs and NI LRW FTF, storage of spent fuel in the NI ISFS, disposal of RAW in the NI NRWR and transport of RAW and nuclear materials. An inspection focusing on the culture of nuclear physical security and cybersecurity was also carried out. The inspectors examined the area of emergency preparedness, focusing on the inspection of equipment and means for emergency preparedness, the on-site emergency plan training system and the staff training system. Within the framework of the modification of the completed construction "Completion of SF storage capacity", an inspection to check the fulfilment of selected conditions of the decisions of the NRA SR was carried out.

IAEA inspectors, in cooperation with inspectors from EURATOM and the NRA SR, carried out 13 inspections in 2023 to inspect nuclear materials and to check the decommissioning status of the AI NPP and VI NPP. With regard to the planned commissioning of the new spent fuel (SF) storage capacities – the so-called dry part of the ISFS, it was necessary to expand and modernise the IAEA and EURATOM surveillance system at the NI ISFS. For this purpose, JAVYS, a. s., provided the international supervisory organisations with full cooperation and support in the planning, preparation and implementation of the project for the installation of the surveillance equipment. Following the completion of the preparatory work by the contractor of the project "Completion of SF storage capacity" – VUJE, a. s., the installation of the equipment by IAEA and Euratom technicians was carried out in early September 2023 and was successfully completed, which was subsequently confirmed and appreciated by the present inspectors of the international supervisors.

JAVYS, a. s., has thus fulfilled its obligation under international legislation binding on the Slovak Republic in the field of guarantees for nuclear materials.

**The Nuclear Regulatory Authority of the SR issued a total of 87 decisions for JAVYS, a. s., in 2023:**

- 31 decisions common for JAVYS, a. s.
- 12 decisions for the NI VI NPP
- 12 decisions for the NI AI NPP
- 8 decisions for the NI RAW TCT
- 7 decisions for the NI ISFS
- 4 decisions for the NI LRW FTF
- 8 decisions for the NI NRWR
- 5 decisions for the NI IRAWs

### The most important decisions issued by the NRA SR in 2023:

Decision No.	Subject of the decision
<b>11/2023</b>	The NRA SR approves PK II/KALY type transport equipment.
<b>18/2023</b>	The NRA SR issues consent to the implementation of changes in the operating regulation 12-TPP-804 "Technological Regulation for the Mochovce NRWR - VLLW Repository, Edition No. 4, Revision No. 2".
<b>19/2023</b>	The NRA SR issues consent to the implementation of changes pursuant to Article 2(w) of the Atomic Act in the operating regulation 12-TPP-801 "Technological Regulation for the Mochovce NRWR, Edition No. 6".
<b>28/2023</b>	The NRA SR issues permits for road transport of RM in the PK/SK2 type transport equipment.
<b>33/2023</b>	The NRA SR issues consent to the implementation of a change affecting nuclear safety during the decommissioning of the V1 NPP in the documentation B6.5-D13.1/SK Plan for the management and transport of radioactive waste from Stage 2 of V1 NPP decommissioning, Revision No. 8 and B6.5-D13.2/SK Plan for the management of other and hazardous waste from Stage 2 of V1 NPP decommissioning, Revision No. 2, assessed by the Authority.
<b>44/2023</b>	The NRA SR permits the project: "Reconstruction and expansion of the HL and adjacent rooms in SO 47"
<b>45/2023</b>	The NRA SR permits a modification of the completed construction: "Optimisation of the treatment capacity of the NI RAW TCT - HP compacting"

Decision No.	Subject of the decision
<b>71/2023</b>	The NRA SR issues consent to the implementation of changes in the operating regulation 9-TPP-807 "Operating regulation for chrompik vitrification", Edition No. 7".
<b>87/2023</b>	The NRA SR issues a permit for road transport of RM in the TE type: fibre-concrete container FRC AS IP 2 (hereinafter referred to as the "FCC") for the conditions of A-type shipment.
<b>124/2023</b>	The NRA SR issues consent to the implementation of a change affecting nuclear safety during the decommissioning of the nuclear installation VI NPP in the scope of commissioning and use of the mobile evaporator, project D4.4C "Dismantling of systems in the controlled area of the VI NPP" - Part 2
<b>172/2023</b>	The NRA SR issues consent to the implementation of a change affecting nuclear safety during the decommissioning of the nuclear installation A1 NPP in the scope of commissioning and use of the reconstructed system of carbon sewerage in structure 30.
<b>199/2023</b>	The NRA SR issues a permit for using C7-A4 Metallic RAW remelting facility.
<b>242/2023</b>	The NRA SR permits the use of the construction "Completion of SF storage capacity, relaying of utility networks - Stage 2, SO840M/A - Compressor Station".
<b>284/2023</b>	The NRA SR issues consent to the implementation of a change affecting nuclear safety during the decommissioning of the nuclear installation A1 NPP in the scope of commissioning and use of the HVAC systems P-12a and O-12a.
<b>410/2023</b>	The NRA SR approves PK III/SUDY type transport equipment, serial numbers 897 022, 802 004, 802 005 for the transport of radioactive materials for the conditions of B(U) type shipment.

In 2023, five operational events were registered at the NIs of JAVYS, a. s. classified as failures, which were subject to reporting to the supervisory authorities in accordance with the Atomic Act. According to the International Nuclear and Radiological Event Scale (INES), all events were classified as events of no safety significance (outside the INES scale). In 2023, four events without consequences were reported and three events from other nuclear installations were analysed by the nuclear safety committee.

## **Radiation protection**

At JAVYS, a. s., radiation protection is provided by the Radiation Protection Department. The Radiation Protection Department covers radiation protection in the operation of the Bohunice RAW Treatment Centre, the Interim Spent Fuel Storage Facility, the Integral Radioactive Waste Storage Facility, the Liquid RAW Final Treatment Facility, the National RAW Repository in Mochovce, as well as in the decommissioning of A1 NPP and V1 NPP. Radiation protection is ensured in all activities performed at all nuclear installations of JAVYS, a. s.

The legislative framework for ensuring radiation protection is primarily constituted by Act No. 87/2018 Coll. on radiation protection, decrees of the Ministry of Health of the Slovak Republic, decisions of the Public Health Authority of the Slovak Republic (PHA SR), internal regulations of JAVYS, a. s., and documents of the International Atomic Energy Agency in Vienna (e.g. GSR Part 3). However, these are only recommendations and are not binding on individual countries.

The main activities of the Radiation Protection Department include systematic monitoring of the radiation characteristics of the working environment, operational and official monitoring of worker doses, checking compliance with radiation protection rules and ensuring optimisation of doses and the ALARA principle. The most important indicator of these outputs is the workers' radiation exposure parameter, the maximum individual effective dose. This represents the value of the whole-body exposure of the worker with the highest radiation exposure in a given year. Act No. 87/2018 Coll. on radiation protection sets the limit for this parameter at 20 mSv/year. However, the maximum internal limit of JAVYS is set at 13 mSv/year. During the year 2023, the mentioned value of 13 mSv/year was not exceeded by any employee of JAVYS, a. s., nor by any employee of contractor organisations.



The following table summarises the maximum effective dose values in the individual controlled areas of JAVYS, a. s.

**Maximum individual effective dose E (mSv) in 2023**

JAVYS, a. s	CA-A	% of limit	CA-V	% of limit	CA-U	% of limit	CA-R	% of limit
<b>Employees of JAVYS, a. s.</b>	10.476	52.4	0.907	4.5	2.36	11.8	0	0
<b>Suppliers JAVYS, a. s.</b>	12.092	60.5	6.707	33.5	0	0	0	0

*Explanatory notes:*

CA-A Controlled areas in the structures of the A1 NPP under decommissioning, in the structures with technologies for RAW treatment and spent fuel storage Jaslovské Bohunice

CA-V Controlled area of the Jaslovské Bohunice V1 NPP under decommissioning

CA-U Controlled area of the NRWR, LRW FTF and VLLV Mochovce

CA-R Controlled area of IRAW and CRM Mochovce

Other responsibilities of the Radiation Protection Department include the release of material into the environment, calibration and official verification of dosimetry instrumentation, and the measurement and balancing of released RA substances into the air and hydrosphere. A particularly important area is the assessment of the dose load on the population due to the operation of the NIs of JAVYS, a. s.

The dose load on the population living in the vicinity of the NIs of JAVYS, a. s., is so low that it is practically indistinguishable from the natural background radiation. Therefore, it is determined by a calculation involving the actual RA substances released into the atmosphere and hydrosphere and measured meteorological data during the year. The calculation is carried out by software (ESTE AI), which is approved for this purpose by the PHA SR and updated twice a year with demographic data and the sizes of crop areas and types of crops grown in the area of interest. The results of the calculations are submitted 4 times a year to the PHA SR and presented in quarterly reports, where discharges of radioactive substances from the premises of JAVYS, a. s., Bohunice are analysed.

The values of the maximum individual effective dose for the year 2023 in the inhabited and most exposed area are calculated to be  $0.0246 \mu\text{Sv}$ , which is 0.077% of the PHA SR authorised limit of  $32 \mu\text{Sv}$ . It can be concluded that the impact of the operation of the JAVYS nuclear installations on the population in 2023 was several times lower than the natural background radiation.

### **Emergency planning and civil protection**

In 2023, all requirements of the Slovak legislation were met in the area of emergency planning and civil protection. JAVYS, a. s., has a functional emergency response organisation in place, capable of dealing with emergencies at nuclear installations and in the transport of RM. Throughout the year, emergency drills and personnel exercises were carried out regularly at all nuclear installations and during RM transports.

The state of emergency preparedness of JAVYS, a. s., at the Jaslovské Bohunice site was verified by the all-area emergency exercise, which was aimed at dealing with emergencies at nuclear installations. Within the framework of the all-area emergency exercise, all employees of JAVYS, a. s., as well as all persons present during the exercise on the territory of the Company's nuclear installations in Jaslovské Bohunice, including employees of contractor organisations, were involved in the exercise. The exercise was attended by 611 persons, 284 of whom were employees of JAVYS, a. s. In percentage terms, 71 % of the total number of employees of JAVYS, a. s., with place of work in Bohunice as of 20 September 2023,

took part in the exercise. During emergency exercises and drills of expert groups, the emergency response organisation proved its functionality.

To ensure the area of emergency planning and civil protection, JAVYS, a. s. has prepared the documentation in accordance with legislative requirements, which was continuously updated during 2023 in the light of organisational changes in JAVYS, a. s., and changes in legislation:

■	8-PLN-001	- Plan of health measures of JAVYS, a. s.,
■	8-PLN-002	- On-site emergency plan for the NI JAVYS, a. s. in Bohunice,
■	8-PLN-016	- Shelter and evacuation plan in JAVYS, a. s.,
■	8-PLN-017	- Emergency transport rules - railway transport of RM,
■	8-PLN-018	- Emergency transport rules - road transport of RM,
■	11-PLN-001	- On-site emergency plan for the NI LRW FTF,
■	12-PLN-001	- On-site emergency plan for the NI NRWR,
■	16-PLN-001	- On-site emergency plan for the NI IRAWS.

**For the nuclear installations of JAVYS, a. s., the following emergency planning zone sizes are currently approved by the Nuclear Regulatory Authority of the Slovak Republic:**

- common emergency planning zone for the NI VI NPP, AI NPP, RAW TCT and ISFS at the Bohunice site demarcated by the barrier of the guarded area of nuclear installations of JAVYS, a. s. at the Bohunice site, approved by Decision of the NRA SR No. 719/2014 of 26 September 2014,
- emergency planning zone for the NI NRWR in Mochovce defined as the area demarcated by the boundary of the nuclear installation, which is defined by the barrier of the guarded area, i.e. the fence of the NRWR at the Mochovce site, approved by Decision of the NRA SR No. 66/2017 of 20 February 2017,
- emergency planning zone for the NI LRW FTF at the Mochovce site defined as the area demarcated by the boundary of the premises of nuclear installations of Slovenské elektrárne, a. s., Mochovce NPP, which is defined by the barrier of the guarded area of this nuclear installation, approved by Decision of the NRA SR No. 5/2007 of 8 January 2007,
- emergency planning zone for the NI IRAWS demarcated by the barrier of the guarded area of nuclear installations of JAVYS, a. s., at the Bohunice site, approved by Decision of the NRA SR No. 381/2017, which became final and enforceable on 9 October 2017.

The analyses, on the basis of which the emergency planning zones were determined, have shown that the operation or decommissioning of the nuclear installations of JAVYS, a. s., at the sites of Jaslovské Bohunice and Mochovce has a negligible impact on the population and the environment in the vicinity of these nuclear installations.

### **OHS and fire protection**

The Company's activities in the field of occupational health and safety are mainly focused on elimination of risks of occupational injuries and monitoring of the working environment at the workplaces of JAVYS, a. s., employees as well as employees of contractor organisations.

The certification company carried out the 2nd periodic audit pursuant to the ISO 45001:2018 standard for the occupational health and safety management system in JAVYS, a. s. in 2023. The maintenance of the certificate confirms that JAVYS, a. s., is a safe organisation, which places emphasis on the quality of its processes and the fulfilment of the requirements for the protection of the environment and the health of employees during the operation and decommissioning of nuclear installations.

During this 2nd periodic audit, the certification company identified a number of significant positives, such as a stable team with a high level of performance and professionalism, a low level of internal and contractor injury rates, the inclusion of OHS risks in the organisation's integrated risk register and the long-standing excellent performance in OHS, nuclear and radiation safety.

In 2023, there were no registered occupational injuries at JAVYS, a. s.; there were three recorded occupational injuries.

There were no occupational diseases and no fires recorded during 2023. Four injuries to contractor employees were recorded in the 2023 evaluation period, which are subject to investigation, recording or registration of occupational injuries by the responsible contractor organisation.

In the monitored period, KR HaZZ Trnava carried out a comprehensive fire inspection. The purpose of the comprehensive fire inspection was to check the overall state of organisational and technical provision of fire protection in the inspected entity.



Prevention of injuries and occupational diseases in hazardous workplaces was ensured by control activities and the allocation of appropriate personal protective equipment in accordance with the established operating rules and risk assessments.

Indicators in the field of OHS and fire protection are monitored daily and evaluated in reports, which are submitted at semi-annual intervals to the senior management meetings of JAVYS, a. s., where measures for the next periods are approved based on the results and development trends.





# **ENVIRONMENTAL PROTECTION**

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In JAVYS, a. s., environmental protection is included among the supporting processes within the integrated management system in the “Safety” process. In the implementation of activities, emphasis is placed on respecting the principle of prevention and minimisation of environmental impacts that may arise during the work carried out by the Company’s own employees and contractors. A responsible approach to the environment is also ensured in the form of continuous monitoring of all legal requirements in individual areas of environmental protection (water, air, waste, nature and landscape protection and others) and their implementation in the Company’s internal documentation. JAVYS, a. s., has fulfilled or is continuously fulfilling the conditions of the decisions issued by the central government authorities in individual areas of environmental protection.

The activities of contractors implementing investment and decommissioning projects at the nuclear power plants A1 and V1 are governed by contractual relationships that include strict environmental protection requirements specified in the Safety and Technical Conditions of JAVYS, a. s. Significant environmental aspects are determined and managed for identified environmental impacts. The commitment of JAVYS, a. s., to comply with and apply the requirements of the ISO 14001:2015 standard “Environmental Management Systems” within the integrated management system is verified by the auditing company DNV. In 2023, a periodic audit was carried out, which resulted in a certificate confirming the functionality and effectiveness of the system and also the demonstration of appropriate environmental behaviour of JAVYS, a. s., in the performance of the activities and services in accordance with the environmental policy and objectives. The audits and inspections carried out by the supervisory authorities did not reveal any non-compliance in any of the areas of environmental protection. Observations and opportunities for improvement in certain areas identified by internal audits provide the impetus for continuous improvement and assurance of IMS processes.



## Water management

Drinking water consumption in 2023 was higher by 940 m<sup>3</sup> (1.6%) compared to the previous year, total consumption (Jaslovské Bohunice, Mochovce and Bratislava sites) was 61,515 m<sup>3</sup>. The year-on-year increase in drinking water consumption was due to a higher number of employees of contractor organisations working on individual projects related to the execution of AI NPP and VI NPP decommissioning and investment projects. Cooling water consumption in 2023 was 176,098 m<sup>3</sup>, which means a decrease of 37.30 % compared to 2022. Total costs of water management in 2023 were by EUR 14,934.96 lower (a decrease by 10.3%).

In 2023, 440,393 m<sup>3</sup> of wastewater was discharged into the Váh water body, which is an increase of 1.68 % compared to the previous year. Quality indicators of the discharged wastewater into the Váh water body verified by analyses in an accredited laboratory were below the limit values set in the permit, except for one sample in the indicator “soluble substances”. One overrun of up to 1.2 times the limit value set in the permit is permissible according to Government Order No. 269/2010 Coll., laying down requirements for achieving good status of water, as amended, and therefore it is possible to assess the wastewater discharge for the year 2023 that it was in compliance with the conditions of the wastewater discharge permit. According to the quantity and quality of the discharged pollution, JAVYS, a. s., did not incur any obligation to pay wastewater discharge charges in 2023.

No wastewater was discharged into the Dudváh water body, only water from surface runoff. Only water from precipitation accumulated in the retention reservoir is discharged from the NI NRWR in Mochovce into the surface waters – Telinský potok (Telinský brook).

## Air protection

JAVYS, a. s., operated air pollution sources in 2023 in two categories – five medium sources (reserve boiler room, diesel generators) and one small source (production of fibre-concrete mixture). Due to the nature of the operation of the sources in emergency mode (except for the small source), the total emissions emitted from all medium sources are very low, and there is no obligation to pay air pollution charges. The municipality of Jaslovské Bohunice has set a fee of EUR 10.00 per year for the operation of the small source. In 2023, a comparable amount of pollutants was emitted into the air as in 2022: particulate matter – 40.564 kg,  $\text{SO}_2$  – 0.114 kg,  $\text{NO}_x$  – 25.731 kg, CO – 5.411 kg, Corg – 0.713 kg,  $\text{CO}_2$  – 20 t. During the operation of the RAW incineration plants, which are not categorised as sources of air pollution, the average daily values of the concentration of the individual pollutants measured by the automated monitoring systems were respected.



## Waste management

The amount of waste produced from the operation of nuclear installations and the decommissioning of the A1 NPP and V1 NPP depends on the scope of activities carried out and on the implementation of investment projects, service and maintenance work. The disposal and recovery of waste arising from the operation of nuclear installations, maintenance and support activities is the responsibility of JAVYS, a. s. In the case of contractor activities, including the implementation of BIDSF projects, the disposal and recovery of such waste is arranged by contract with the relevant contractor.

The total amount of non-active waste generated in 2023 within both BIDSF and non-BIDSF projects was 2,009.305 t, which represented a reduction of 145.81 t compared to 2022 (6.77%).

The volumes of waste produced were in the following categories:

- other waste in the amount of 169.725 t outside BIDSF projects and 198.84 t within BIDSF projects,
- hazardous waste in the amount of 9.688 t outside BIDSF projects and 3.68 t within BIDSF projects,
- mixed municipal waste in the amount of 35.56 t,
- recoverable metallic waste in the amount of 1,579.12 t.

The costs spent on waste disposal and recovery outside BIDSF projects amounted to EUR 53,898.53 in 2023. Compared to 2022, they slightly increased by EUR 6,253.31 (13.12%).

Recoverable metallic materials were produced, handed over for material recovery (revenue of EUR 1.039 million) and classified as waste in the following categorisation:

Recoverable waste	Weight (t)
Aluminium	4.62
Mixed metals	1,574.50
<b>Total weight (t)</b>	<b>1,579.12</b>

**Waste management was carried out in 2023 in accordance with the legal requirements of the Slovak Republic and the Company's internal regulations.**



## Environmental impact assessment

The requirements of Act of the National Council of the Slovak Republic No. 24/2006 Coll. on environmental impact assessment and on the amendment to certain acts as amended, implemented into Directive BZ/OŽ/SM-04 "Environmental impact assessment (EIA)", are applied in the area of environmental impact assessment.

In 2023, the mandatory impact assessment process was under way for the proposed activity "Stage V of AI NPP decommissioning and subsequent release of the AI NPP site from administrative control". On 17 March 2023, a draft scope of the assessment was sent to JAVYS, a. s., on the basis of which the assessment report was prepared. The assessment report was commented within JAVYS, a. s., the compiler of the report incorporated the comments and the report is ready for submission to the MEnv SR.

JAVYS, a. s., is also monitoring activities planned to be carried out by other proponents in the affected area and is a party to other activities assessed under Act No. 24/2006 Coll.

The implementation and operation of activities that have been assessed according to the Environmental Impact Assessment Act is possible only on the condition of demonstrating compliance of the implementation of the activity with the final opinion from the assessment process or with the decision issued in the screening procedure. Compliance is demonstrated by preparing a written evaluation of the conditions of the final opinion of the MEnv SR or the conditions of the decision issued in the screening procedure and attaching it to the application for a licence for the activity.





During 2023, a written evaluation of compliance with the conditions of the final opinions on the licensing procedures was prepared:

**1. Issuance of final permits for activities:**

- *Completion of spent fuel storage capacity at the Jaslovské Bohunice site, relaying of utility networks – Stage 2, SO840M/A – Compressor Station*
- *Completion of spent fuel storage capacity at the Jaslovské Bohunice site*
- *BIDSF C7-A4 “Metallic radioactive waste remelting facility at the Jaslovské Bohunice site”*
- *Extension to the SO 30 structure for handling of the large-scale materials from A1 NPP de-commissioning*

**2. Issuance of a permit for the removal of building:**

- *BIDSF D4.2 “Dismantling of the contaminated part of concrete from the rooms R003/1,2 A R048/1,2”*

In all binding opinions of the MEnv SR issued for individual proceedings, compliance of the licensing procedures with Act No. 24/2006 Coll. and the decisions issued pursuant to this Act was confirmed. Also, the results of the post-project analysis carried out for all assessed activities demonstrate their implementation in accordance with the Environmental Impact Assessment Act and the decisions issued under this Act.

# **INTERNATIONAL ACTIVITIES**

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After 2021, the conditions and possibilities for JAVYS, a. s., to implement commercial projects in the field of management of foreign radioactive waste (RAW) on treatment technologies have fundamentally changed, due to the adoption of Act No. 388/2021 Coll., which prohibited the import of foreign RAW for the purpose of its treatment by incineration. Although JAVYS, a. s. could complete the existing contracts, it had to reconsider the scope of the commercial activities offered. As a result, increased activity was undertaken to identify suitable commercial opportunities in the form of projects involving consultancy activities in which the Company's long-standing experience can be utilised.

In 2023, activities were carried out in accordance with seven signed contracts. JAVYS, a. s., for ČEZ, a. s., continued to treat RAW from the Dukovany NPP and Temelín NPP by high-pressure compaction. During 2023, the remaining amount of saturated sorbents and sludge from the Italian Caorso NPP was treated, with the transport of the last final products back to Italy being carried out on 21 December 2023. Thus, the technical activities of the project have been successfully completed, all that remains is to finalise the administrative and organisational details of the project, which we are implementing in consortium with the Italian company Ansaldo New Clear. For NUCLECO, S.p.A., the ash and non-combustible RAW was transported back and the relevant radiological report on the treatment of the RAW was prepared. The contract was subsequently terminated.

For DMS, spol. s r.o., JAVYS, a. s., continued to provide support to the technical and emergency group in the import of fresh nuclear fuel to the Slovak Republic for the NPPs in operation.

In 2023, work also continued on the documentation for obtaining a licence for the construction of a RAW storage facility in Cerkezovac, Croatia; the focus of the work has shifted to safety assessment and the development of relevant safety analyses. JAVYS, a. s., is involved in the implementation of this project for the Croatian Nuclear Fund together with two partners from Croatia (Ekoner and Enconet).

In an effort to penetrate even more distant markets, JAVYS, a. s., in cooperation with WAI, s. r. o., carried out trainings for the staff of the South African company NECSA in the field of cost valuation for nuclear decommissioning and RAW management. The training was part of a project for the delivery of a software solution in this area for which WAI, s.r.o. was responsible.

As part of the search for new opportunities to apply the acquired experience, JAVYS, a. s., participated as a partner in the implementation of the HARPERS research project funded by the EC through the Euratom programme. The objective of the HARPERS project is to map the added value from a higher degree of

harmonisation of legislation in the field of RAW management, to identify barriers and challenges to the implementation of a common regulatory framework in the EU and to provide solutions to overcome these barriers. To this end, key themes for more detailed analysis were identified based on stakeholder feedback in 2023.

Cumulative financial volume for contracted services of JAVYS, a. s., as at 31 December 2023, in implemented projects amounts to EUR 41.1 million, with the total value of projects at the level of EUR 58.6 million.

In addition to the benefit in the form of revenues, the implemented projects also bring references for the future and opportunities for the use of the acquired experience and further professional growth of JAVYS, a. s., experts participating in their preparation and implementation. Last but not least, they also provide an opportunity for the Company to develop and establish itself on the market in an important segment of the nuclear industry.

# **ECONOMIC OUTTURN**

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## Report on business activities and assets

Jadrová a vyrad'ovacia spoločnosť, a. s., is a joint-stock company wholly owned by the state, which exercises the rights of a shareholder through the Ministry of Economy of the SR. The mission of JAVYS, a. s., is to carry out activities in accordance with the approved National Policy and National Programme for the Management of SF and RAW, namely to safely, reliably and economically efficiently decommission the nuclear power plants AI and VI, to provide nuclear services in the areas of spent fuel and radioactive waste management by optimally utilising the existing treatment capacities of the RAW TCT, and to provide related services. JAVYS, a. s., provides additional services to third parties resulting from concluded service and lease agreements.

JAVYS, a. s. has been classified in the general government sector since July 2016 and its business activities are also affected by the relevant legislation in force in this area.

As of 31 December 2023, JAVYS, a. s., achieved a pre-tax profit of EUR 7,622,652 and an after-tax profit of EUR 4,296,903. The operating net profit was reported at EUR 6,378,932.

The main activities of JAVYS, a. s., in 2023 were covered by the funds provided by the NNF, BIDSF, SIEA and by revenues and income obtained from commercial activities.

Under the contract with the NNF, the maximum and limit amount of funding for individual applications for 2023 was set at EUR 111,783,117.

The disbursement of NNF non-investment funds in 2023 was EUR 74,161,283 (from the NNF budget for 2023: EUR 72,581,662 and from the NNF budget for 2024: EUR 1,579,621). At the same time, costs of EUR 1,254,735 were settled with the NNF in 2023 for 2022 performance, spent within the 2022 funding applications.

The drawdown of investment funds under the 2023 contract with the NNF was EUR 26,433,705.

As part of the drawdown of funds from the BIDSF and SIEA for projects related to VI NPP decommissioning, the Company received funds in the total amount of EUR 20,737,041.18 in 2023, of which EUR 12,796,145.94 for the operational part and EUR 60,689.33 for the investment part and the funds amounting to EUR 7,893,031.46 were received for the implementation of the decommissioning programme using human



resources available in the VI NPP of the BIDSF D0 project "Implementation of the decommissioning programme using the human resources available at the VI NPP", of which EUR 7,789,103.94 for the operational part and EUR 103,927.52 for the investment part.

The Company's revenues and income from commercial activities represent revenues and income from the commercial management of RAW and SF, revenues from concluded service and lease contracts and revenues from the sale of recoverable unusable assets from A1 NPP and VI NPP decommissioning. For the year 2023, the Company reported total revenues and income from own performance in the amount of EUR 35,359,601, of which direct revenues for transportation, storage and treatment of RAW and for SF management in the SR for the VI NPP, V2 NPP and EMO 1,2 NPP and the treatment of RAW from RAW storage called "Mogilnik" amounted to EUR 19,025,125. Maintenance services amounted to EUR 362,459, income in the amount of EUR 3,168,558 was recognised from the activation of materials, DHM and the activation of services, revenues from the sale of DrHM amounted to EUR 56,420 and revenues arising from lease and other contracts and other performances of JAVYS, a. s. were recognised in the amount of EUR 12,747,039. Invoicing from the implementation of international projects accounts for a substantial part of the other outputs.

The Company's cost of production consumption in 2023 was recognised in the amount of EUR 73,437,413. Actual personnel costs were reported at EUR 37,296,768, accounting depreciation of fixed assets and adjustments for fixed assets amounted to EUR 20,759,261 (total depreciation of DNM and DHM amounted to EUR 19,901,391 and adjustments for fixed assets amounted to EUR 857,870).

As of 31 December 2023, the Company recorded total assets of EUR 2,103,367,380. Of this, intangible fixed assets amounted to EUR 1,608,133 and tangible fixed assets of the Company amounted to EUR 184,723,789. Fixed financial assets were recognised in the amount of EUR 102,389,011. These assets are related to the contribution to JESS, which was established in 2009 as a joint venture between JAVYS and ČEZ Bohnice. The value of the financial assets was revalued as of 31 December 2023 on the basis of a reduction of the equity of JESS by EUR 997,342.

The largest item of the Company's liabilities as of 31 December 2023 were provisions for the decommissioning and disposal of the nuclear power plants A1 and VI, provisions for the decommissioning and disposal of non-energy facilities and provisions for future employee benefits (retirement benefits and severance pay under the Collective Bargaining Agreement). As of 31 December 2023, provisions totalling EUR 1,721,970,083 were recognised. Part of the provisions are the provisions for the decommissioning

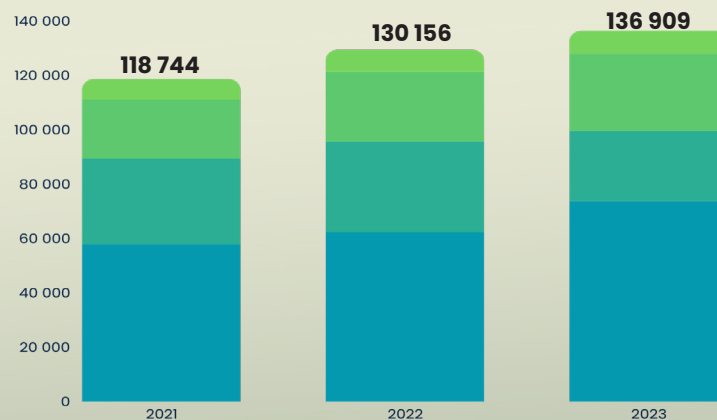
and disposal of the nuclear power plants AI and VI in the amount of EUR 1,344,410,224. This part of the provisions is covered by receivables from the NNF, BIDSF and SIEA. The remaining part of the provisions amounting to EUR 377,559,859 is made up of provisions for decommissioning of non-reactor facilities, provisions for storage of SF, provision for environmental burden, provisions for future employee benefits as well as provisions for uninvoiced deliveries and unused annual leave.

The value of the Company's equity as of 31 December 2023 amounted to EUR 213,169,112, which represents 10.13 % of the Company's total assets.

The achieved profit or loss is presented in the financial statements, which have been audited by an independent auditor and are unqualified.

**Structure of operating revenues and income\* by sources of financial coverage** EUR thous.

	<b>2021</b>	<b>2022</b>	<b>2023</b>
■ NNF funds	57 858	62 924	74 161
■ BIDSF and SIEA funds	31 571	33 355	25 775
■ Commercial nuclear services	21 629	25 729	28 322
■ Other revenues and income	7 687	8 147	8 651
<b>Total:</b>	<b>118 744</b>	<b>130 156</b>	<b>136 909</b>

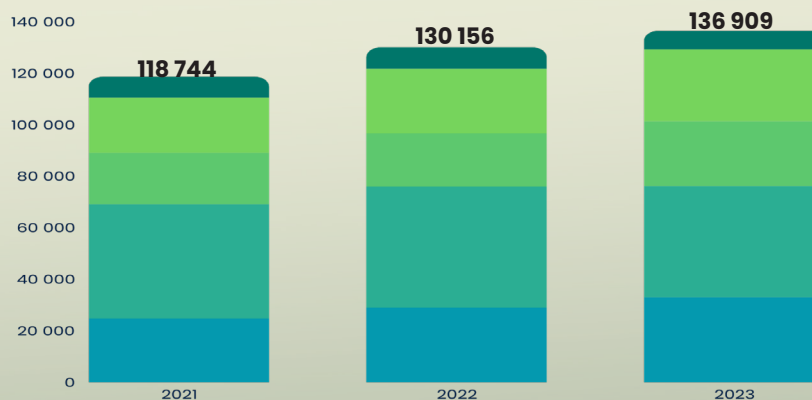


## Structure of operating revenues and income\* by activity

The NNF funds also include funds provided for the reimbursement of costs for the management of RAW from AI NPP and VI NPP decommissioning and the costs for the storage of SF from the VI NPP.

EUR thous.

	2021	2022	2023
■ Funds for AI NPP decommissioning (without RAW management)	24 839	29 062	33 024
■ Funds for VI NPP decommissioning (without RAW and SF management)	44 352	46 997	43 433
■ RAW and SF management	41 303	45 682	53 046
■ Other activities	8 250	8 414	7 406
<b>Spolu:</b>	<b>118 744</b>	<b>130 156</b>	<b>136 909</b>

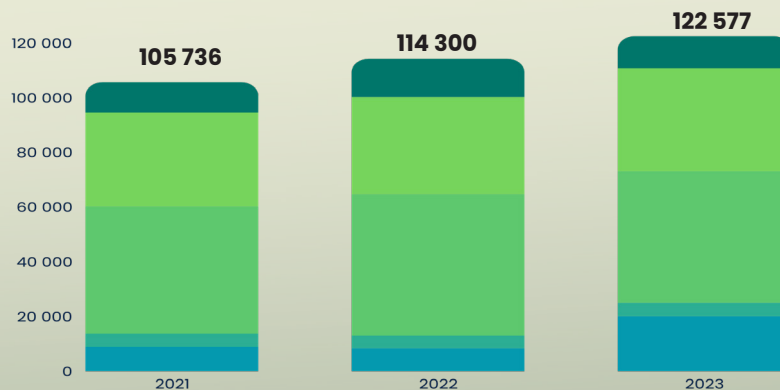


\* Operating revenues and income do not include income from the allocation of NNF and BIDSF grants to fixed assets

## Structure of operating costs\*\*

EUR thous.

	2021	2022	2023
Material and energies	8 989	8 427	20 129
Repairs and maintenance	4 754	4 610	4 956
Services (including BIDSF, SIEA)	46 561	51 818	48 050
Personnel costs	34 380	35 474	37 739
Other operating costs	11 052	13 971	11 703
<b>Total:</b>	<b>105 736</b>	<b>114 300</b>	<b>122 577</b>

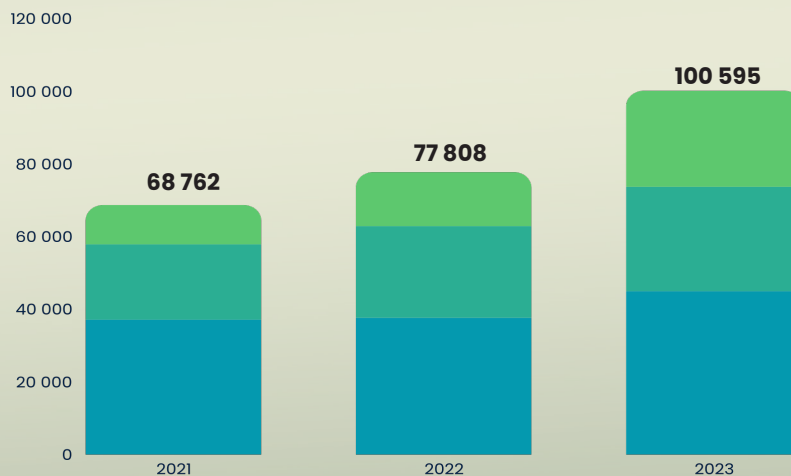


**\*\* Operating costs do not include depreciation of fixed assets and change in adjustments and provisions**

## Drawdown of funds from the NNF

EUR thous.

	2021	2022	2023
Own operating funds of the NNF	37 177	37 681	45 399
External operating funds of the NNF	20 739	25 244	28 762
Investment funds of the NNF	10 846	14 884	26 434
<b>Total:</b>	<b>68 762</b>	<b>77 808</b>	<b>100 595</b>

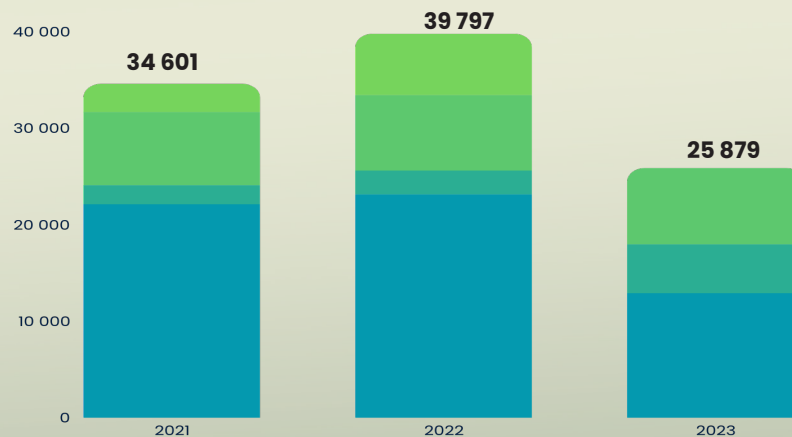




## Drawdown of funds from the BIDSF and SIEA

EUR thous.

	2021	2022	2023
Operating part from the BIDSF	22 129	23 163	12 909
Operating part from the SIEA	1 986	2 457	5 077
Project D0 fin. from the BIDSF	7 572	7 827	7 893
Investment part from the BIDSF	2 915	6 350	0
<b>Total:</b>	<b>34 601</b>	<b>39 797</b>	<b>25 879</b>





## Procurement

The updated annual procurement plan for 2023, through which the professional departments of JAVYS, a. s., applied their requirements for the provision of goods, services and work, contained 159 items with a total estimated value of EUR 340.6 million exclusive of VAT.

In 2023, 246 contracts were concluded as a result of contract awarding procedures pursuant to Act No. 343/2015 Coll. on public procurement or procedures pursuant to the internal directive of JAVYS, a. s., with a total value of EUR 18.7 million exclusive of VAT. The largest share of the total financial volume was accounted for by the contract for the supply of electricity to all consumption points of JAVYS, a. s., (except for LRW FTF) with a share of almost 31%.

In terms of commodities, the individual shares of the contracts concluded in the total financial volume were as follows: goods 42%, services 41% and work 17%.

By type of cost, the majority of contracts concluded in 2023 were for operating costs (87 %), followed by capital projects (10 %) and contracts for the supply of fixed assets not included in capital projects (IMNIP) (3 %).

## Trade and services

The active business activities of JAVYS, a. s., in 2023 were carried out in accordance with the objects of its business and focused primarily on the following areas:

### ■ Nuclear services

The provision of nuclear services covers management of radioactive waste and spent fuel from the nuclear power industry, as well as the transport of radioactive waste and spent fuel using its own technological and personnel capacities. The main business partner in 2023 was Slovenské elektrárne, a. s.

### ■ **Ensuring nuclear safety, radiation safety and operational reliability**

JAVYS, a. s., provides services that are necessary to ensure the safe operation of a nuclear power plant. These services are related to, for example, the training of personnel for work on nuclear power installations, dosimetry, radiation protection, calibration of instruments or emergency planning and preparedness.

### ■ **Leases of residential and non-residential premises and provision of related services**

JAVYS, a. s., provides its suppliers of work and services, as well as other entities, with the lease of real estate and non-residential premises on a commercial basis. The real estate or premises are used most often as administrative premises (offices), assembly halls, warehouses, cloakrooms, apartments, premises for the sale of food or the provision of catering services. The leased land and areas are primarily used for vehicle parking.

### ■ **Sale of unnecessary end-of-life assets, inventories and recoverable materials**

The sale of recoverable material, primarily from the decommissioning of the VI NPP, was carried out continuously throughout 2023. The aim of the sale is its economic recovery and the possibility of further use in industry. The sale of unnecessary decommissioned assets and inventories is carried out on the basis of a decision of the decommissioning and disposal committee through public tenders. The purpose of the sale of decommissioned assets is to place them on the market with a view to their further use and thus avoid their disposal.

### ■ **Other business activities**

As part of its business activities JAVYS, a. s., provides a wide range of other services and carries out activities that are collectively referred to as “other business activities”. This group includes services such as management of institutional radioactive waste, i.e. its collection, treatment, conditioning and storage, training and consultancy services, supply of utilities (drinking water, heat, electricity), rental or co-use of equipment, sale of demineralised water, dosimetry services, provision of PPE, etc.

The total revenues and income resulting from the above-mentioned business activities of JAVYS, a. s., including international commercial projects, sale of unnecessary end-of-life assets, unneeded inventories and recoverable material, amounted to EUR 35,359,601.43 in 2023. The provision of nuclear services accounts for the largest share of revenues from business activities.

## Logistics

In the area of supply and storage, 5,100 items were delivered in 2023 out of a total of 5,117 material items ordered. For the year 2023, the value of goods received was EUR 3,080,614 and the value of goods issued for consumption totalled EUR 3,063,567.

## Transport

Road and rail transport services were provided for the needs of JAVYS to the required extent and within the set deadlines.

In 2023, road freight services were provided for RM transports during 2023:

- FCCs with conditioned RAW from the BRWTC to the NRWR Mochovce 153 turns and from the LRW FTF to the NRWR Mochovce 43 turns,
- SRAW in 200 l MEVA drums, in ISO containers on the premises of JAVYS, from SE, a. s. V2 NPP and from the LRW FTF or SE-EMO to the BRWTC, in total 172 transports,
- LRAW within the premises of J. Bohunice 38 transports and from SE, a. s. V2 NPP to the BRWTC 55 transports,
- VLLW in ISO containers from SO 44/10 Jaslovské Bohunice to the NRWR Mochovce and from SO 364 Jaslovské Bohunice to the NRWR Mochovce 202 transports,
- 151 transports of empty FCCs from the FCC PP to the BRWTC and 42 transports to the LRW FTF,
- Ordinary shipments: 71 transports were made of empty MEVA drums, ISO containers, soil, concrete and waste from the collection yard to designated landfills outside the premises of JAVYS, a. s., and other materials in Jaslovské Bo-

hunice and at the LRW FTF.

In the field of electromobility, as an alternative to internal combustion engines, which brings a significant reduction of emissions and at the same time a reduction of operating costs, JAVYS, a. s., in 2023, acquired five ŠKODA ENYAQ iV 80 electric vehicles by means of an operating lease. The use of electric vehicles in the transport sector contributes to improving the environment. The company plans to continue the trend of electromobility in the future.

#### **The railway siding was used for rail transport:**

- regular transports and transport of various materials for own needs – for professional departments of JAVYS, a. s.,
- transports for the co-users of the siding in accordance with the concluded customer contracts for the carriage of carload shipments,
- extraordinary transports – 2 x transport of SF from the V2 NPP, 1 x transport of SF from SE, a. s., – Mochovce to the ISFS, 6 wagon-containers in total,
- extraordinary transport of FNF to Units 3 and 4 of SE EBO V2, 160 pieces of FNF were transported.



## Energy

In the area of energy, in 2023, our Company adopted saving measures in order to use purchased energy efficiently, reduce costs and save the environment. Also thanks to the implementation of the set measures, we were able to reduce the total electricity consumption compared to 2022 by 1,748 MWh and the consumption of heat for heating and DHW by 463 MWh.

Another important activity is the establishment of the local distribution system (LDS) and the participation of our Company in the construction and power output of the photovoltaic power plants FVE1 and FVE2 of JESS. With the establishment of the Local Distribution System and the modification of the AI substation, we have contributed to the streamlining and acceleration of the implementation of these projects.





## **OTHER INFORMATION**

**13**

**FINANCIAL STATEMENTS**

of Enterprises in the Double-Entry Bookkeeping System

Prepared as at 3 1 . 1 2 . 2 0 2 3



Figures are rounded on the right, other data are written from the left. Unfilled lines remain blank.

Data are filled in using block letters (as shown below) by a typewriter or a printer machine in black or dark blue.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	Ú	V	X	Y	Z	0	1	2	3	4	5	6	7	8	9
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<b>Tax Registration Number</b> 2 0 2 2 0 3 6 5 9 9	<b>Financial Statements</b> <input checked="" type="checkbox"/> Ordinary <input type="checkbox"/> Small <input type="checkbox"/> Extraordinary <input checked="" type="checkbox"/> Large <input type="checkbox"/> Interim (Mark with X)	<b>Reporting Entity</b> Month Year For the Period From 0 1 2 0 2 3 To 1 2 2 0 2 3 Immediately- Preceding Period From 0 1 2 0 2 2 To 1 2 2 0 2 2
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## Accompanying Parts of Financial Statements

<input checked="" type="checkbox"/> Balance Sheet (Úč POD 1-01) (in whole Euros)	<input checked="" type="checkbox"/> Income Statement (Úč POD 2-01) (in whole Euros)	<input checked="" type="checkbox"/> Notes (Úč POD 3-01) (in whole Euros)
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## Business Name (Name) of the Reporting Entity

J a d r o v á a v y r a d o v a c i a s p o l o č n o s t , a . s

## Seat of the Reporting Entity

Street Number

J a s i o v s k é B o h u n i c e 3 6 0

Postal Code Municipality

9 1 9 3 0 J a s i o v s k é B o h u n i c e

## Commercial Register and Number of Entry of the Company

B r a t i s l a v a I , o d d . S a , v l . č . : 4 6 4 9 / B

Phone Number

0 3 3 / 5 3 1 3 2 8 4

Fax Number

0 3 3 / 5 3 1 2 4 7 2

E-mail Address

Prepared on:

1 5 . 0 3 . 2 0 2 4

Approved on:

. . . 2 0 2 4

Signature of a Member of the Statutory Body of the Reporting Entity or a Natural Person Acting as a Reporting Entity.

## Records of the Tax Authority

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Place for Registration Number

Presentation Stamp of the Tax Authority

D1C 2 0 2 2 0 3 6 5 9 9

IČO 3 5 9 4 6 0 2 4



Description a	ASSETS b	Line c	Current Reporting Period										Immediately-Preceding Reporting Period										
			Gross - Part 1					Net 2					Net 3										
			Correction - Part 2																				
	Total assets (I. 02 + I. 33 + I. 74)	01	2	5	0	5	0	1	0	9	4	9	2	1	0	3	3	6	7	3	8	0	
			4	0	1	6	4	3	5	6	9			1	9	3	9	7	4	7	0	2	1
A.	Non-current assets (I. 03 + I. 11 + I. 21)	02	6	9	0	3	5	7	4	3	2		2	8	8	7	2	0	9	3	3		
			4	0	1	6	3	6	4	9	9			2	7	8	6	6	6	1	5	9	
A.I.	Total non-current intangible assets (I. 04 to I. 10)	03	1	8	0	4	8	4	2	9			1	6	0	8	1	3					
			1	6	4	4	0	2	9	6									7	4	3	8	1
A.I.1.	Capitalised development costs (012) - /072, 091A/	04																					
2.	Software (013) - /073, 091A/	05	1	3	3	7	0	7	6	0				1	4	4	4	0					
			1	3	3	5	6	3	2	0									6	0	4	1	4
3.	Valuable rights (014) - /074, 091A/	06	2	7	7	4	8	3	0				1	7	3	8	2	0					
			2	6	0	1	0	1	0										2	5	7	3	3
4.	Goodwill (015) - /075, 091A/	07																					
5.	Other non-current intangible assets (019, 01X) - /079, 07X, 091A/	08		5	7	8	0	4	7				9	5	0	8	1						
			4	8	2	9	6	6										1	2	9	6	5	6
6.	Non-current intangible assets in acquisition (041) - /093	09	1	3	2	4	7	9	2				1	3	2	4	7	9	2				
																			2	9	6	4	1
7.	Advance payments for non-current intangible assets (051) - /095A/	10																					
A.II.	Total non-current tangible assets (I. 012 to I. 020)	11	5	6	9	9	1	9	9	9	2		1	8	4	7	2	3	7	8	9		
			3	8	5	1	9	6	2	0	3							1	7	4	5	3	5
A.II.1.	Land (031) - /092A	12	1	8	7	6	4	3	3				1	8	7	6	4	3	3				
																			1	8	8	9	6
2.	Structures (021) - /081, 092A/	13	1	6	2	3	8	5	7	9	6		5	6	8	8	8	0	9	0			
			1	0	5	4	9	7	7	0	6								6	0	2	6	1
3.	Separate movable assets and sets of movables (022) - /082, 092A/	14	3	2	4	8	2	0	1	1	7		4	5	1	2	1	6	2	0			
			2	7	9	6	9	8	4	9	7									5	0	9	3



Description	ASSETS	Line	Current Reporting Period										Immediately-Preceding Reporting Period							
			Gross - Part 1					Net 2					Net 3							
			Correction - Part 2																	
a	b	c	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8
4	Perennial crops (025) - /085, 092A/	15																		
5	Livestock and draught animals (026) - /086, 092A/	16																		
6	Other non-current tangible assets (029, 02X, 032) - /089, 05X, 092A/	17			1	1	4	6	9				1	1	4	6	9			
7	Non-current tangible assets in acquisition (042) - 094	18			8	0	8	2	6	1	7	7		8	0	8	2	6	1	7
8	Advance payments for non-current tangible assets (052) - /095A/	19																		
9	Correction item to acquired assets (+/- 097) +/- 098	20																		
A.III	Total non-current financial assets (i. 22 to i. 32)	21			1	0	2	3	8	9	0	1	1		1	0	2	3	8	9
A.III.1	Shares and ownership interests in group companies (061A, 062A, 063A) - /096A/	22																		
2	Shares and ownership interests with a participating interest except for group companies (062A) - /096A/	23			1	0	2	3	8	9	0	1	1		1	0	2	3	8	9
3	Other held-for-sale securities and ownership interests (063A) - /096A/	24																		
4	Loans to group companies (066A) - /096A/	25																		
5	Loans within a participating interest except for group companies (066A) - /096A/	26																		
6	Other loans (067A) - /096A/	27																		
7	Debt securities and other non-current financial assets (068A, 069A, 06XA) - /096A/	28																		

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Description	ASSETS	Index/Číslo index/číslo	Current Reporting Period														Immediately-Preceding Reporting Period						
			1	Gross - Part 1								Net 2						Net 3					
				Correction - Part 2																			
a	b	c																					
8.	Loans and other non-current financial assets with remaining maturity of up to one year (066A, 067A, 069A, 06XA) - /098A/	29																					
9.	Bank accounts bound for period exceeding one year (22XA)	30																					
10.	Non-current financial assets in acquisition (043) - /096A/	31																					
11.	Advance payments for non-current financial assets (053) - /095A/	32																					
B.	Current assets (I. 34 + I. 41 + I. 53 + I. 66 + I. 71)	33		1	8	0	8	3	4	8	9	9	1	1	8	0	8	3	4	1	9	2	1



Gross a	ASSETS b	Line c	Current Reporting Period						Immediately-Preceding Reporting Period		
			Gross - Part 1			Net 2			Net 3		
			Correction - Part 2								
1.a	Trade receivables from group companies (311A, 312A, 313A, 314A, 315A, 31XA) - /391A/	43									
1.b	Trade receivables within a participating interest except for receivables from group companies (311A, 312A, 313A, 314A, 315A, 31XA) - /391A/	44									
1.c	Other trade receivables (311A, 312A, 313A, 314A, 315A, 31XA) - /391A/	45			2 3 3 8			2 3 3 8			
2	Net construction contract value (316A)	46									
3	Other receivables from group companies (351A) - /391A/	47									
4	Other receivables within a participating interest except for receivables from group companies (351A) - /391A/	48									
5	Receivables from partners, members and participants in an association (354A, 355A, 356A, 359A) -	49									
6	Receivables from derivative transactions (373A, 376A)	50									
7	Other receivables (335A, 336A, 33XA, 371A, 374A, 375A, 378A) - /391A/	51		1 4 4 0 4 2 9 9 2 7		1 4 4 0 4 2 9 9 2 7					
8	Deferred tax asset (481A)	52			3 9 5 6 3 4 7		3 9 5 6 3 4 7				
B.III.	Total current receivables (I. 54 + I. 58 to I. 65)	53			1 5 9 5 9 7 6 7 0		1 5 9 5 9 0 6 0 0				
B.III.1	Total trade receivables (I. 55 to I. 57)	54			1 4 5 5 2 2 1 5		1 4 5 4 5 3 9 7				
1.a	Trade receivables from group companies (311A, 312A, 313A, 314A, 315A, 31XA) - /391A/	55			1 3 2 0 2 9		1 3 2 0 2 9				
1.b	Trade receivables within a participating interest except for receivables from group companies (311A, 312A, 313A, 314A, 315A, 31XA) - /391A/	56									



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Description a	ASSETS b	Line c	Current Reporting Period												Immediately-Preceding Reporting Period																
			1	Gross - Part 1						Net 3						Gross - Part 1						Net 3									
				Correction - Part 2												Correction - Part 2															
B.V.	Financial accounts I. 72 + I. 73	71		2	0	3	2	2	8	7	8	3		2	0	3	2	2	8	7	8	3									
																			1	6	8	2	7	0	0	8	9				
B.V.1	Cash on hand (211, 213, 21X)	72							5	6	7	2							5	6	7	2									
																										2	9	9	4		
2.	Bank accounts (221A, 22X, +/- 261)	73		2	0	3	2	2	3	1	1	1		2	0	3	2	2	3	1	1	1									
																			1	6	8	2	6	7	0	9	5				
C.	Total accruals and deferrals (I. 75 to I. 78)	74			6	3	0	4	5	2	6			6	3	0	4	5	2	6											
																			1	0	0	8	1	0	4	5					
C.1.	Non-current deferred expenses (381A, 382A)	75					1	4	7	2	3	7					1	4	7	2	3	7									
																							1	4	7	2	3	7			
2.	Current deferred expenses (381A, 382A)	76					1	5	7	4	9	3					1	5	7	4	9	3									
																							1	9	2	4	0	3			
3.	Non-current accrued income (385A)	77																													
4.	Current accrued income (385A)	78					5	9	9	9	7	9	6				5	9	9	9	7	9	6								
																									9	7	4	1	4	0	5

Description a	EQUITY AND LIABILITIES b	Line c	Current Reporting Period												Immediately-Preceding Reporting Period															
			4													5														
	TOTAL EQUITY AND LIABILITIES I. 80 + I. 101 + I. 141	79		2	1	0	3	3	6	7	3	8	0		1	9	3	9	7	4	7	0	2	1						
A.	Equity I. 80 + I. 85 + I. 86 + I. 87 + I. 90 + I. 93 + I. 97 + I. 100	80			2	1	3	1	6	9	1	1	2			2	1	1	7	0	7	8	3	8						
A.I.	Total registered capital (I. 82 to I. 84)	81					3	6	4	4	6	9	4	0				3	6	4	4	6	9	4	0					
A.I.1.	Registered capital (411 or +/- 491)	82					3	6	4	4	6	9	4	0				3	6	4	4	6	9	4	0					
2.	Changes in the registered capital +/- 419	83																												
3.	Receivables for subscribed capital (-/353)	84																												
A.II.	Share premium (412)	85																												
A.III.	Other capital funds (413)	86																												
A.IV.	Legal reserve funds I. 88 + I. 89	87					8	4	2	2	6	8	5					8	4	2	2	6	8	5						
A.IV.1.	Legal reserve fund and non-distributable fund (417A, 418, 421A, 422)	88					8	4	2	2	6	8	5					8	4	2	2	6	8	5						
2.	Reserve fund for treasury stock and treasury shares (417A, 421A)	89																												



Description a	EQUITY AND LIABILITIES b	Line c	Current Reporting Period 4										Immediately-Preceding Reporting Period 5											
A.V.	Other funds from profit I. 91 + I. 92	90			2	8	9	5	4	4	6	3			2	8	9	6	9	4	6	3		
A.V.1.	Statutory funds (427, 42X)	91																						
2.	Other funds (427, 42X)	92			2	8	9	5	4	4	6	3			2	8	9	6	9	4	6	3		
A.VI.	Total revaluation reserves (I. 94 to I. 96)	93			9	6	1	0	4	0	3	5			9	7	1	0	1	3	7	7		
A.VI.1.	Asset and liability revaluation reserve (+/- 414)	94			-	1	8	9	8	7	2	6	6		-	1	7	9	8	9	9	2	4	
2.	Financial investments revaluation reserve (+/- 415)	95			1	1	5	0	9	1	3	0	1		1	1	5	0	9	1	3	0	1	
3.	Revaluation reserve from fusions, mergers and separations (+/- 416)	96																						
A.VII.	Profit/loss from previous years I. 98 + I. 99	97			3	8	9	4	4	0	8	6			3	7	4	6	2	3	8	9		
A.VII.1.	Retained earnings from previous years (428)	98			3	8	9	4	4	0	8	6			3	7	4	6	2	3	8	9		
2.	Accumulated losses from previous years (-/- 429)	99																						
A.VIII.	Profit/loss for the current reporting period after taxation (= I. 97 - (I. 91 + I. 95 + I. 96 + I. 97 + I. 99 + I. 93 + I. 97 + I. 101 + I. 141))	100			4	2	9	6	9	0	3				3	3	0	4	9	8	4			
B.	Liabilities I. 102 + I. 118 + I. 121 + I. 122 + I. 126 + I. 129 + I. 140	101			1	7	4	8	9	8	1	7	2	0	1	6	0	3	0	4	4	5	4	6
B.1.	Total non-current liabilities (I. 103 + I. 107 to I. 117)	102			3	7	4	6	4	6	6				4	1	6	3	7	8	9			
B.1.1.	Total long-term trade payables (I. 104 to I. 106)	103																						
1.a.	Trade payables to group companies (321A, 475A, 476A)	104																						
1.b.	Trade payables within a participating interest except for payables to group companies (321A, 475A, 476A)	105																						
1.c.	Other trade payables (321A, 475A, 476A)	106																						
2.	Net construction contract value (316A)	107			3	3	6	5	4	7	8				3	7	9	8	1	9	5			
3.	Other payables to group companies (471A, 47XA)	108																						
4.	Other payables within a participating interest except for payables to group companies (471A, 47XA)	109																						
5.	Other long-term payables (479A, 47XA)	110																						
6.	Long-term advance payments received (475A)	111																						
7.	Long-term bills of exchange to be paid (478A)	112																						
8.	Bonds issued (473A/-/255A)	113																						
9.	Social fund payables (472)	114			3	8	0	9	8	8					3	6	5	5	9	4				
10.	Other non-current payables (336A, 372A, 474A, 47XA)	115																						
11.	Long-term payables from derivative transactions (373A, 377A)	116																						
12.	Deferred tax liability (481A)	117																						

UZPDDv14.9

Balance  
Sheet (Uč  
Príloha 1.01)

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Description a	EQUITY AND LIABILITIES b	Line c	Current Reporting Period 4										Immediately-Preceding Reporting Period 5												
			1	5	8	6	3	5	7	8	0	2	1	4	4	0	4	7	1	1	2	0			
B.II.	Long-term provisions for liabilities I. 119 + I. 120	118		1	5	8	6	3	5	7	8	0	2			1	4	4	0	4	7	1	1	2	0
B.II.1.	Legal provisions for liabilities (451A)	119																							
2	Other provisions for liabilities (459A, 45XA)	120		1	5	8	6	3	5	7	8	0	2			1	4	4	0	4	7	1	1	2	0
B.III.	Long-term bank loans (461A, 46XA)	121																							
B.IV.	Total current liabilities (I. 123 + I. 127 to I. 135)	122			2	3	2	6	1	2	4	0				1	9	6	7	6	2	0	8		
B.IV.1	Total trade payables (I. 124 to I. 126)	123			1	7	0	9	7	4	6	0				1	4	5	8	3	4	6	7		
1.a	Trade payables to group companies (321A, 322A, 324A, 325A, 326A, 32XA, 475A, 476A, 478A, 47XA)	124			1	2	9	7	2	7	2					3	1	3	6	6	9				
1.b	Trade payables within a participating interest except for payables to group companies (321A, 322A, 324A, 325A, 326A, 475A, 476A, 478A, 47XA)	125																							
1.c	Other trade payables (321A, 322A, 324A, 325A, 326A, 32XA, 475A, 476A, 478A, 47XA)	126			1	6	9	6	7	7	3	8				1	4	2	6	9	7	9	8		
2	Net construction contract value (316A)	127			3	6	1	7	3	4						2	9	0	7	5	0				
3	Other payables to group companies (361A, 36XA, 471A, 47XA)	128																							
4	Other payables within a participating interest except for payables to group companies (361A, 36XA, 471A, 47XA)	129																							
5	Payables to partners and participants in all associations (364, 365, 366, 367, 368, 399A, 478A, 479A)	130																							
6	Payables to employees (331, 333, 33X, 479A)	131			2	4	3	3	0	7	3					1	7	8	3	2	5	1			
7	Social security insurance payables (336A)	132			1	3	7	8	9	1	2					1	1	5	4	2	6	4			
8	Tax liabilities and subsidies (341, 342, 343, 345, 346, 347, 34X)	133			5	3	9	8	4	7						4	4	3	1	7	2				
9	Payables from derivative transactions (373A, 377A)	134																							
10	Other payables (372A, 379A, 474A, 475A, 479A, 47XA)	135			1	4	5	0	2	1	4					1	4	2	1	3	0	4			
B.V.	Short-term provisions for liabilities I. 137 + I. 138	136		1	3	5	6	1	2	2	8	1				1	3	8	7	2	6	7	1		
B.V.1	Legal provisions for liabilities (323A, 451A)	137				7	6	7	2	3	7						6	6	6	2	0	1			
2	Other provisions for liabilities (323A, 32X, 459A, 45XA)	138		1	3	4	8	4	5	0	4	4				1	3	8	0	6	0	5	7	0	
B.VI.	Current bank loans (221A, 231, 232, 23X, 461A, 46XA)	139				3	9	3	1																
B.VII.	Short-term financial assistance (241, 249, 24X, 473A, /-255A)	140																							
C.	Total accruals and deferrals (I. 142 to I. 145)	141		1	4	1	2	1	6	5	4	8				1	2	4	9	9	4	6	3	7	
C.1.	Non-current accrued expenses (383A)	142																							
2	Current accrued expenses (383A)	143					4	5	1												6	0	1		
3	Non-current deferred income (384A)	144		1	2	8	4	2	3	7	3	5				1	1	1	0	2	8	3	6	7	
4	Current deferred income (384A)	145		1	2	7	9	2	3	6	2					1	3	9	6	5	6	6		9	



Description a	Item b	Line c	Actual																			
			Current Reporting Period									Immediately-Preceding Reporting Period										
			1									2										
-	Net turnover (a portion of Accounting Class 6 under the Act)	01	3	2	1	3	4	6	2	3	2	8	9	4	1	5	6	7				
**	Total operating revenues (I. 03 to I. 09)	02	1	5	0	6	6	5	4	4	3	1	4	4	3	1	3	6	0	9		
I.	Revenues from the sale of merchandise (604, 607)	03																				
II.	Revenues from the sale of own products (601)	04				5	6	7	7	1					4	1	5	5	7			
III.	Revenues from the sale of services (602, 606)	05		3	2	0	7	7	8	5	2		2	8	9	0	0	0	1	0		
IV.	Changes in inventories (+/- Accounting Group 61)	06																				
V.	Own work capitalised (Accounting Group 62)	07		3	1	6	8	5	5	8			2	8	3	2	9	6	7			
VI.	Revenues from the sale of non-current intangible assets, non-current tangible assets and raw materials (641, 642)	08				5	6	4	2	0			1	1	7	5	3	2	0			
VII.	Other operating revenues (644, 645, 646, 648, 655, 657)	09		1	1	5	3	0	5	8	4	2	1	1	1	3	6	3	7	5	5	
**	Total operating expenses (I. 11 + I. 12 + I. 13 + I. 14 + I. 15 + I. 20 + I. 21 + I. 24 + I. 25 + I. 26)	10		1	4	4	2	8	6	5	1	1	1	3	4	4	3	2	1	1	4	
A.	Costs of the acquisition of merchandise sold (604, 607)	11																				
B.	Consumed raw materials, energy and other non-inventory supplies (501, 502, 503)	12		2	0	1	2	9	6	0	9			8	4	2	6	5	9	0		
C.	Provisions for inventories (+/-) (505)	13																				
D.	Services (Accounting Group 51)	14		5	3	3	0	7	8	0	4			5	6	6	0	4	6	9	6	
E.	Total personnel expenses (I. 16 to I. 19)	15		3	7	2	9	6	7	6	8			3	5	0	9	1	7	0	3	
E.1.	Wages and salaries (521, 522)	16		2	3	9	6	9	6	4	8			2	2	7	2	5	0	7	7	
2.	Remuneration of members of company bodies and co-operative (523)	17				3	4	5	4	9	6				3	1	6	9	8	9		
3.	Social insurance expenses (524, 525, 526)	18				9	9	2	0	8	6	3			9	2	5	9	5	8	6	
4.	Social expenses (527, 528)	19				3	0	6	0	7	6	1			2	7	9	0	0	5	1	
F.	Taxes and fees (Accounting Group 53)	20				2	9	6	4	1	5	9			2	9	2	9	1	4	0	
G.	Amortisation and depreciation, and provisions for non-current intangible and non-current tangible assets (I. 22 + I. 23)	21				2	0	7	5	9	2	6	1		1	7	1	1	5	4	9	2
G.1.	Amortisation and depreciation of non-current intangible and non-current tangible assets (551)	22				1	9	9	0	1	3	9	1		2	0	6	8	0	7	7	8
2.	Provisions for non-current intangible and non-current tangible assets (+/-) (553)	23				8	5	7	8	7	0			-	3	5	6	5	2	8	6	
H.	Net book value of non-current assets and raw materials sold (541, 542)	24				2	1	6	7	3					5	9	6	4	9	4		
I.	Provisions for receivables (+/-) (547)	25														1	2	5	4			
J.	Other operating expenses (543, 544, 545, 546, 548, 549, 555, 557)	26				9	8	0	7	2	3	7			1	3	6	6	6	7	4	5
***	Operating profit or loss (+/-) (I. 02 - I. 10)	27				6	3	7	8	9	3	2			9	8	8	1	4	9	5	



Description a	Item b	Line c	Actual																	
			Current Reporting Period									Immediately-Preceding Reporting Period								
			1									2								
+	Added value (l. 03 + l. 04 + l. 05 + l. 06 + l. 07) - (l. 11 + l. 12 + l. 13 + l. 14)	28	-	3	8	1	3	4	2	3	2	-	3	3	2	5	6	7	5	2
..	Total revenues from financing activities (l. 30 + l. 31 + l. 35 + l. 39 + l. 42 + l. 43 + l. 44)	29		5	5	1	6	0	3	7	0		2	4	6	8	1	3	4	0
VIII.	Revenues from the sale of securities and ownership interests (651)	30																		
IX.	Total revenues from non-current financial assets (l. 32 to l. 34)	31																		
IX.1.	Revenues from securities and ownership interests from group companies (655A)	32																		
2	Revenues from securities and ownership interests within a participating interest except for revenues from group companies (655A)	33																		
3	Other revenues from securities and ownership interests (655A)	34																		
X.	Total revenues from current financial assets (l. 36 to l. 38)	35																		
X.1.	Revenues from current financial assets from group companies (660A)	36																		
2	Revenues from current financial assets within a participating interest except for revenues from group companies (660A)	37																		
3	Other revenues from current financial assets (660A)	38																		
XI.	Interest income (l. 40 + l. 41)	39		5	4	8	1	7	2	4			6	0	2	5	2	7		
XI.1.	Interest income from group companies (662A)	40		4	0	6	8	4	9				9	6	5	4	6			
2	Other interest income (662A)	41		5	0	7	4	8	7	5			5	0	5	9	8	1		
XII.	Foreign exchange gains (663)	42								2	4							-	1	1
XIII.	Gains on revaluation of securities and revenues from derivative transactions (664, 667)	43																		
XIV.	Other revenues from financing activities (668)	44		4	9	6	7	8	6	2	2		2	4	0	7	8	8	2	4
..	Total costs of financing activities (l. 46 + l. 47 + l. 48 + l. 49 + l. 52 + l. 53 + l. 54)	46		5	3	9	1	6	6	5	0		2	8	3	1	8	5	4	8
K.	Securities and ownership interests sold (561)	46																		
L.	Expenses related to current financial assets (566)	47																		
M.	Provisions for financial assets (+/-) (565)	48																		
N.	Interest expense (l. 50 + l. 51)	49																		
N.1.	Interest expense for group companies (562A)	50																		
2	Other interest expense (562A)	51																		
O.	Foreign exchange losses (563)	52																		6
P.	Expenses for revaluation of securities and expenses related to derivative transactions (564, 567)	53																		
Q.	Other costs of financing activities (568, 569)	54		5	3	9	1	6	6	5	0		2	8	3	1	8	5	4	2



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Description a	Item b	Line c	Actual																			
			Current Reporting Period								Immediately-Preceding Reporting Period											
			1								2											
...	Profit/loss from financing activities (+/-) (l. 29 - l. 45)	55				1	2	4	3	7	2	0			-	3	6	3	7	2	0	8
....	Profit/loss for the reporting period before taxation (+/-) (l. 27 + l. 55)	56				7	6	2	2	6	5	2			6	2	4	4	2	8	7	
R.	Income tax (l. 58 + l. 59)	57				3	3	2	5	7	4	9			2	9	3	9	3	0	3	
R.1.	Current income tax (591, 595)	58				2	7	7	4	1	7	4			3	0	6	0	7	4	4	
2.	Deferred income tax (+/-) (592)	59				5	5	1	5	7	5				-	1	2	1	4	4	1	
S.	Profit/loss of partnership transferred to partners (+/-, 596)	60																				
---	Profit/loss for the reporting period after taxation (+/-) (l. 56 - l. 57 - l. 60)	61				4	2	9	6	9	0	3			3	3	0	4	9	8	4	

## Independent Auditor's Report

To the Shareholder, Supervisory Board and Board of Directors of Jadrová a vyradovacia spoločnosť, a.s.:

### **Report on the Audit of the Financial Statements**

#### *Opinion*

We have audited the financial statements of Jadrová a vyradovacia spoločnosť, a.s. (the "Company"), which comprise the balance sheet as at 31 December 2023, the income statement for the year then ended, and notes, which comprise a summary of significant accounting policies.

In our opinion, the accompanying financial statements give a true and fair view of the financial position of the Company as at 31 December 2023 and of its financial performance for the year then ended in accordance with Act No. 431/2002 Coll. on accounting, as amended (the "Act on Accounting").

#### *Basis for Opinion*

We conducted our audit in accordance with International Standards on Auditing ("ISA"). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Company in accordance with the provisions of Act No. 423/2015 on statutory audit and on the amendment to Act No. 431/2002 Coll. on accounting, as amended (the "Act on Statutory Audit") related to ethics, including Auditor's Code of Ethics, that are relevant to our audit of the financial statements, and we have fulfilled other requirements of these provisions related to ethics. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### *Emphasis of Matter*

We draw attention to notes III.4, IV.2 and VIII.2 to the financial statements. The Company has valued its liabilities and accounted for the related receivables in connection with the decommissioning of nuclear reactor and non-reactor facilities, storage of spent nuclear fuel and radioactive waste treatment on the basis of the National Policy and National Programme for the Management of Spent Nuclear Fuel and Radioactive Waste in the Slovak Republic. The estimates and assumptions considered by management in making these provisions are inherently sensitive to expectations of future cost and cash flow projections, inflation, discount rates, technical plans and changes in government legislation. Any changes in these parameters could materially affect the value of the provisions recognised in the Company's financial statements in future periods.

Further, we draw attention to notes I.1.2 and III.2 to the financial statements. The company established the joint venture Jadrová energetická spoločnosť Slovenska, a. s. together with ČEZ Bohunice a. s., a subsidiary of ČEZ, a. s., with the aim of building a new nuclear power source. The future development and return on the investment in the joint venture depends on the successful implementation of the project for the construction and subsequent operation of a new nuclear power source at the site of the nuclear power plant in Jaslovské Bohunice. A decision on construction will be made in the future.

Our opinion is not modified in light of these facts.

#### *Responsibility of the Statutory Body and those Charged with Governance for the Financial Statements*

The statutory body is responsible for the preparation of these financial statements that give a true and fair view in accordance with the Act on Accounting and for such internal control as it determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

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

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

#### *Auditor's Responsibilities for the Audit of the Financial Statements*

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

In an audit conducted under the ISA, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures to address those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
- Evaluate the appropriateness of the accounting policies used and the reasonableness of accounting estimates and related disclosures made by the statutory body.
- Conclude on the appropriateness of the statutory body's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements including the presented information as well as whether the financial statements captures the underlying transactions and events in a manner that leads to their fair presentation.

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

***Report on other Requirements of Laws and Regulations***

***Report on Information Disclosed in the Annual Report***

The statutory body is responsible for the information disclosed in the annual report, prepared based on requirements of the Act on Accounting. Our opinion on the financial statements expressed above does not apply to other information contained in the annual report.

In connection with audit of the financial statements it is our responsibility to understand the information disclosed in the annual report and to consider whether such information is not materially inconsistent with audited financial statements or our knowledge obtained in the audit of the financial statements, or otherwise appears to be materially misstated.

The annual report was not available to us as at the date of issue of the auditor's report on the audit of the financial statements.

When we obtain the annual report, we will consider whether the Company's annual report contains information, disclosure of which is required by the Act on Accounting and based on procedures performed during the audit of financial statements, we will express our opinion considering whether:

- Information disclosed in the annual report, prepared for 2023, is consistent with the financial statements for the relevant year,
- The annual report contains information based on the Act on Accounting.

Additionally, we will disclose whether material misstatements were identified in the annual report based on our understanding of the entity and its situation, obtained in the audit of the financial statements.

22 March 2024  
Bratislava, Slovak Republic

Ernst & Young Slovakia, spol. s r.o.  
SKAU Licence No. 257

*illegible signature*  
Ing. Tomáš Přeček, Statutory Auditor  
UDVA Licence No. 1067

## ABBREVIATIONS

ALARA	As Low As Reasonable Achievable – the principle of optimisation of radiation exposure of persons
BIDSF	Bohunice International Decommissioning Support Fund
BIOCLAR	Waste water treatment plant
OHS	Occupational health and safety
BRWTC	Bohunice Radioactive Waste Treatment Centre
CP	Civil protection
CO	Carbon monoxide
CO <sub>2</sub>	Carbon dioxide
Corg.	Organic carbon
FNF	Fresh nuclear fuel
DHM	Tangible fixed assets
DNM	Intangible fixed assets
DrHM	Low-value tangible assets
LTS	Long-term storage
TOFST	Tax Office for Selected Taxpayers
EBRD	European Bank for Reconstruction and Development
EDF	Électricité de France S.A
EIA	Environmental impact assessment
EC	European Commission
EU	European Union
FCHPT STU	Faculty of Chemical and Food Technology of the Slovak University of Technology
LRW FTF	Liquid RAW Final Treatment Facility
HL	Hygienic loop
MRB	Main reactor building
FVE	Photovoltaic power plants (FVE1, FVE2)
INES	International Nuclear and Radiological Event Scale
IRAW	Institutional radioactive wastes
IMS	Integrated management system
ISO	International Organization for Standardization

IRAWS	Integral radioactive waste storage facility
JAVYS, a. s.	Jadrová a vyradovacia spoločnosť, joint-stock company
NS	Nuclear safety
NPP	Nuclear power plant
JESS, a. s.	Jadrová energetická spoločnosť Slovenska, joint-stock company
NI	Nuclear Installation
SC	Safety culture
LRAW	Liquid radioactive waste
KR HaZZ	Regional Fire and Rescue Corps Directorate
L&C	Limits and conditions
IAEA	International Atomic Energy Agency
LDS	Local distribution system
ME SR	Ministry of Economy of the Slovak Republic
MoU	Memorandum of Understanding
MLSAF SR	Ministry of Labour, Social Affairs and Family of the Slovak Republic
ISFS	Interim Spent Fuel Storage
MH SR	Ministry of Health of the Slovak Republic
MEnv SR	Ministry of Environment of the Slovak Republic
LLW	Low-level waste
NNF SR	National Nuclear Fund of the Slovak Republic
NOx	Nitrogen oxides
NSC	Nuclear and Radiation Safety Centre
PPE	Personal protective equipment
RES	Renewable energy sources
PMU	Project Manager Unit
OR	Operating regulation
SRAW	Solid radioactive wastes
TE	Transport equipment
RAW	Radioactive waste
RF	Russian Federation
RM	Radioactive material
RMUO	Radioactive material of unknown origin
RH	Reactor hall
NRWR	National RAW Repository



SE, a. s.	Slovenské elektrárne, joint-stock company
SE-EBO	Slovenské elektrárne, a. s., Bohunice NPP (V2 NPP)
SE-EMO	Slovenské elektrárne, a. s., Mochovce NPP (EMOI, 2, 3)
SIEA	Slovak Innovation and Energy Agency
SMR	Small modular reactor
SO <sub>2</sub>	Sulphur dioxide
SR	Slovak Republic
RAW TCT	RAW treatment and conditioning technology
DHW	Domestic hot water
NRA SR	Nuclear Regulatory Authority of the Slovak Republic
PHA SR	Public Health Authority of the Slovak Republic
FCC	Fibre-concrete container
VLLW	Very low-level waste
FCC PP	Fibre-concrete container producing plant
SF	Spent fuel
HP – compaction	High-pressure compaction
HVAC	Heating, ventilation, and air conditioning
SFP	Sludge fixation plant
CRM	Captured radioactive material



### **ANNUAL REPORT 2023**

Jadrová a vyrad'ovacia spoločnosť, a. s.  
Jaslovské Bohunice 360  
919 30 Jaslovské Bohunice  
[www.javys.sk](http://www.javys.sk)