

Nuclear Decommissioning Assistance Programme

Bohunice Programme

Work Programme 2021 - 2022

Annex 3

Decommissioning programme

DEFINITIONS, ABBREVIATIONS AND ACRONYMS

BIDSF	Bohunice International Decommissioning Support Fund
COM	European Commission
DDP	Detailed Decommissioning Plan of V1 NPP
DMS	Documentation Management System
DP	Detailed Plan
EBRD	European Bank for Reconstruction and Development
EC	European Commission
EU	European Union
H1 / H2	First half-year / Second half-year
JAVYS	Jadrová a vyrad'ovacia spoločnosť, a.s.
MFF	Multi-annual Financial Framework
NNF	National Nuclear Fund
No.	Number
NPP	Nuclear power plant
PMU	Project Management Unit
PPO	Public Procurement Office
Project 55	Project "Support in the Preparation of the Reactor Building for the Decontamination of the Primary Circuit of KNPP Units 1- 4"
SIEA	The Slovak Innovation and Energy Agency
V1 NPP	V1 Nuclear Power Plant
WP	Work Programme

Brussels,9.12.2021

1. CURRENT STATE

The Bohunice Programme continues to make good progress. During the past months, dismantling and decontamination works in the reactor building, implemented within the project **D4.2 “Dismantling of Reactor Coolant System Large Components”**, have been executed. In general, the project is progressing well despite its very complex nature with regard to scope of works, project duration (72 months) and labour involved (more than 200 workers inside the V1 NPP daily). Multiple activities are being carried out simultaneously in different workplaces. Highlights from the last few months include:

- Transport of all steam generators (twelve) from the reactor hall to the premises of the former turbine hall (extended controlled area) for further fragmentation and treatment;
- Establishment of the dry-cutting and wet-cutting workshops; pre-commissioning and commissioning tests were completed;
- Fragmentation of five (out of twelve) steam-generators in the dry-cutting workshop was completed;
- Completed dismantling and fragmentation of two V1 NPP bubble tanks (both Units);
- Completed dismantling and fragmentation of two pressurisers (both Unit 1 and Unit 2);
- Completed dismantling and fragmentation of reactor vessel lids (both Unit 1 and Unit 2);
- completed dismantling and fragmentation of primary circuit piping (both Unit 1 and Unit 2);
- Completed dismantling of main coolant pumps (both Unit 1 and Unit 2);
- Ongoing dismantling of main isolation valves, auxiliary equipment, ongoing fragmentation of main coolant pumps, etc.;
- Lifting and transport of the V1 NPP Unit 1 reactor pressure vessel and reactor’s internal components from the reactor shaft to the wet cutting workshop (May 2020); remote fragmentation of the reactor pressure vessel (Unit 1) continues;
- Lifting and transport of the V1 NPP Unit 2 reactor pressure vessel and reactor’s internal components from the reactor shaft to the wet cutting workshop (April 2021);
- Reactor shielding assemblies were dismantled, fragmented, packaged and transported to the Interim storage of RAW for long-term storage;
- Completed dismantling and fragmentation of the annular water tank (Unit 1).

Despite the fact that some project activities experienced several-month delays, the Contractor has assured the Employer (JAVYS) that the previously made optimisation created sufficient time contingency to complete the project as contractually set.

Another key dismantling project, **D4.4B “Dismantling of Systems in the V1 NPP Controlled Area – Part 1”**, was finalised in March 2021, in compliance with the baseline schedule. Implementation of this project lasted 42 months. RAW which has arisen from this project is being treated on the RAW treatment facilities of JAVYS. Subject to RAW treatment, part of the dismantled material will be released into the environment while non-releasable waste will be disposed of in the National Repository at Mochovce.

The **Subproject D4.4C.01 “Dismantling of Systems in the V1 NPP Controlled Area – Part 2, D4.4C.01 Subproject”** is the first project implemented through the national agency (the SIEA). Following contract signature in August 2019, sets of initial documentation for the licencing processes were elaborated by the contractor. Initial physical preparatory works have

started: staff mobilisation, radiation protection measures, establishment of workplaces, drainage of equipment, collection and fixation of sludge, removal and cleaning of filters, removal of dangerous materials, dismantling of liners, etc. After approval of licencing and design documentation by the state administration authorities dismantling of equipment in frame of this project shall start.

Another **project C7-A4 “Metallic RAW Melting Facility”** is an investment project whose goal is the installation and commissioning of a facility for melting RAW arising from decommissioning of the nuclear facilities. The project is approaching its finalisation while it is encountering delays. Due to a transformer, burnout during the commissioning testing and following repairs performed at the manufacturing plant (in Ukraine) the time for completion of the project was extended to September 2020. After transport of repaired transformer back to Bohunice site, its electrical connection and on-site commissioning testing were planned. Due to governmental anti-pandemic restrictions, the foreign manufacturer’s experts were not allowed to enter Slovakia, which resulted in further delay in contract implementation. Later on, another technical problems occurred during inactive testing of the furnace (hardening of the lining of the melting facility, unexpected leakage of slag from the furnace). Subsequent repair shall result in further delay of RAW melting facility testing and, finally, the completion date of the project. The extensions of the contract have no impact on the critical path of the V1 NPP decommissioning.

With regard to the **project D4.1 “Modification of the Plant and Installation of New Equipment”**, out of its seven subprojects, four have already been completed. Modification of pipeline routes and facilities in frame of the scope of the project continued and were followed by commissioning tests. Due to the necessity to extend the scope of works (justified Contractor’s claim regarding changes in design made while implementing the construction works within the project) the completion date of the project was extended to September 2021. Although the extension of the completion date is material (19 months), it has no impact on the critical path of the V1 NPP decommissioning.

Regarding the final activities of the V1 NPP decommissioning to be implemented within the scope of **Subproject D4.7.01 “Decontamination and Demolition of V1 NPP Buildings and Site Restoration, D4.7.01 Subproject”** the respective tender documentation was finalised and sent (in 08/2020) for review to the stakeholders (the national implementing authority SIEA and the Public Procurement Office). After receipt of the non-compliance notification (issued by the PPO in 09/2020), JAVYS reissued modified Tender Documentation and sent it back to the PPO for their review. The PPO issued an affirmative notification to the document in 11/2020. JAVYS launched a public procurement procedure by publishing Contract notice in the „Supplement to the EU Official Journal” and the “Public Procurement Journal”. Potential tenderers raised complaints mainly to conditions of participation. JAVYS prepared and submitted to the PPO its standpoint in 01/2021. In 02/2021, the PPO suspended the proceedings and requested elaboration of independent expert statement. In 04/2021, the PPO rejected the complaints in full scope. In 05/2021, JAVYS published the Notice extending the deadline for submitting of application to participate in the tender.

2. DESCRIPTION OF THE ACTION

For the period 2021-2022 is expected to continue with the implementation of the projects planned in the detailed decommissioning plan summarised in the table below:

Project ID	Project Name	Description	Entrusted entity
B Projects	Decommissioning Licensing Documentation		
B6.6A	Decommissioning support surveys	The objective of the project is to perform the necessary radiological and hazardous materials sampling as well as laboratory analyses for the supporting characterisation within the V1 NPP decommissioning process.	EBRD
B/D Projects	Human resources & Training		
A1.10 (till 14/06/2021) A1.11 (from 15/06/2021)	PMU Consultant – Phase 10 (Phase 11)	The objective of the project is to provide support in V1 NPP decommissioning process by providing consultancy services in the area of engineering, cost estimate, contract management and monitoring of the individual projects related to the V1 NPP decommissioning. The key activity for this phase shall be the contract management for V1 NPP decommissioning projects in their implementation phase.	EBRD
D0	D0 Implementation of the decommissioning programme using the human resources available at Bohunice V1 Nuclear Power Plant (in the year 2021) (in the year 2022)	The objective of the BIDSF project D0 is to help to finance salary costs, including remuneration costs in accordance with valid company collective agreement, and levies enforced by the law of JAVYS personnel taking part in V1 NPP decommissioning and to finance supporting personnel for the administration of activities related to the V1 NPP decommissioning in the years 2021 and 2022.	EBRD
DMS	Documentation Management System	<i>The project will not be implemented.</i>	
C/D Projects	Waste Management and Disposal		

Project ID	Project Name	Description	Entrusted entity
C7-A4	Metallic RAW Melting Facility	<p>The objective of the project is to install and commission a facility for melting of metallic RAW materials originated from the decommissioning of nuclear power plants at Bohunice site, allowing free release of a significant amount of metallic waste with low content of radionuclides and/or reduction of metallic waste volume requiring final disposal and therefore, saving disposal capacity. Part of the project related to waste from V1 NPP decommissioning is covered by the EU sources (representing 19% of the contract price).</p>	EBRD
C8-B.02	<p>Temporary storage of materials from V1 NPP decommissioning (DDP 2017 title: Interim storage of RAW for special wastes)</p>	<p>The scope and title of the project was changed as discussed at Monitoring Committee Meeting held in Luxembourg on 15 October 2019. Grant was allocated to the project in July 2020.</p> <p>The changed scope will include modification of CB 760-II.3,4,5:V1 (Škoda Hall) which shall serve as a temporary storage of materials from V1 NPP decommissioning. Such optimisation is necessary since the civil building will be needed in 2021, taking into account more stringent limits in line with the provisions of Act No. 87/2018 Coll. on Radiation Protection; as well as based on D4.2 fragmentation plans of individual workshops for surface contaminated metal materials. In 2023, dry fragmentation and decontamination facilities for abrasive blasting used within D4.2 project will be relocated to the “Škoda Hall” temporary storage to continue their operation after demolition of the Reactor Hall within the very last project D4.7.01.</p> <p>The project C8-B “Temporary storage of materials from V1 NPP decommissioning” will be divided into two parts:</p> <ul style="list-style-type: none"> ▪ C8-B.01 dealing with procurement of Detail Design, funded from the Slovak sources; ▪ C8-B.02 dealing with implementation of Detail Design, funded from the available EU sources. 	EBRD

Project ID	Project Name	Description	Entrusted entity
C12.2	Laboratory equipment necessary in the process of V1 NPP Decommissioning Stage II	The objective of this project is to provide the purchase of the laboratory and instrument equipment for the V1 NPP decommissioning needs. Note: <i>Grant shall be requested according to decommissioning needs and shall be included in respective Work Programme.</i>	SIEA
D2-A_RAW	Radioactive waste processing, transport to and disposal at the repository implemented by the Recipient	The project is aimed at processing of radioactive waste produced during the decontamination of the V1 NPP primary circuit within the project D2-A “Decontamination of the primary circuit – II. Stage” and its transport to and disposal at the National Radwaste Repository in Mochovce (implemented by the Recipient - JAVYS).	EBRD
D4.2_RAW	Radioactive waste processing, transport to and disposal at the repository implemented by the Recipient	The project is aimed at processing of radioactive waste produced during the implementation of the project D4.2 “Dismantling of Reactor Coolant System Large Components” and its transport to and disposal at the National Radwaste Repository in Mochovce (implemented by the Recipient - JAVYS).	EBRD
D4.3A_RAW	Radioactive waste processing, transport to and disposal at the repository implemented by the Recipient*	The project is aimed at processing of radioactive waste produced during the implementation of the project D4.3A “Dismantling of Insulation in the V1 NPP Controlled Area” and its transport to and disposal at the National Radwaste Repository in Mochovce (implemented by the Recipient - JAVYS). <i>*Project is planned for implementation until 2023 in DDP2017, however it was finalised in advance in 2019.</i>	EBRD
D4.4B_RAW	Radioactive waste processing and transportation to the repository implemented by the Recipient	The project is aimed at processing of radioactive waste produced during the implementation of the project D4.4B “Dismantling of Systems in V1 NPP Controlled Area – Part 1” and its transport to the National Radwaste Repository in Mochovce (implemented by the Recipient - JAVYS). Disposal of radioactive waste shall be funded from the Slovak national sources.	EBRD

Project ID	Project Name	Description	Entrusted entity
D4.4C_RAW	D4.4C.02 Subproject Radioactive waste processing D4.4C.03 Subproject Transport to and disposal at the repository	The project is aimed at processing of radioactive waste produced during the implementation of the subproject D4.4C.01 “Dismantling of systems in V1 NPP controlled area - Part 2, D4.4C.01 Subproject” and its transport to and disposal at the National Radwaste Repository in Mochovce (implemented by the Recipient - JAVYS).	SIEA
D4.7_RAW	D4.7.02 Subproject Radioactive waste processing D4.7.03 Subproject Transport to and disposal at the repository	The project is aimed at processing of radioactive waste produced during the implementation of the subproject D4.7.01 “Decontamination and demolition of V1 NPP buildings and site restoration, D4.7.01 Subproject” and its transport to and disposal at the National Radwaste Repository in Mochovce (implemented by the Recipient - JAVYS).	SIEA
D Projects	Plant Modifications		
D4.1	Modification of the plant and installation of new equipment	The objective of the project is to prepare the Reactor Building and the Auxiliary Building and if necessary also other buildings or external surfaces for the purposes of dismantling of V1 NPP systems and equipment and their subsequent decontamination and demolition. These modifications shall enable to minimise the time demandingness of the later implemented decommissioning works, minimise the collective doses, provide the continuity of the flow of materials from decommissioning and increase the capacities of transport routes.	EBRD
D Projects	Equipment Decontamination & Dismantling		

Project ID	Project Name	Description	Entrusted entity
D4.2	Dismantling of reactor coolant system large components	<p>The objective of the project is the full dismantling of:</p> <ul style="list-style-type: none"> • 2 reactors (VVER 400-230) of the V1 NPP consisting of pressure vessels, reactor's heads with upper blocks, reactor's internal structures and all 'internals' such as the core basket, upper and lower guide structures, in-core instrumentation, main fuel grid, etc. • All the components of the primary circuits: primary pipes, pumps, steam generators, main isolations valves, pressuriser, etc. • Other 'large components' associated to the reactors as the Reactor Shaft Protection Lid, the Annular Water Tank, etc. 	EBRD
D4.4B	Dismantling of systems in V1 NPP controlled area - Part 1	The objective of the project is dismantling, fragmentation, decontamination and transport of components and systems located in controlled area that are not essential for further activities during Decommissioning Stage II and subsequent sorting, and transport to the storage areas or processing facilities.	EBRD
D4.4C.01	Dismantling of systems in V1 NPP controlled area - Part 2, D4.4C.01 Subproject	The objective of the subproject is removal and fixation of sediments, pre-dismantling decontamination, dismantling, fragmentation, sorting, packaging and transport of components and systems located in the controlled area which are not included in other projects dealing with dismantling of equipment in the V1 NPP controlled area (D4.2 & D4.4B).	SIEA
D Projects	Demolition, Backfilling, Site Restoration, Final Survey & Site Release		

Project ID	Project Name	Description	Entrusted entity
D4.7.01*	Decontamination and demolition of V1 NPP buildings and site restoration, D4.7.01 Subproject *(including part of the scope of the project D6.2 “Final survey and site release”)	The objective of the subproject is to complete the process of V1 NPP decommissioning by modification of civil buildings and technological systems; dismantling of last equipment, systems or structures still located in the civil buildings; decontamination of contaminated building surfaces, structures, systems and technical equipment; demolition of civil buildings; backfilling, site restoration and carrying out the final survey so that it is possible to release the V1 NPP site from administrative control of the Slovak regulatory bodies.	SIEA

2.1. Significant milestones 2021-2022

The table as follows provides an overview of milestones to achieve in the 2 years. It includes the drafting and submission of all grant agreements or equivalent, essential deliverables important for the continuation of the programme and procurement procedures of higher value.

Project ID	Project Name	Milestone	Date
D4.7.01	Decontamination and demolition of V1 NPP buildings and site restoration, D4.7.01 Subproject	Completion of pre-qualification phase of tender process	2021 H2 [12/2021]
D4.7.01	Decontamination and demolition of V1 NPP buildings and site restoration, D4.7.01 Subproject	Completion of technical and financial evaluation of the tenders and award of the contract with selected contractor	2022 H2 [09/2022]
D4.2_RAW	Radioactive waste processing, transport to and disposal at the repository implemented by the Recipient	Request for Grant allocation	2021 H2
D4.4C.02 (RAW) 1 st stage	Radioactive waste processing, transport to and disposal at the repository implemented by the Recipient	Request for Grant allocation	2021 H2

D4.4C.02 (RAW) 2 nd stage	Radioactive waste processing, transport to and disposal at the repository implemented by the Recipient	Request for Grant allocation	2022 H2
D0	Implementation of the decommissioning programme using the human resources available at Bohunice V1 Nuclear Power Plant (years 2022 and 2023)	Request for Grant allocation	2021 H2
D4.2	Dismantling of reactor coolant system large components	Complete dismantling, fragmentation and material management of all Steam Generators (12 pcs)	2022 H2 [11/2022]
D4.2	Dismantling of reactor coolant system large components	Complete Reactor Internal Structures dismantling, fragmentation and material management	2022 H1 [03/2022]
D4.2	Dismantling of reactor coolant system large components	Complete Reactor Pressure Vessel (2 pcs) dismantling, fragmentation and material management	2022 H1 [05/2022]
D4.2	Dismantling of reactor coolant system large components	Complete Annual water Tank (2pcs) dismantling, fragmentation and material management	2021 H2 [11/2021]
D4.2	Dismantling of reactor coolant system large components	Complete dismantling and fragmentation of the Active Water Treatment System (2 units) and material management	2022 H2 [10/2022]

3. DISSEMINATION OF KNOWLEDGE

JAVYS (which is the company leading the decommissioning activities in Bohunice), shared its experience in preparation of the technical specification within the Kozloduy programme's Project 55-1 "Support in the preparation of the reactor building for the decontamination of the primary circuit of KNPP Units 1-4". The main conclusion of JAVYS experts was that the technology used at Bohunice V1 NPP is fully transferable and appropriate for application at Kozloduy NPP. Consequently, the contract for the Project No. 55-2 "*The transfer of equipment, related requirements and associated services for the decontamination of the primary circuits in Kozloduy NPP Units 1 to 4*" was concluded in 11/2020 between JAVYS and "SERAW" (State Enterprise Radioactive Waste, Kozloduy, Bulgaria) in order to transfer knowledge previously matured.

In the future, exchange of knowledge and best practices in the field of decommissioning of nuclear facilities between three programmes Bohunice, Ignalina and Kozloduy will continue during the trilateral knowledge-exchange seminars to be hosted by Bulgaria and Lithuania.

Finally, as of 2021 a specific knowledge product will be developed each year by the Bohunice site in order to share knowledge matured in the past years. A Knowledge Product is a tangible output (document, service, event, etc.) of prepared knowledge that enables action of selected users.

For the purpose, a process aiming at identifying, managing, and sharing knowledge efficiently and routinely in the frame of the NDAP will be defined and shared with NDAP sites. It will describe the steps toward the development and sharing of relevant, actionable, impactful, and valuable knowledge products for EU stakeholders, focusing on decommissioning operators and other EU stakeholders as secondary targets. It will support the collection and sharing of a wide range of knowledge experiences on decommissioning and waste management governance issues, managerial best practices, and technological challenges, with a view to develop potential EU synergies. It will also provide tools and guidance for effective implementation in Ignalina (INPP), Kozloduy (KNPP) and Bohunice NPPs (BNPP). The process will be divided in 6 steps:

Step 1: ACQUIRE Identification and capture of Knowledge Inputs. The first step consists of the identification and capture of experiences, lessons learned and project feedback, using the existing channels and sources at the sites and new channel, such as the Knowledge Capture Sessions.

Step 2: CATEGORISE Categorisation of Knowledge Inputs. Inputs collected in Step 1 are categorised using the specific criteria, scoring methodology and tools. Existing methods in place to classify knowledge, like criticality analysis, may serve as a basis to assign scores based on the new criteria.

Step 3: STORE Record and Storage Knowledge Inputs. All inputs are stored on the current document system of each plant as usual. Selected, sharable inputs are documented and uploaded to the EC Knowledge Input Matrix.

Step 4: DEVELOP Development of Knowledge Products. This step focuses on the selection and development of knowledge products, using the inputs collected and categorised in the previous steps and the tools and guidance provided.

Step 5: SHARE Sharing and monitoring of Knowledge Products. Once developed, Knowledge Products are documented and monitored using the platform Knowledge Product Matrix.

Step 6: IMPROVE Continuous improvement & Sustainability of the process. Feedback from knowledge product users is gather-using formats defined. Value is measured and recorded in the EC Knowledge Product Matrix, and feedback is used to update process guidance and training to improve future products.

In 2021, the knowledge product to develop will be the ‘V1 NPP Conceptual Decommissioning Plan and what was next’. The product will provide opportunity to end users to gain knowledge about initial projects set-up/planning/costing/licensing of nuclear facility decommissioning and could be used at all levels of management. The knowledge product to be developed in 2022 will be decided on the basis of the experience acquired in 2021.

As the EC JRC is “Chef de File” for the specific decommissioning knowledge management objective, the process will be developed in close cooperation with the JRC and in line with the content of their Work Programme.

4. FINANCIAL IMPLEMENTATION

(thousands EUR)

Bohunice	Actual commitments or payments			
	Before 2014	MFF 2014-2020	2021	2022
Source of Funding				
COM to BIDSF	612 024	30 320	0	0
Others to BIDSF (cumul.)	11 428	11 854		
COM to SIEA		194 790	27 420	0
BIDSF to JAVYS	364 520	106 993	19 300 **	**
BIDSF out DP	189 450	-6 436	-6 644	690
SIEA to JAVYS		185 659	7 240	
SIEA out DP		1 312	623	623
NNF to JAVYS	30 775	114 806	21 877	23 216
SB to JAVYS***	N/A	N/A	N/A	N/A
JAVYS	91 240	3 833	317	485

** to be specified according to the future availability of BIDSF fund for Project D4.2_RAW (2021-2022).

*** The funds are not allocated to JAVYS directly from the state budget, but exclusively through the National Nuclear Fund.

COM to BIDSF: European Commission Delegation Agreements with BIDSF.

Others to BIDSF: before 2014 contributions from other donors to BIDSF, after 2014 interests accrued on BIDSF (cumulative).

COM to SIEA: European Commission Transfer of Funds Agreements with SIEA.

BIDSF to JAVYS: Grant Agreements within the decommissioning window.

BIDSF out DP: before 2014 Grant Agreements within the energy window, after 2014 administrative and other costs.

SIEA to JAVYS: Projects within the decommissioning window.

SIEA out DP: administrative and other costs.

NNF to JAVYS: National Nuclear Fund payments for activities within the DDP.

SB to JAVYS: State Budget payments for activities within the DDP.

JAVYS: JAVYS own resources payments for activities within the DDP.

ID	Denomination	Before 2021	2021 H1	2021 H2	2022 H1	2022 H2	2023	2024	2025	Budget at Completion
D19	Upgrade and Completion of the PMU Hardware Equipment	253 050 €								253 050 €
D2	Decontamination of the Primary Circuit	2 570 085 €								2 570 085 €
D2_RAW	Radioactive waste processing, transport to and disposal at the repository implemented by the Recipient (exclusively related to D2)	2 159 311 €								2 159 311 €
D2.1	Decontamination of Spent Fuel Pools and Other Contaminated Tanks in the V1 NPP – Part 1	1 230 385 €								1 230 385 €
D2.1_RAW	Decontamination of Spent Fuel Pools and Other Contaminated Tanks in the V1 NPP – Part 1	1 762 470 €								1 762 470 €
D2-A	Decontamination of the Primary Circuit - II. Stage	4 078 741 €								4 078 741 €
D2-A_RAW	Radioactive waste processing, transport to and disposal at the repository implemented by the Recipient (exclusively related to D2-A)	8 486 256 €								8 486 256 €
D3.1A	Dismantling and demolition of V1 NPP external buildings – Phase 1	974 949 €								974 949 €
D3.1B	Dismantling and demolition of V1 NPP cooling towers	9 991 038 €								9 991 038 €
D3.2	Dismantling of Outdoor Not Contaminated Facilities and Objects	778 169 €								778 169 €
D3.3	Dismantling of Electric Power Supply Systems	2 221 260 €								2 221 260 €
D3.4	Diesel Group Dismantling	784 037 €								784 037 €
D4.1	Modification of the Plant and Installation of New Equipment	9 985 612 €								9 985 612 €
D4.2	Dismantling of reactor coolant system large components	107 997 613 €	0 €	5 375 288 €	10 828 665 €	12 994 397 €				137 195 963 €
D4.2 (national co-financing)	Dismantling of reactor coolant system large components	6 651 608 €	0 €	400 000 €	0 €	0 €	0 €	0 €	0 €	7 051 608 €
D4.2_RAW (national co-financing)	Dismantling of reactor coolant system large components	31 026 398 €	6 123 631 €	6 123 631 €	6 123 631 €	6 123 631 €	12 247 262 €	12 247 262 €	1 632 968 €	81 648 417 €
D4.3A	Dismantling of Insulation in the V1 NPP Controlled Area	961 673 €								961 673 €
D4.3A_RAW	Radioactive waste processing, transport to and disposal at the repository implemented by the Recipient (exclusively related to D4.3A)	4 079 104 €	40 781 €	40 781 €	40 781 €	40 781 €	81 562 €			4 323 791 €
D4.4A	Auxiliary Buildings System Removal – Stage 1	1 483 321 €								1 483 321 €
D4.4A_RAW	Radioactive waste processing, transport to and disposal at the repository implemented by the Recipient (exclusively related to D4.4A)	1 054 275 €	181 591 €	181 591 €						1 417 459 €
D4.4A1	Modification of Facilities in the AKOBOJE System	158 701 €								158 701 €
D4.4B	Dismantling of Systems in V1 NPP Controlled Area – Part 1	5 298 267 €	936 693 €	0 €						6 234 961 €
D4.4B_RAW	Radioactive waste processing, transport to and disposal at the repository implemented by the Recipient (exclusively related to D4.4B)	13 249 148 €								13 249 148 €
D4.4B_RAW (national co-financing: Disposal at the National Repository Mochovce)	Radioactive waste processing, transport to and disposal at the repository implemented by the Recipient (exclusively related to D4.4B)	470 875 €								470 875 €
D4.4C	Dismantling of systems in V1 NPP controlled area - Part 2	10 226 042 €	1 458 523 €	1 458 523 €	5 425 511 €	5 425 512 €	8 920 221 €			32 914 332 €

ID	Denomination	Before 2021	2021 H1	2021 H2	2022 H1	2022 H2	2023	2024	2025	Budget at Completion
D4.4C_RAW (national co-financing)	Radioactive waste processing, transport to and disposal at the repository implemented by the Recipient (exclusively related to D4.4C)	11 892 215 €	2 548 332 €	2 548 332 €	2 548 332 €	2 548 332 €	5 096 664 €	5 096 664 €	1 698 888 €	33 977 758 €
D4.7	Decontamination and demolition of V1 NPP buildings and site restoration	26 112 304 €	13 056 152 €	13 056 152 €	13 145 108 €	13 145 108 €	26 468 129 €	33 761 182 €	29 172 215 €	167 916 351 €
D4.7_RAW (national co-financing)	Radioactive waste processing, transport to and disposal at the repository implemented by the Recipient (exclusively related to D4.7)	2 439 959 €	4 232 747 €	4 232 747 €	4 232 746 €	4 232 747 €	13 320 792 €	13 320 792 €	12 499 266 €	58 511 794 €
D6.2	Final survey and site release	0 €			90 081 €	90 082 €	900 816 €	1 261 143 €	1 261 143 €	3 603 265 €
D7.1	Feasibility Study for the Management of V1 NPP Primary Circuit Components	797 228 €								797 228 €
DMS	Documentation management system	165 446 €	11 069 €	11 069 €	1 660 €	1 661 €				190 904 €
	Funds administration NATIONAL AGENCY	2 377 608 €	288 982 €	288 982 €	288 982 €	288 982 €	577 964 €	577 964 €	577 964 €	5 267 428 €
	Funds administration EBRD	13 077 404 €	385 000 €	385 000 €	385 000 €	385 000 €	770 000 €	770 000 €	770 000 €	16 927 404 €
D0	JAVYS overheads (Project D0 financed from the EU sources)	71 822 698 €	4 000 000 €	4 200 000 €	4 300 000 €	4 300 000 €	8 200 000 €	8 200 000 €	8 000 000 €	113 022 698 €
	JAVYS overheads (management, support, waste processing, storage and disposal, site infrastructure operation, ...)	239 337 823 €	9 126 968 €	9 126 968 €	8 937 343 €	8 937 344 €	13 633 487 €	8 835 081 €	4 668 685 €	302 603 699 €
Risk	Included in each project									
Inflation	Included in each project									
TOTAL		787 662 491 €	44 42 520 €	49 81 115 €	58 138 509 €	60 304 248 €	93 42 346 €	84 70 088 €	60 81 129 €	1237 622 447 €

6. STAFFING PLAN

	Category	Actual							Planned (year average)	
		2014	2015	2016	2017	2018	2019	2020	2021	2022
01	Pre-decommissioning actions	20	N/A	N/A						
02	Facility shutdown activities	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
03	Additional activities for safe enclosure or entombment	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
04	Dismantling activities within the controlled area	10	12	12	12	12	12	12	12	12
05	Waste processing, storage and disposal *	25	27	27	27	27	29	29	29	29
06	Site infrastructure and operation *	70	75	75	74	75	76	76	76	76
07	Conventional dismantling and demolition and site restoration	20	23	23	23	25	26	26	26	26
08	Project management, engineering and support	110	116	116	116	118	120	120	119	119
09	Research and development	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10	Fuel and nuclear material *	17	19	19	19	19	19	19	19	19
11	Other	8	9	9	9	9	9	9	9	9
	TOTAL	280	281	281	280	285	291	291	290	290

Note: Staff figures in the table represent staff financed from the EU sources, the sources of the National Nuclear Fund and own sources of company JAVYS.

* Staff executing these activities represents full-time equivalent of employees whose salaries are NOT financed from D0 Project but, rather, are financed from the EU sources via unit prices (unit prices for processing of radioactive waste). These categories of staff were incorporated into this table with the aim to provide an overall picture of the Staffing Plan.

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