Nuclear Decommissioning Assistance Programme

Bohunice Programme

Work Programme 2021-2022

Annex 1

1. INTRODUCTION

On the basis of the objectives given in the Council Regulation (Euratom) 2021/100, this work programme contains the actions to be financed and the budget breakdown for years 2021-2022 as follows:

a) for grants (implemented under direct management) (point 2),

b) for prizes (implemented under direct management (point 3),

c) for procurement (implemented under direct management) (point 4),

d) for actions implemented under indirect management (point 5),

e) for contributions to trust funds (point 6),

f) for financial instruments (point 7),

g) for contributions to blending facilities (point 8),

h) for other actions or expenditure (point 9).

1.1. Legal basis

Article 9 of Council Regulation (Euratom) 2021/100.

Brussels,9.12.2021

1.2. Budget lines

The budget line for the Bohunice programme is 12.040200.

1.3. Objectives pursued

The Programme aims at assisting Slovakia in implementing the Bohunice decommissioning programme, including management and storage of radioactive waste in line with the identified needs of the respective decommissioning plan and on managing the safety challenges thereof; whilst the Programme is creating knowledge in the nuclear decommissioning process and in the radioactive waste management resulting from the decommissioning activities.

The major safety challenges to be addressed by the Bohunice programme are:

(a) Dismantling and decontamination of the reactors' buildings and components in accordance with the decommissioning plans;

(b) Safe management of the decommissioning and radioactive waste in line with the identified needs of the respective decommissioning plan, activated materials and dismantling materials including their decontamination up to interim storage or to disposal (depending on the waste category), including the completion of the waste and material management infrastructure where necessary;

(c) Continue downgrading of radiological hazards.

1.4. Expected results

The beneficiary has introduced an updated schedule for the Bohunice V1 decommissioning programme modifying the end date established in the detailed decommissioning plan of 2014 (December 2025). The current schedule sets the programme completion to December 2027, within the current MFF. There are no additional budget commitment for the EU, and it minimises the quantity of radioactive waste to be disposed of. The targets date and values for the performance indicators in this Annex have been established accordingly.

Specific objective:

Dismantling and decontamination of the reactors' buildings and components in accordance with the decommissioning plan.

Performance indicators (figures are cumulative)	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**
Metal dismantled (tonne)	2 103	3 755	6 889	10 272	18 451	31 792	31 792
Concrete removed (tonne)	490	1 296	1 296	1 296	58 200	190 974	190 974
EVM* Planned Value (EUR)**	30 607 018	57 914 090	80 605 395	95 930 585	124 397 218	258 178 941	276 810 807

*Earned Value Management.

**Planned value including contingency.

Projects related to this Specific Objective:

- D4 1 Modification of the Plant and Installation of New Equipment.
- D4 2 Dismantling of Reactor Coolant System Large Components.
- D4 4B Dismantling of Systems in V1 NPP Controlled Area – Part 1.
- D4 4C 01 Dismantling of Systems in V1 NPP Controlled Area – Part 2.
- D4 7 01 Decontamination and Demolition of V1 NPP Buildings and Site Restoration (D6.2 included).

Specific objective:

Safe management of the decommissioning and radioactive waste and of activated materials and dismantling materials, including their decontamination up to interim storage or to disposal (depending on the waste category), as well as the completion of the waste management infrastructure where necessary. This objective has to be accomplished in accordance with the decommissioning plan.

Performance indicators (figures are cumulative)	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**
Free release of materials (tonne)	1 619	2 745	5 565	8 710	72 756	216 530	216 530
VLLW disposed (tonne)*	387	999	1 017	1 035	2 389	5 373	5 373
LLW disposed (tonne)*	285	552	1 002	1 498	1 759	1 943	1 943
ILW stored (tonne)*	146	172	172	172	172	172	172
EVM* Planned Value (EUR)**	10 838 276	24 605 654	39 912 304	57 332 978	66 619 170	75 753 028	77 060 316

*Earned Value Management.

** Planned value including contingency.

Projects related to this Specific Objective:

- D2-A_R - Radioactive waste processing, transport to and disposal at the repository implemented by the Recipient (exclusively related to D2-A).
- D4.1_R - Modification of the Plant and Installation of New Equipment.
- D4 2_R - Dismantling of reactor coolant system large components.
- D4 4A_R - Radioactive waste processing, transport to and disposal at the repository implemented by the Recipient (exclusively related to D4 4A).
- D4 4B_R - Radioactive waste processing, transport to and disposal at the repository implemented by the Recipient (exclusively related to D4 4B).
- D4 4C_R - Radioactive waste processing, transport to and disposal at the repository implemented by the Recipient (exclusively related to D4 4C).
- D4 7_R - Radioactive waste processing, transport to and disposal at the repository implemented by the Recipient (exclusively related to D4 7).
- C8-B2 - Temporary storage of materials from V1 NPP decommissioning.

Specific objective:

Downgrading of radiological hazards. The release of the facilities from regulatory control up to corresponding regulatory free-release levels is due to take place by the end of decommissioning.

In general, radiological hazards represent the amount of radioactivity (contained in contaminated and activated material) that is found in the relevant nuclear power plant. In the case of V1 NPP, a substantial part of this activity is contained in contaminated and

activated materials in equipment and systems. Therefore, gradually, as the dismantling of V1 NPP equipment and systems is carried out within individual projects (with subsequent processing of material from these projects), the radiological hazard gradually decreases. The decrease is proportional to the value of the removed radioactivity that was contained in the dismantled equipment and systems. The table below shows the plan for reducing - the residual activity contained in the equipment and systems after the completion of individual dismantling projects.

Performance indicators (figures are residual)	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**
Residual activity (Bq)	$1.34\ 10^{17}$	$1.34\ 10^{17}$	$1.20\ 10^{10}$	$2.85\ 10^{8}$	$2.85\ 10^{8}$	$2.85\ 10^{8}$	RRM*

RRM*: residual radioactive material equal to or lower than the permitted limits specified in Act No. 87/2018 (Radiation Protection Act).

Specific objective:

Decommissioning of Nuclear Facilities and Management of Radioactive Waste Knowledge dissemination.

Performance indicators (figures are cumulative)	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**
Knowledge products created	1	2	3	4	5	6	7

The process of creation of the knowledge products is described in Annex 3, Section 3 “Dissemination of Knowledge”.

2. GRANTS

The budgetary envelope reserved for grants under this work programme is EUR 0.

3. PRIZES

The budgetary envelope reserved for contests under this work programme is EUR 0.

4. PROCUREMENT

The budgetary envelope reserved for procurement contracts under this work programme is:

- EUR 80 000 in 2021
- EUR 0 in 2022

The contracts envisaged are related to the technical and administrative assistance for the implementation of the Programme, such as preparatory, monitoring, control, audit and evaluation activities including corporate information technology systems.

5. ACTIONS IMPLEMENTED IN INDIRECT MANAGEMENT

The budgetary amount to implement under indirect management is EUR 27 420 000 in 2021 and EUR 0 in 2022.

Entity entrusted with the implementation

The budgetary envelope reserved for indirect management by the European Bank for Reconstruction and Development (EBRD) through the Bohunice International Decommissioning Support Fund under this work programme is:

- EUR 0 in 2021
- EUR 0 in 2022

The budgetary envelope reserved for indirect management by the Slovak Innovation and Energy Agency (SIEA) under this work programme is:

- EUR 27 420 000 in 2021
- EUR 0 in 2022

Description

A detailed description of the **decommissioning programme** was submitted by the Programme Coordinator of the Bohunice Programme and is provided in Annex 3.

Activities included within the decommissioning programme in Annex 3 should be identified within the boundaries defined by the decommissioning plan submitted by Slovakia in accordance with Council Regulation (EU) 1368/2013.

The entrusted tasks are framed into the work programme hereby adopted. The budgetary envelope for the implementation of the entrusted tasks tops up previously allocated funds to cover longer-term commitments in the framework of the decommissioning plans of Bohunice V1 Nuclear Power Plant.

6. TRUST FUNDS

The budgetary envelope reserved for trust funds under this work programme is EUR 0.

7. FINANCIAL INSTRUMENTS IMPLEMENTED IN DIRECT OR INDIRECT MANAGEMENT

The budgetary envelope reserved for financial instruments under this work programme is EUR 0.

8. CONTRIBUTIONS TO BLENDING FACILITIES

The budgetary envelope reserved for contributions to blending facilities under this work programme is EUR 0.

9. OTHER ACTIONS OR EXPENDITURE

The budgetary envelope reserved for other actions or expenditure under this work programme is EUR 0.

Kadri SIMSON
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