

Nuclear Decommissioning Assistance Programme

Ignalina Programme

Work Programme 2021-2022

Annex 1

1. INTRODUCTION

On the basis of the objectives given in the Council Regulation (EU) 2021/101, 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 (EU) 2021/101.

Brussels, 16.12.2021

1.2. Budget lines

Budget line 12.030100 for the Ignalina programme.

1.3. Objectives pursued

The general objective of the Programme is to assist Lithuania in implementing Ignalina nuclear power plant decommissioning, with specific emphasis on managing the safety challenges of the decommissioning of the Ignalina nuclear power plant, whilst the Programme is creating knowledge in the nuclear decommissioning process and in the radioactive waste management resulting from the decommissioning activities.

In the financing period starting as of 2021, the Programme will assist with activities included in the decommissioning plan submitted by Lithuania in accordance with Regulation (EU) No 1369/2013, in particular the following:

- a) dismantling and decontamination of the reactor shafts' top and bottom zones and equipment in accordance with the decommissioning plan;
- b) the design for the dismantling and decontamination of the reactor shafts' central zones (graphite cores);
- c) safe management of the decommissioning and legacy waste up to interim storage or to disposal (depending on the waste category), including the completion of the waste management infrastructure where necessary. This objective is to be accomplished in accordance with the decommissioning plan;
- d) implementation of the building demolition programme;
- e) obtaining the decommissioning licence once Unit 1 and Unit 2 of the Ignalina Nuclear Power Plant are defueled;
- f) downgrading of radiological hazards.

1.4. Expected results

Specific objective:

Dismantling and decontamination of the reactor shafts top and bottom zones and equipment in accordance with the decommissioning plan.

Performance indicators (figures are cumulative)	2021	2022	2023	2024	2025	2026	2027	2028	2029
Removal of material – metal (tonne) *	402	852	1 462	2 385	3 218	3 685	4 153	4 341	-
Removal of material – concrete (tonne) **	-	-	-	-	-	-	-	-	-
EVM Earned Value (EUR million) ***	1.680	4.111	5.722	6.873	8.019	9.165	10.311	10.636	-

* these numbers include dismantling of Unit 1 and Unit 2 reactor components in the upper and lower parts of the shafts (zones R1 and R2), cumulative values.

** dismantling in the upper and lower part of the reactor shafts does not envisage concrete dismantling (except of a tiny amounts of construction waste resulting from preparatory works).

***Earned Value Management - Planned value (FDP baseline) of the projects (P.2.1.2101 and P.2.1.2102 combined) for Zones R1 and R2 dismantling in Unit 1 and Unit 2, cumulative values.

Specific objective:

Design for the dismantling and decontamination of the reactor shafts central zones (graphite cores).

Performance indicators (figures are cumulative)	2021	2022	2023	2024	2025	2026	2027
EVM Earned Value (EUR million) *	1.943	3.830	5.410	14.310	26.054	29.919	-

* Planned value (FDP baseline) of the dedicated project (P.2.1.2103), cumulative values (changes related to project roadmap ongoing revision not considered).

Specific objective:

Safe management of the decommissioning and legacy waste up to interim storage or to disposal (depending on the waste category), including the completion of the waste management infrastructure where necessary.

Performance indicators (figures are cumulative)	2021	2022	2023	2024	2025	2026	2027	2028	2029
Very low level waste disposed (m3) *	1 787	3 911	5 429	7 603	10 379	13 155	16 610	21 685	27 410
Low and intermediate level waste stored (m3) **	479	990	1 551	2 227	2 967	3 707	4 785	5 771	7 396
EVM Earned Value (EUR million)***	16.675	32.887	50.817	68.902	87.319	105.335	123.801	141.692	158.004

Performance indicators (figures are cumulative)	2030	2031	2032	2033	2034	2035	2036	2037	2038
Very low level waste disposed (m3)*	29 020	30 867	32 714	34 561	36 408	38 055	39 702	41 349	42 996
Low and intermediate level waste stored (m3)**	9 202	11 194	13 186	15 178	16 920	-	-	-	-
EVM Earned Value (EUR million)***	173.847	190.140	206.043	222.410	236.868	248.001	256.970	266.012	274.347

* these numbers represents volume of the waste (pure volume, without packaging) prepared for Landfill repository (according to the national regulations for radioactive waste management, this waste is classified as Class A - very low level short-lived waste). Cummulative value starting from year 2021 (waste accumulated until year 2021 not included).

** these numbers represents volume of the waste (pure volume, without packages) prepared for placement into Near Surface Repository (according to the national regulations for radioactive waste management, this waste is classified as Class B+C - low and intermediate level short-lived waste (managed as a single waste class) and long lived waste prepared for interim storage (class D, E) together. Cummulative value starting from year 2021 (waste accumulated until year 2021 not included).

*** Planned value ((FDP baseline) for radioactive waste management programme P4 except activities related to non-radioactive waste management. Infrastructure development (i.e. construction of NSR) is not included. Cummulative values starting from 2021.

General explanatory note - waste disposed is a derivative which only conditionally represents waste management activities. The real goal is to efficiently manage all the initial amount of waste, but not to produce a certain amount of waste for disposal (ideally it should be zero, but due to economical and technical circumstances a certain amount is unavoidable). INPP has built a landfill repository for class A waste and near surface repository construction (for class B+C waste) due to begin, and when managing waste, it is important to manage it in such a way that the volume of packages for repositories does not exceed their design capacities.

Specific objective:

Implementation of the Building Demolition Programme.

Performance indicators (figures are cumulative)	2021	2022	2023	2024	2025	2026	2027	2028	2029
Buildings demolished (Units)*	4	8	22	23	26	44	47	48	53
EVM Earned Value (EUR million)	1.768	5.270	8.111	12.991	17.300	21.648	30.218	52.342	72.374

Performance indicators (figures are cumulative)	2030	2031	2032	2033	2034	2035	2036	2037	2038
Buildings demolished (Units)*	54	63	70	71	79	94	94	133	144
EVM Earned Value (EUR million)	88.004	96.831	105.731	110.226	116.728	137.816	187.896	228.736	236.486

* Cummulative values starting from 2021 (buildings demolished before 2021 and associated EV not included).

Specific objective:

Obtaining the decommissioning license once both units are defueled.

Performance indicators (figures are cumulative)	2023	2024
Decommissioning license unit 1 and 2	X	-

Specific objective:

Downgrading of radiological hazards.

In the context of the decommissioning the radiological hazard is posed by radioactive materials (source term) on decommissioning site. Gradual reduction of untreated radioactive materials gradually reduces radiological hazard, therefore amount (represented in volume) of untreated materials (primary volume of the waste) is used as an indicator for a given objective.

Performance indicators	2021	2022	2023	2024	2025	2026	2027	2028	2029
Volume of untreated radioactive waste, m3	57 650	55 015	52 936	50 086	46 570	43 054	38 522	32 461	25 111

Performance indicators	2030	2031	2032	2033	2034	2035	2036	2037	2038
Volume of untreated radioactive waste, m3	21 694	17 855	14 016	10 177	6 588	4 941	3 294	1 647	0

All waste classes are considered except spent nuclear fuel (very specific type of waste, that shouldn't be mixed with others), bituminated waste (not intended to be treated, but their interim storage may be converted into repository) and contaminated concrete (its quantity is known only very approximately and its management plans are still too tentative).

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	2028	2029
Knowledge products created	1	2	3	4	5	6	7	8	9

Performance indicators (figures are cumulative)	2030	2031	2032	2033	2034	2035	2036	2037	2038
Knowledge products created	10	11	12	13	14	15	16	17	18

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

METHODS OF IMPLEMENTATION

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 60 000 in 2021
- EUR 320 000 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

Entity entrusted with the implementation

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

- EUR 10 000 000 in 2021
- EUR 0 in 2022

The budgetary envelope reserved for indirect management by the Central Project Management Agency (CPMA) in Lithuania under this work programme is:

- EUR 62 440 000 in 2021
- EUR 98 580 000 in 2022

Detailed Implementation Procedures

Annex 2 establishes detailed implementation procedures for the implementation of the actions in indirect management.

Description

A detailed description of the **decommissioning programme** was submitted by the Programme Coordinator of the Ignalina 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 Lithuania in accordance with Council Regulation (EU) 1369/2013.

The entrusted tasks are framed into the present work programme. 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 plan of Ignalina 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.