

**IMPACT ASSESSMENT AT THE LEVEL OF STRATEGIC OBJECTIVES  
AND AT THE LEVEL OF TASKS AND MEASURES UNDER THE  
STRATEGIC OBJECTIVES IN THE ACTION PLAN**

**9.1. Impact assessment at the Strategic objectives level**

Environmental impact assessment of the most important strategic objectives in the draft updated Strategy, which are compliant with the requirements of Council Directive 2011/70/Euratom, has been carried out for the following elements and factors of the environment:

**Air**

**Table 1 - Air – Expected Impacts of the Strategic Objectives**

	Strategic Objective	Analysis and Description of the Expected Impact	Aspect	
			Radiological	Non-Radiological
1.	Minimising the time for SNF interim storage, taking into account that it is not an alternative to the final stage of SNF management	Minimising the time for SNF interim storage will minimise the risk of release of radionuclides in gaseous or aerosol form to the environment and the risk of increase in the gamma radiation background in the area. The expected impact will be of low positive significance. Not relevant to ambient air quality (AAQ) in non-radiological terms.	+1	0
2.	Processing of the entire amount of SNF generated from WWER-440 and WWER-1000 and disposal in the DGR of the vitrified HLW and other RAW generated during processing and returned to Bulgaria	The implementation of the strategic objective will produce an impact with low positive significance, minimising the risk of radioactive air pollution and the risk of increase in the gamma radiation background in the area. In non-radiological terms, a low significance impact is possible – during transportation.	+1	-1
3.	Permanent reduction of the SNF quantities stored on the Kozloduy NPP site, through an average annual shipment of at least 77 t of heavy metal (HM) for long-term storage and processing abroad	The permanent reduction of the SNF quantities stored on the Kozloduy NPP site is associated with a reduced likelihood of radiological release to the atmosphere of radionuclides in gaseous or aerosol form and increase in the gamma background. This leads to low significance positive impact. In non-radiological terms, a low significance negative impact is possible – with extremely low significance during the transportation of SNF.	+1	-1
4.	Preparation of a long-term plan for construction of a repository for interim storage of returned vitrified HLW and other RAW from SNF processing	This strategic objective is not directly related to AAQ in radiological terms, but it is indirectly related to the development of a clear and long-term plan for the management of SNF and minimising the risk of increase of atmospheric radioactivity and the gamma radiation background in the area. The expected impact has low positive significance. There is no relation to AAQ in non-radiological terms.	+1	0
5.	Commissioning of Stage 1 of the NDF by the end of 2025	The implementation of the strategic objective is related to positive impacts with medium to high significance, which result from minimising the risk of changes in atmospheric radioactivity and gamma radiation background. No impact is expected.	+2	0
6.	Construction in the mid-term of Stages 2 and 3 of the NDF	The implementation of the strategic objective is related to positive impacts with medium to high significance, which result from minimising the risk of changes in atmospheric radioactivity and gamma radiation background. No relation to AAQ in non-radiological terms.	+2	0

	Strategic Objective	Analysis and Description of the Expected Impact	Aspect	
			Radiological	Non-Radiological
7.	In the long-term, design and construct a DGR	The implementation of the strategic objective is related to positive impacts with medium to high significance, which result from minimising the risk of changes in atmospheric radioactivity and gamma radiation background. Low significance impact – during construction and transportation.	+2	=/-1
8.	Providing financial resources for the construction of a DGR through the establishment of a new dedicated fund	The strategic objectives will have a low significance positive impact on AAQ in radiological terms, as they will support the process of treatment of generated waste from SNF in compliance with regulatory requirements and best available techniques, thus minimising the risk of an increase in atmospheric radioactivity and the gamma radiation background in the affected areas. No relation to AAQ in non-radiological terms.	+1	0
9.	Providing and maintaining sustainable financial and human resources for ensuring the necessary expertise and skills, including for carrying out the research and development required for the SNF and RAW management and regulation	The strategic objectives will have a low significance positive impact on AAQ in radiological terms, as they will support the process of treatment of generated waste from SNF in compliance with regulatory requirements and best available techniques, thus minimising the risk of an increase in atmospheric radioactivity and the gamma radiation background in the affected areas. No relation to AAQ in non-radiological terms.	+1	0
10.	Pursuing a policy of openness and transparency and involving the public in public hearings and decision-making on the SNF and RAW management.	The strategic objectives will have a low significance positive impact on AAQ in radiological terms, as they will support the process of treatment of generated waste from SNF in compliance with regulatory requirements and best available techniques, thus minimising the risk of an increase in atmospheric radioactivity and the gamma radiation background in the affected areas. No relation to AAQ in non-radiological terms.	+1	0

## Climate

**Table 2 - Expected Impacts of the Strategic Objectives**

	Strategic Objective/Expected Impact	Analysis and Description of the Expected Impact	Impact Assessment
1.	Minimising the time for SNF interim storage, taking into account that it is not an alternative to the final stage of SNF management	The strategic objectives have a significant predictable positive impact on climate change as a result of the zero greenhouse gas emissions throughout the entire life cycle of nuclear energy and the management of SNF and RAW associated with it. The strategic objectives are an important factor to achieve the objectives of the European Green Deal.	<b>+2</b>
2.	Processing of the entire amount of SNF generated from WWER-440 and WWER-1000 and disposal in the DGR of the vitrified HLW and other RAW generated during processing and returned to Bulgaria		
3.	Permanent reduction of the SNF quantities stored on the Kozloduy NPP site, through an average annual shipment of at least 77 t of heavy metal (HM) for long-term storage and processing abroad		
4.	Preparation of a long-term plan for construction of a repository for interim storage of returned vitrified HLW and other RAW from SNF processing		
5.	Commissioning of Stage 1 of the NDF by the end of 2025		
6.	Construction in the mid-term of Stages 2 and 3 of the NDF		
7.	In the long-term, design and construct a DGR		
8.	Providing financial resources for the construction of a DGR through the establishment of a new dedicated fund		
9.	Providing and maintaining sustainable financial and human resources for ensuring the necessary expertise and skills, including for carrying out the research and development required for the SNF and RAW management and regulation		
10.	Pursuing a policy of openness and transparency and involving the public in public hearings and decision-making on the SNF and RAW management.		

## Water

### Surface Water

**Table 3 - Surface Water - Expected Impacts of the Strategic Objectives**

	Strategic Objective/Expected Impact	Analysis and Description of the Expected Impact	Aspect	
			Radiological	Non-Radiological
1.	Minimising the time for SNF interim storage, taking into account that it is not an alternative to the final stage of SNF management	<p>In radiological terms, an indirect and long-term positive impact is expected, resulting from minimising the time for SNF storage and reducing the possibility of surface water pollution with radionuclides. The impact will be both local, within the boundaries of the Kozloduy NPP site, and regional in the area around Kozloduy NPP.</p> <p>In non-radiological terms a positive impact can be expected resulting from a reduction in the required amount of water due the reduced time for SNF storage.</p>	+1	+1
2.	Processing of the entire amount of SNF generated from WWER-440 and WWER-1000 and disposal in the DGR of the vitrified HLW and other RAW generated during processing and returned to Bulgaria	<p>The lack of a detailed concept for the processing of the entire amount of SNF generated and disposal in the DGR does not allow for the assessment of the specific impact on surface water. The overall assessment in radiological terms is for a positive, long-term, and indirect impact due to limiting the potential for pollution of surface water with radionuclides and, hence, reducing the impact on water.</p> <p>No impact in non-radiological terms is expected.</p>	+1	0
3.	Permanent reduction of the SNF quantities stored on the Kozloduy NPP site, through an average annual shipment of at least 77 t of heavy metal (HM) for long-term storage and processing abroad	<p>In radiological terms, an indirect and long-term positive impact is expected, resulting from the reduction of the SNF quantities stored on the Kozloduy NPP site and limiting the potential for surface water pollution with radionuclides and, hence, reducing the impact on water. The impact will be both local, within the boundaries of the Kozloduy NPP site, and regional in the area surrounding Kozloduy NPP.</p> <p>No impact in non-radiological terms is expected, since the transportation of SNF will not affect surface water.</p>	+1	0
4.	Preparation of a long-term plan for construction of a repository for interim storage of returned vitrified HLW and other RAW	The strategic objective is related to a pre-design phase and the lack of information for the specific tasks does not allow for impact assessment to be carried out.	=	=

	Strategic Objective/Expected Impact	Analysis and Description of the Expected Impact	Aspect	
			Radiological	Non-Radiological
	from SNF processing			
5.	Commissioning of Stage 1 of the NDF by the end of 2025	<p>According to the EIAR of the NDF, a minor negative impact in non-radiological terms is expected during the construction of Stage 1 of the NDF. This impact will be short-term, temporary, and reversible.</p> <p>According to the description in the EIAR of the NDF, during operation no radiological or non-radiological impacts on water are expected.</p>	0	-1
6.	Construction in the mid-term of Stages 2 and 3 of the NDF	<p>According to the EIAR of the NDF, a minor negative impact in non-radiological terms is expected during the construction of Stages 2 and 3 of the NDF. This impact will be short-term, temporary, and reversible.</p> <p>According to the description in the EIAR of the NDF, during operation no radiological or non-radiological impacts on water are expected.</p>	0	-1
7.	In the long-term, design and construct a DGR	The lack of detail regarding the specific tasks and projects for the construction of a DGR do not allow for an impact assessment in radiological and non-radiological terms to be carried out at this stage.	=	=
8.	Providing financial resources for the construction of a DGR through the establishment of a new dedicated fund	Impact on water is not expected, as a new dedicated fund is going to be established (administrative measure).	0	0
9.	Providing and maintaining sustainable financial and human resources for ensuring the necessary expertise and skills, including for carrying out the research and development required for the SNF and RAW management and regulation	<p>The strategic objective includes entirely administrative and financial tasks, and hence no direct impact on surface water is expected.</p> <p>Indirect, long-term positive impact in radiological and non-radiological terms can be expected from ensuring human resources with the necessary expertise and skills for better management of SNF and RAW, which will lead to a reduction of their impact on surface water.</p>	+1	+1

	Strategic Objective/Expected Impact	Analysis and Description of the Expected Impact	Aspect	
			Radiological	Non-Radiological
10.	Pursuing a policy of openness and transparency and involving the public in public hearings and decision-making on the SNF and RAW management.	Due to the entirely administrative nature of the tasks, no direct impact on surface water is expected.  Indirect, long-term, secondary positive impact is expected from involving the public in public hearings and decision-making regarding SNF and RAW management, which would lead to better SNF and RAW management and, hence, to a reduction of impacts on the environment, incl. on surface water.	+1	+1

## Groundwater

**Table 4 - Groundwater - Expected Impacts of the Strategic Objectives**

	Strategic Objective/Expected Impact	Analysis and Description of the Expected Impact	Aspect	
			Radiological	Non-Radiological
1.	Minimising the time for SNF interim storage, taking into account that it is not an alternative to the final stage of SNF management	No impact on groundwater is expected from this strategic objective, as it has no relation to groundwater.	0	0
2.	Processing of the entire amount of SNF generated from WWER-440 and WWER-1000 and disposal in the DGR of the vitrified HLW and other RAW generated during processing and returned to Bulgaria	The lack of a detailed concept for the processing of the entire amount of SNF generated and disposal in the DGR does not allow for the assessment of the specific impact on groundwater.	=	=
3.	Permanent reduction of the SNF quantities stored on the Kozloduy NPP site, through an average annual shipment of at least 77 t of heavy metal (HM) for long-term storage and	An indirect and long-term positive impact is expected in radiological terms resulting from the reduction of the SNF quantities stored on the Kozloduy NPP site and from limiting the potential for groundwater pollution with radionuclides and hence reducing impact on water. The impact will be both local, within the	+1	0

	Strategic Objective/Expected Impact	Analysis and Description of the Expected Impact	Aspect	
			Radiological	Non-Radiological
	processing abroad	boundaries of the NPP Kozloduy site, and regional in the area around NPP Kozloduy.  No impact in non-radiological terms is expected since the transportation of RAW will not affect groundwater.		
4.	Preparation of a long-term plan for construction of a repository for interim storage of returned vitrified HLW and other RAW from SNF processing	The strategic objective refers to a pre-design phase and the lack of information of the specific tasks does not allow for an impact assessment to be carried out.	=	=
5.	Commissioning of Stage 1 of the NDF by the end of 2025	According to the EIAR of the NDF, no impact on groundwater is expected neither during construction, nor during operation or decommissioning of the NDF.	0	0
6.	Construction in the mid-term of Stages 2 and 3 of the NDF	According to the EIAR of the NDF, no impact on groundwater is expected neither during construction, nor during operation or decommissioning of the NDF.	0	0
7.	In the long-term, design and construct a DGR	Impact on groundwater is expected, but due to insufficient detail of the tasks (no detailed concept has been developed), an impact assessment cannot be carried out.	=	=
8.	Providing financial resources for the construction of a DGR through the establishment of a new dedicated fund	No impact on water is expected, as a new dedicated fund will be established (administrative measure).	0	0
9.	Providing and maintaining sustainable financial and human resources for ensuring the necessary expertise and skills, including for carrying out the research and development required for the SNF and RAW management and regulation	The strategic objective includes entirely administrative and financial tasks and hence no direct impact on groundwater is expected.  An indirect, long-term positive impact in radiological and non-radiological terms can be expected from providing human resources with the necessary expertise and skills for better management of SNF and RAW, which will lead to a reduction of their impact on groundwater.	+1	+1

	Strategic Objective/Expected Impact	Analysis and Description of the Expected Impact	Aspect	
			Radiological	Non-Radiological
10.	Pursuing a policy of openness and transparency and involving the public in public hearings and decision-making on the SNF and RAW management.	<p>Due to the entirely administrative nature of the tasks, no impact on groundwater is expected.</p> <p>An indirect, long-term secondary positive impact is expected from involving the public in public hearings and decision-making regarding SNF and RAW management, which would lead to better SNF and RAW management and hence to a reduced impact on the environment, incl. on groundwater.</p>	+1	+1

### Subsoil

**Table 5 - Subsoil - Expected Impacts of the Strategic Objectives**

	Strategic Objective/Expected Impact	Analysis and Description of the Expected Impact	Impact Assessment
1.	Minimising the time for SNF interim storage, taking into account that it is not an alternative to the final stage of SNF management	No impact on subsoil is expected.	0
2.	Processing of the entire amount of SNF generated from WWER-440 and WWER-1000 and disposal in the DGR of the vitrified HLW and other RAW generated during processing and returned to Bulgaria	An impact is expected, but due to insufficient detail of the tasks (currently no detailed concept has been developed for the processing of the entire amount of SNF and disposal in the DGR of the vitrified HLW and other RAW) full impact assessment is not possible. Considering what tasks are related to the disposal in the DGR, the impact will be primarily negative.	=
3.	Permanent reduction of the SNF quantities stored on the Kozloduy NPP site, through an average annual shipment of at least 77 t of heavy metal (HM) for long-term storage and	<p>No direct impact on subsoil is expected.</p> <p>Indirect positive impacts can be expected resulting from the permanent reduction of the SNF quantities stored on the Kozloduy NPP site and the corresponding reduction of the risk of</p>	+1

	Strategic Objective/Expected Impact	Analysis and Description of the Expected Impact	Impact Assessment
	processing abroad	subsoil pollution with radionuclides.	
4.	Preparation of a long-term plan for construction of a repository for interim storage of returned vitrified HLW and other RAW from SNF processing	Impact on subsoil is expected, but due to insufficient detail of the tasks (currently, there is no detailed concept developed), impact assessment is not possible.	=
5.	Commissioning of Stage 1 of the NDF by the end of 2025	The expected impacts during the construction of the NDF consist of mechanical disturbance of the geological environment at significant depths (up to about 38 m below ground level) and disposal of some of the excavated soil at off-site locations. The impact is negative, direct, permanent, long-term, irreversible, with medium degree of significance and territorial scope covering the investment proposal site.	-1
6.	Construction in the mid-term of Stages 2 and 3 of the NDF	The expected impacts during the construction of the NDF consist of mechanical disturbance of the geological environment at significant depths (up to about 38 m below ground level) and disposal of some of the excavated soil at off-site locations. The impact is negative, direct, permanent, long-term, irreversible, with high degree, but territorial scope only within the investment project site.	-1
7.	In the long-term, design and construct a DGR	Impact on subsoil is expected, but due to insufficient detail of the tasks (currently, there is no detailed concept developed), the impact assessment is not possible.	=
8.	Providing financial resources for the construction of a DGR through the establishment of a new dedicated fund	No impact on subsoil is expected, as this objective only involves the provision of financial resources.	0
9.	Providing and maintaining sustainable financial and human resources for ensuring the necessary expertise and skills, including for carrying out the research and development required for the SNF and RAW management and regulation	Impact on subsoil is not expected, as this objective involves providing and maintaining sustainable financial and human resources.	0
10.	Pursuing a policy of openness and transparency and involving the public in public hearings and decision-making on the SNF and RAW management.	No impact on subsoil is expected.	0

## Soil

**Table 6 - Soil - Expected Impacts of the Strategic Objectives**

	Strategic Objective/Expected Impact	Analysis and Description of the Expected Impact	Aspect	
			Radiological	Non-radiological
1.	Minimising the time for SNF interim storage, taking into account that it is not an alternative to the final stage of SNF management	No direct impact on soil is expected. Indirect positive impact can be expected from minimising the time for SNF interim storage and reducing the potential for soil pollution with radionuclides.	+1	0
2.	Processing of the entire amount of SNF generated from WWER-440 and WWER-1000 and disposal in the DGR of the vitrified HLW and other RAW generated during processing and returned to Bulgaria	Impact is expected but due to insufficient detail for the tasks (there is still no detailed concept for the processing of the entire amount of SNF generated and disposal in the DGR of the vitrified HLW and other RAW), full impact assessment is not possible.	=	=
3.	Permanent reduction of the SNF quantities stored on the Kozloduy NPP site, through an average annual shipment of at least 77 t of heavy metal (HM) for long-term storage and processing abroad	No impact on soil is expected. The permanent reduction of the SNF quantities stored on the Kozloduy NPP site reduces the risk of soil pollution with radionuclides and leads to indirect positive impacts.	+1	0
4.	Preparation of a long-term plan for construction of a repository for interim storage of returned vitrified HLW and other RAW from SNF processing	The preparation of a plan has no direct impact on soil. Impact on soil is expected from the implementation of the plan, related to the construction of a repository for interim storage of returned vitrified HLW and other RAW from SNF processing, but due to insufficient detail of the tasks (there is still no detailed concept), impact assessment is not possible.	=	=
5.	Commissioning of Stage 1 of the NDF by the end of 2025	No radiological impact on land and soil is expected. The expected impacts during the construction of the NDF consist in the mechanical disturbance and destruction of soils at the site and disposal of humus and excavated land at	0	-1

	Strategic Objective/Expected Impact	Analysis and Description of the Expected Impact	Aspect	
			Radiological	Non-radiological
		locations off-site. The impact is negative, direct, permanent, long-term, irreversible, with high degree of significant, but local – only within the investment project site.		
6.	Construction in the mid-term of Stages 2 and 3 of the NDF	No radiological impact on land and soil is expected.  The expected impact during the construction of the NDF consists of mechanical disturbance and destruction of soils at the site and disposing humus and excavated land at off-site location. The impact is negative, direct, permanent, long-term, irreversible, with high degree of significance, but local – only within the investment project site.	0	-1
7.	In the long-term, design and construct a DGR	Impact on soil is expected, but due to insufficient detail of the tasks (there is still no detailed concept), impact assessment is not possible.	=	=
8.	Providing financial resources for the construction of a DGR through the establishment of a new dedicated fund	No impact on soil is expected since this objective consists solely in providing financial resources.	0	0
9.	Providing and maintaining sustainable financial and human resources for ensuring the necessary expertise and skills, including for carrying out the research and development required for the SNF and RAW management and regulation	No impact on soil is expected since this objective only includes providing and maintaining sustainable financial and human resources.	0	0
10.	Pursuing a policy of openness and transparency and involving the public in public hearings and decision-making on the SNF and RAW management.	No impact on soil is expected.	0	0

## Landscape

**Table 7 - Landscape - Expected Impacts of the Strategic Objectives**

	Strategic Objective/Expected Impact	Analysis and Description of the Expected Impact	Impact Assessment
1.	Minimising the time for SNF interim storage, taking into account that it is not an alternative to the final stage of SNF management	No direct impact on landscape is expected. Indirect positive impact can be expected due to minimising the time for SNF interim storage and reducing the risk of radionuclides pollution of the elements of the landscape.	+1
2.	Processing of the entire amount of SNF generated from WWER-440 and WWER-1000 and disposal in the DGR of the vitrified HLW and other RAW generated during processing and returned to Bulgaria	Impact is expected, but due to insufficient detail of the tasks (there is still no detailed concept for the processing of the entire amount of SNF generated and disposal in the DGR of the vitrified HLW and other RAW), full impact assessment is not possible.	=
3.	Permanent reduction of the SNF quantities stored on the Kozloduy NPP site, through an average annual shipment of at least 77 t of heavy metal (HM) for long-term storage and processing abroad	No direct impact on landscape is expected. The permanent reduction of the SNF quantities stored on the Kozloduy NPP site reduces the risk of radionuclides pollution of the elements of the landscape and leads to indirect positive impacts.	+1
4.	Preparation of a long-term plan for construction of a repository for interim storage of returned vitrified HLW and other RAW from SNF processing	The preparation of a plan has no direct impact on landscape. Impact on landscape is expected from the implementation of the plan related to the construction of a repository for interim storage of returned vitrified HLW and other RAW from SNF processing, but due to insufficient detail of the tasks (there is still no detailed concept), impact assessment is not possible.	=
5.	Commissioning of Stage 1 of the NDF by the end of 2025	The expected impacts during the construction of the NDF consist of construction works and subsequent disposal of humus and excavated ground at off-site location, which leads to changes in the type of landscape. The impact is negative, direct, permanent, long-term, irreversible, with high degree of significance, but local only within the boundaries of the investment project site.	-1
6.	Construction in the mid-term of Stages 2 and 3 of the NDF	The expected impacts during the construction of the NDF consist of construction works and subsequent disposal of humus and excavated ground at off-site location, which leads	-1

	Strategic Objective/Expected Impact	Analysis and Description of the Expected Impact	Impact Assessment
		to changes in the type of landscape. The impact is negative, direct, permanent, long-term, irreversible, with high degree of significance, but local only within the boundaries of the investment project site.	
7.	In the long-term, design and construct a DGR	Impact on the elements of the landscape is expected, but due to insufficient detail of the tasks (there is still no detailed concept), impact assessment is not possible.	=
8.	Providing financial resources for the construction of a DGR through the establishment of a new dedicated fund	No impact on landscape is expected as this objective solely consists in providing financial resources	0
9.	Providing and maintaining sustainable financial and human resources for ensuring the necessary expertise and skills, including for carrying out the research and development required for the SNF and RAW management and regulation	No impact on landscape is expected, because this objective consists of providing and maintaining sustainable financial and human resources.	0
10.	Pursuing a policy of openness and transparency and involving the public in public hearings and decision-making on the SNF and RAW management.	No impact on landscape is expected.	0

## Biodiversity

### Flora

**Table 8 - Flora - Expected Impacts of the Strategic Objectives**

	Strategic Objective/Expected Impact	Analysis and Description of the Expected Impact	Aspect	
			Radiological	Non-Radiological
1.	Minimising the time for SNF interim storage, taking into account that it is not an alternative to the final stage of SNF management	Direct and indirect, long-term, and permanent impact in radiological terms is expected on flora due to minimising the time for SNF interim storage. The impact will be both local within the boundaries of NPP Kozloduy and regional in the area surrounding NPP Kozloduy.	+1	0
2.	Processing of the entire amount of SNF generated from WWER-440 and WWER-1000 and disposal in the DGR of the vitrified HLW and other RAW generated during processing and returned to Bulgaria	Due to insufficient detail of the tasks (there is still no detailed concept for the processing of the entire amount of SNF generated and the disposal in the DGR of the vitrified HLW and other RAW), full impact assessment is not possible.	=	=
3.	Permanent reduction of the SNF quantities stored on the Kozloduy NPP site, through an average annual shipment of at least 77 t of heavy metal (HM) for long-term storage and processing abroad	Direct and indirect, long-term, and permanent minor positive impact in radiological terms is expected on flora due to the reduction of the SNF quantities at the site.  In non-radiological terms, minor, local, indirect and temporary negative impact is expected on flora due to dust and emissions from transportation activities.	+1	-1
4.	Preparation of a long-term plan for construction of a repository for interim storage of returned vitrified HLW and other RAW from SNF processing	Due to insufficient detail of the tasks (a detailed plan has still not been developed), impact assessment is not possible.	=	=
5.	Commissioning of Stage 1 of the NDF by the end of 2025	According to the EIAR of the NDF, during operation no radiological impact on flora is expected in the 30 km area surrounding the NDF.	0	0
6.	Construction in the mid-term of Stages 2 and	According to the EIAR of the NDF, minor negative impact is expected during construction due to the removal of vegetative cover within the boundaries of the construction sites. The	0	-1

	Strategic Objective/Expected Impact	Analysis and Description of the Expected Impact	Aspect	
			Radiological	Non-Radiological
	3 of the NDF	construction of the NDF is not related to the loss of plant species and habitats of conservation importance. No radiological impact is expected.		
7.	In the long-term, design and construct a DGR	Due to insufficient detail of the tasks (there is still no detailed plan), impact assessment is not possible.	=	=
8.	Providing financial resources for the construction of a DGR through the establishment of a new dedicated fund	No impact on flora in radiological and non-radiological terms is expected, as this objective solely consists in providing financial resources.	0	0
9.	Providing and maintaining sustainable financial and human resources for ensuring the necessary expertise and skills, including for carrying out the research and development required for the SNF and RAW management and regulation	No direct impact on flora is expected. Indirect, permanent, long-term, secondary positive impact is expected on the entire environment, including on flora, in both radiological and non-radiological terms from maintaining sustainable financial resources, allowing for research and development activities, which would lead to improved management and regulation of SNF and RAW and would hence reduce their impact. Indirect, permanent, long-term, secondary positive impact is expected in both radiological and non-radiological terms from providing human resources with the necessary expertise and skills for better SNF and RAW management, which is expected to lead to a reduction of their impact on the entire environment, including on flora.	+1	+1
10.	Pursuing a policy of openness and transparency and involving the public in public hearings and decision-making on the SNF and RAW management.	No direct impact on flora is expected. Indirect, permanent, long-term, secondary positive impact in radiological and non-radiological terms is expected from involving the public in public hearings and decision-making regarding SNF and RAW management, which would lead to improved SNF and RAW management and hence to a reduction in their impact on the entire environment and, specifically, on flora.	+1	+1

## Fauna – Invertebrates

**Table 9- Fauna – Invertebrates - Expected Impacts of the Strategic Objectives**

	Strategic Objective/Expected Impact	Analysis and Description of the Expected Impact	Aspect	
			Radiological	Non-Radiological
1.	Minimising the time for SNF interim storage, taking into account that it is not an alternative to the final stage of SNF management	Indirect and long-term positive impact in radiological terms is expected from minimising the time for SNF storage and limiting the potential for environmental pollution with radionuclides and, hence, reducing impact on invertebrates. The impact will be both local, within the NPP Kozloduy site, and regional in the area surrounding NPP Kozloduy. No impact in non-radiological terms is expected.	+1	0
2.	Processing of the entire amount of SNF generated from WWER-440 and WWER-1000 and disposal in the DGR of the vitrified HLW and other RAW generated during processing and returned to Bulgaria	The lack of a detailed concept for the entire amount of SNF generated does not allow for the assessment of the specific impact on invertebrates. The overall assessment in radiological terms is for a positive, long-term, and indirect impact due to limiting the potential of environmental pollution with radionuclides and, hence, reducing impact on invertebrates. No impact in non-radiological terms is expected.	+1	0
3.	Permanent reduction of the SNF quantities stored on the Kozloduy NPP site, through an average annual shipment of at least 77 t of heavy metal (HM) for long-term storage and processing abroad	Indirect and long-term positive impact in radiological terms is expected because of reducing the time for SNF storage and limiting the potential for environmental pollution with radionuclides and, hence, reducing impact on invertebrates. The impact will be both local, within the NPP Kozloduy site, and regional, in the area surrounding NPP Kozloduy. No impact is expected in non-radiological terms, as the transportation of SNF will not affect natural habitats of invertebrates.	+1	0
4.	Preparation of a long-term plan for construction of a repository for interim storage of returned vitrified HLW and other RAW from SNF processing	The strategic objective is related to the pre-design phase, but the lack of information about the specific tasks does not allow for impact assessment to be carried out.	=	=
5.	Commissioning of Stage 1 of the NDF by the end of 2025	Compliance with the measures listed in the EIAR of the NDF during construction of the first stage ensures a minor negative impact on invertebrates in non-radiological terms.	0	0

	Strategic Objective/Expected Impact	Analysis and Description of the Expected Impact	Aspect	
			Radiological	Non-Radiological
		The commissioning stage will not lead to additional impacts on invertebrates in radiological and non-radiological terms.		
6.	Construction in the mid-term of Stages 2 and 3 of the NDF	<p>Direct and indirect minor negative short-term impact is expected in non-radiological terms during the construction of the two stages of the NDF, consisting of destruction of habitats of pedobiontes and those related to vegetation resulting from excavations and clearing of the vegetative cover as part of the construction works.</p> <p>The strategic objective does not involve the actual storage of SNF, which is why no impact in radiological terms is expected.</p>	0	-1
7.	In the long-term, design and construct a DGR	The lack of detail for the specific tasks and territorial scope of the DGR construction does not allow for impact assessment in radiological and non-radiological terms to be carried out at this stage.	=	=
8.	Providing financial resources for the construction of a DGR through the establishment of a new dedicated fund	No impact on the elements and factors of the environment is expected, including on invertebrates, because this objective only consists in providing financial resources.	0	0
9.	Providing and maintaining sustainable financial and human resources for ensuring the necessary expertise and skills, including for carrying out the research and development required for the SNF and RAW management and regulation	<p>The strategic objective solely includes administrative and financial tasks, which why no direct impact on invertebrates is expected.</p> <p>Indirect, long-term positive impact in radiological and non-radiological terms could be expected from providing human resources with the necessary expertise and skills for improved SNF and RAW management, which would lead to reducing their impact on the environment, including on invertebrates.</p>	+1	+1
10.	Pursuing a policy of openness and transparency and involving the public in public hearings and decision-making on the SNF and RAW management.	<p>Due to the entirely administrative nature of the tasks, no direct impact on invertebrates is expected.</p> <p>Indirect, long-term, secondary positive impact is expected from involving the public in public hearings and decision-making regarding SNF and RAW management, which would lead to improved SNF and RAW management, and, hence, would reduce environmental impact, including on invertebrates.</p>	+1	+1

**Fauna – Vertebrates (Fish)**

**Table 10 - Fauna – Fish - Expected Impacts of the Strategic Objectives**

	Strategic Objective/Expected Impact	Analysis and Description of the Expected Impact	Aspect	
			Radiological	Non-Radiological
1.	Minimising the time for SNF interim storage, taking into account that it is not an alternative to the final stage of SNF management	<p>Radiological aspect: Positive impact is expected, but it will be minor due to the nature of radioactive materials and the relativity of the reduced time for their storage compared to the time for their long-term storage.</p> <p>Non-radiological aspect: The process is constant is time, which is why no change in condition is expected.</p>	+1	0
2.	Processing of the entire amount of SNF generated from WWER-440 and WWER-1000 and disposal in the DGR of the vitrified HLW and other RAW generated during processing and returned to Bulgaria	<p>Radiological aspect: Significant positive impact is expected due to the reduction of the SNF quantities and the risks from their storage.</p> <p>Non-radiological terms: The process is constant is time, which is why no change in condition is expected.</p>	+2	0
3.	Permanent reduction of the SNF quantities stored on the Kozloduy NPP site, through an average annual shipment of at least 77 t of heavy metal (HM) for long-term storage and processing abroad	<p>Radiological aspect: Significant positive impact is expected due to the reduction of the SNF quantities.</p> <p>Non-radiological aspect: In the long-term, positive trends in the fish communities can be expected.</p>	+2	+1
4.	Preparation of a long-term plan for construction of a repository for interim storage of returned vitrified HLW and other RAW from SNF processing	<p>Radiological aspect: Due to insufficient information regarding the implementation of the objective, assessment of the impact is not possible at this stage.</p> <p>Non-radiological aspect: Due to insufficient information regarding the implementation of the objective, the assessment of the impact is not possible at this stage.</p>	=	=
5.	Commissioning of Stage 1 of the NDF by the end of 2025	<p>Radiological aspect: Significant positive impact is expected resulting from reducing the risk during long-term storage of SNF and RAW.</p> <p>Non-radiological aspect: No impact on fish as an element of the environment is</p>	+2	0

	Strategic Objective/Expected Impact	Analysis and Description of the Expected Impact	Aspect	
			Radiological	Non-Radiological
		expected.		
6.	Construction in the mid-term of Stages 2 and 3 of the NDF	Radiological aspect: Significant positive impact is expected resulting from reducing the risk during long-term storage of SNF and RAW. Non-radiological aspect: No impact on fish as an element of the environment is expected.	+2	0
7.	In the long-term, design and construct a DGR	Radiological aspect: Significant positive impact is expected resulting from reducing the risk during long-term storage of SNF and RAW. Non-radiological aspect: Due to insufficient detail regarding the implementation of the objective, impact assessment is not possible at this stage.	+2	=
8.	Providing financial resources for the construction of a DGR through the establishment of a new dedicated fund	Radiological aspect: Due to the administrative nature of the objective, impact assessment is not possible. Non-radiological aspect: Due to the administrative nature of the objective, impact assessment is not possible.	=	=
9.	Providing and maintaining sustainable financial and human resources for ensuring the necessary expertise and skills, including for carrying out the research and development required for the SNF and RAW management and regulation	Radiological aspect: The application of expertise will have a positive impact, which however will be minor due to the existence of other factors, which influence the management of SNF and RAW. Non-radiological aspect: The application of expertise will have a positive impact, which however will be minor due to the existence of other independent factors.	+1	+1
10.	Pursuing a policy of openness and transparency and involving the public in public hearings and decision-making on the SNF and RAW management.	Due to administrative nature of the objective, no direct impact on the fish fauna is expected. Indirect, long-term, secondary positive impact is expected from involving the public in public hearings and decision-making regarding SNF and RAW management, which would lead to improved SNF and RAW management and, hence, would lead to reduced impact on the environment, including on fish.	+1	+1

## Fauna – Amphibians and Reptiles

**Table 11 - Fauna – Amphibians and Reptiles - Expected Impacts of the Strategic Objectives**

	Strategic Objective/Expected Impact	Analysis and Description of the Expected Impact	Aspect	
			Radiological	Non-Radiological
1.	Minimising the time for SNF interim storage, taking into account that it is not an alternative to the final stage of SNF management	<p>Radiological aspect: Positive impact is expected, but it will be minor due to the nature of radioactive materials and the relativity of the reduced time for their storage compared to the time for their long-term storage.</p> <p>Non-radiological aspect: The process is constant in time, which is why no change in condition is expected.</p>	+1	0
2.	Processing of the entire amount of SNF generated from WWER-440 and WWER-1000 and disposal in the DGR of the vitrified HLW and other RAW generated during processing and returned to Bulgaria	<p>Radiological aspect: Significant positive impact is expected, due to the reduction of the SNF quantities and the risks from their storage.</p> <p>Non-radiological aspect: The process is constant in time, which is why no change in condition is expected.</p>	+2	0
3.	Permanent reduction of the SNF quantities stored on the Kozloduy NPP site, through an average annual shipment of at least 77 t of heavy metal (HM) for long-term storage and processing abroad	<p>Radiological aspect: Significant positive impact is expected related to the permanent reduction of the SNF quantities.</p> <p>Non-radiological aspect: The implementation of this objective is long-term and hence a positive impact can be expected, but it will be minor for amphibians and reptiles in time and territorial scope.</p>	+2	+1
4.	Preparation of a long-term plan for construction of a repository for interim storage of returned vitrified HLW and other RAW from SNF processing	<p>Radiological aspect: Due to insufficient information regarding the implementation of the objective, impact assessment is not possible at this stage.</p> <p>Non-radiological aspect: Due to insufficient information regarding the implementation of the objective, impact assessment is not possible at this stage.</p>	=	=
5.	Commissioning of Stage 1 of the NDF by the end of 2025	<p>Radiological aspect: Significant positive impact is expected resulting from reducing the risk during long-term storage of SNF and RAW.</p> <p>Non-radiological aspect: No impact on amphibians and reptiles is expected from the implementation of the objective.</p>	+2	0

	Strategic Objective/Expected Impact	Analysis and Description of the Expected Impact	Aspect	
			Radiological	Non-Radiological
6.	Construction in the mid-term of Stages 2 and 3 of the NDF	<p>Radiological aspect: Significant positive impact is expected resulting from reducing the risk during long-term storage of SNF and RAW.</p> <p>Non-radiological aspect: Due to insufficient information regarding the parameters of the design and construction of the NDF, impact assessment is not possible at this stage.</p>	+2	-1
7.	In the long-term, design and construct a DGR	<p>Radiological aspect: Significant positive impact is expected resulting from reducing the risk during long-term storage of SNF and RAW.</p> <p>Non-radiological aspect: Due to insufficient information regarding the implementation of the objective, impact assessment is not possible at this stage.</p>	+2	=
8.	Providing financial resources for the construction of a DGR through the establishment of a new dedicated fund	<p>Radiological aspect: Due to the administrative nature of the objective, impact assessment is not possible.</p> <p>Non-radiological aspect: Due to the administrative nature of the objective, impact assessment is not possible.</p>	=	=
9.	Providing and maintaining sustainable financial and human resources for ensuring the necessary expertise and skills, including for carrying out the research and development required for the SNF and RAW management and regulation	<p>Radiological aspect: The application of expertise will have a positive impact, which however will be minor due to the existence of other factors, which influence the management of SNF and RAW.</p> <p>Non-radiological aspect: The application of expertise will have a positive impact, which however will be minor, due to the existence of other independent factors.</p>	+1	+1
10.	Pursuing a policy of openness and transparency and involving the public in public hearings and decision-making on the SNF and RAW management.	<p>Due to the administrative nature of the objective, no direct impact on amphibians and reptiles is expected.</p> <p>Indirect, long-term, secondary positive impact is expected from involving the public in public hearings and decision-making regarding SNF and RAW management, which would lead to improved SNF and RAW management, and hence would lead to reduced impact on the environment, including on amphibians and reptiles.</p>	+1	+1

## Fauna - Mammals

**Table 12 - Fauna – Mammals - Expected Impacts of the Strategic Objectives**

	Strategic Objective/Expected Impact	Analysis and Description of the Expected Impact	Aspect	
			Radiological	Non-Radiological
1.	Minimising the time for SNF interim storage, taking into account that it is not an alternative to the final stage of SNF management	Indirect and long-term positive impact in radiological terms is expected from minimising the time for SNF storage and limiting the potential for environmental pollution with radionuclides, and hence reducing impact on mammals. The impact will be both local, within the NPP Kozloduy site, and regional, in the area surrounding NPP Kozloduy.  No impact in non-radiological terms is expected.	+1	0
2.	Processing of the entire amount of SNF generated from WWER-440 and WWER-1000 and disposal in the DGR of the vitrified HLW and other RAW generated during processing and returned to Bulgaria	The lack of a detailed concept for the entire amount of SNF generated does not allow for the assessment of the specific impact on mammals. The overall assessment in radiological terms is for a positive, long-term, and indirect impact, which consists of limiting the potential for environmental pollution with radionuclides, and hence reducing impact on mammals.  No impact in non-radiological terms is expected.	+1	0
3.	Permanent reduction of the SNF quantities stored on the Kozloduy NPP site, through an average annual shipment of at least 77 t of heavy metal (HM) for long-term storage and processing abroad	Indirect and long-term positive impact in radiological terms is expected from reducing the SNF quantities stored on the Kozloduy NPP site and limiting the potential for environmental pollution with radionuclides and, hence, reducing impact on mammals. The impact will be both local, within the boundaries of the NPP Kozloduy site, and regional, in the area surrounding NPP Kozloduy.  No impact in non-radiological terms is expected since the transportation of SNF will not affect natural habitats of mammals.	+1	0
4.	Preparation of a long-term plan for construction of a repository for interim storage of returned vitrified HLW and other RAW from SNF processing	This strategic objective is related to a pre-design phase and the lack of information regarding the specific tasks does not allow for impact assessment to be carried out.	=	=
5.	Commissioning of Stage 1 of the NDF by the end of 2025	Compliance with the measures, listed in the EIAR of the NDF during construction of the first stage ensures a minor negative impact on mammals in non-radiological terms. The	0	0

	Strategic Objective/Expected Impact	Analysis and Description of the Expected Impact	Aspect	
			Radiological	Non-Radiological
		commissioning stage will not lead to additional impacts on mammals in radiological and non-radiological terms.		
6.	Construction in the mid-term of Stages 2 and 3 of the NDF	Indirect, insignificant, long-term negative impact is expected in non-radiological terms during the construction of the two stages of the NDF, consisting of changes in mammal habitats resulting from excavations, clearing of the vegetative cover, movement of heavy-duty transportation equipment and increased human presence.  The strategic objective is not related to the actual SNF storage and, hence, impact in radiological terms is not expected.	0	-1
7.	In the long-term, design and construct a DGR	The lack of detail for the specific tasks and the territorial scope for the construction of a DGR does not allow for impact assessment in radiological and non-radiological terms to be carried out at this stage.	=	=
8.	Providing financial resources for the construction of a DGR through the establishment of a new dedicated fund	No impact on the elements and factors of the environment, including on mammals is expected, as this objective solely involves providing financial resources.	0	0
9.	Providing and maintaining sustainable financial and human resources for ensuring the necessary expertise and skills, including for carrying out the research and development required for the SNF and RAW management and regulation	The strategic objective consists entirely of administrative and financial tasks, and hence no direct impact on mammals is expected.  Indirect, long-term positive impact in radiological and non-radiological terms can be expected from providing human resources with the necessary expertise and skills for improved SNF and RAW management, which would lead to a reduction of their impact on the environment, including on mammals.	+1	+1
10.	Pursuing a policy of openness and transparency and involving the public in public hearings and decision-making on the SNF and RAW management.	Due to the entirely administrative nature of the tasks, no direct impact on mammals is expected.  Indirect, long-term, secondary positive impact is expected from involving the public in public hearings and decision-making regarding SNF and RAW management, which would lead to improved SNF and RAW management, and hence to a reduction of impact on the environment, including on mammals.	+1	+1

## Fauna - Birds

**Table 13 - Fauna – Birds - Expected Impacts of the Strategic Objectives**

	Strategic Objective/Expected Impact	Analysis and Description of the Expected Impact	Aspect	
			Radiological	Non-Radiological
1.	Minimising the time for SNF interim storage, taking into account that it is not an alternative to the final stage of SNF management	Direct and indirect, long-term, and permanent minor positive impact on avifauna is expected in radiological terms from minimising the time for SNF interim storage. The impact will be both local, within the NPP Kozloduy site, and regional, in the area surrounding NPP Kozloduy.	+1	0
2.	Processing of the entire amount of SNF generated from WWER-440 and WWER-1000 and disposal in the DGR of the vitrified HLW and other RAW generated during processing and returned to Bulgaria	Due to insufficient detail of the tasks (there is still no detailed concept for the processing of the entire amount of SNF generated and disposal in the DGR of the vitrified HLW and other RAW), full impact assessment is not possible.	=	=
3.	Permanent reduction of the SNF quantities stored on the Kozloduy NPP site, through an average annual shipment of at least 77 t of heavy metal (HM) for long-term storage and processing abroad	Direct and indirect, long-term, and permanent minor positive impact on avifauna is expected in radiological terms from the reduction of the SNF quantities at the site. In non-radiological terms, no impact on birds is expected.	+1	0
4.	Preparation of a long-term plan for construction of a repository for interim storage of returned vitrified HLW and other RAW from SNF processing	Due to insufficient detail of the tasks (there is currently no detailed plan), impact assessment is not possible.	=	=
5.	Commissioning of Stage 1 of the NDF by the end of 2025	According to the EIAR of the NDF, during operation no radiological impact on avifauna is expected within a 30 km area surrounding the NDF.	0	0
6.	Construction in the mid-term of Stages 2 and 3 of the NDF	According to the EIAR of the NDF, minor secondary negative impact is expected during construction due to the displacement of birds, as well as indirectly on specific individuals in the areas immediately adjacent to the Radiana site. When complying with the suggested mitigation measures in the EIAR, the degree of the impact will be <i>low</i> , without significant	0	-1

	Strategic Objective/Expected Impact	Analysis and Description of the Expected Impact	Aspect	
			Radiological	Non-Radiological
		changes in the abundance of faunal assemblages in the area and without significant fragmentation of habitats. No radiological impact is expected.		
7.	In the long-term, design and construct a DGR	Due to insufficient detail of the tasks (no detailed plan has yet been developed), impact assessment is not possible.	=	=
8.	Providing financial resources for the construction of a DGR through the establishment of a new dedicated fund	No radiological and non-radiological impact on avifauna is expected, as this objective only involves providing financial resources.	=	=
9.	Providing and maintaining sustainable financial and human resources for ensuring the necessary expertise and skills, including for carrying out the research and development required for the SNF and RAW management and regulation	No direct impact on avifauna is expected.  Indirect, permanent, long-term, secondary positive impacts in radiological and non-radiological terms are expected on the entire environment, including on avifauna, from maintaining sustainable financial resources enabling research and development, which would lead to improved management and regulation of SNF and RAW, and would hence reduce impacts.  Indirect, permanent, long-term, secondary positive impacts in both radiological and non-radiological aspects are expected from providing human resources with the necessary expertise and skills to better handle SNF and RAW management, which is also expected to lead to a reduction in their impact on the entire environment, including on avifauna.	+1	+1
10.	Pursuing a policy of openness and transparency and involving the public in public hearings and decision-making on the SNF and RAW management.	No direct impact on avifauna is expected.  Indirect, permanent, long term, secondary positive impacts in both radiological and non-radiological aspects are expected from involving the public in public hearings and decision-making on SNF and RAW management, which would lead to improved SNF and RAW management, and hence reduced impacts on the environment in general and on avifauna in particular.	+1	+1

## Protected Areas and Protected Territories

**Table 14 - Protected Areas and Protected Territories - Expected Impacts of the Strategic Objectives**

	Strategic Objective/Expected Impact	Analysis and Description of the Expected Impact	Aspect	
			Radiological	Non-Radiological
1.	Minimising the time for SNF interim storage, taking into account that it is not an alternative to the final stage of SNF management	Radiological aspect: Positive impact is expected, but it will be minor due to the nature of RAM and the relativity of the reduced time compared to the time for long-term storage. Non-radiological aspect: The process is constant in time, which is why no change in condition is expected.	+1	0
2.	Processing of the entire amount of SNF generated from WWER-440 and WWER-1000 and disposal in the DGR of the vitrified HLW and other RAW generated during processing and returned to Bulgaria	Radiological aspect: Significant positive impact is expected from reducing SNF quantities and risks from their storage. Non-radiological aspect: The process is constant in time, which is why no change in condition is expected.	+2	0
3.	Permanent reduction of the SNF quantities stored on the Kozloduy NPP site, through an average annual shipment of at least 77 t of heavy metal (HM) for long-term storage and processing abroad	Radiological aspect: Significant positive impact is expected from the permanent reduction of the SNF quantities. Non-radiological aspect: The implementation of this objective is long-term which is why positive impacts can be expected, but they will be minor with regards to achieving and maintaining favourable conservation status of the species and their habitats in PA and PS in time and territorial scope.	+2	+1
4.	Preparation of a long-term plan for construction of a repository for interim storage of returned vitrified HLW and other RAW from SNF processing	Radiological aspect: Due to insufficient information on the implementation of this objective, impact assessment is not possible at this stage. Non-radiological aspect: Due to insufficient information on the implementation of this objective, impact assessment is not possible at this stage.	=	=
5.	Commissioning of Stage 1 of the NDF by the end of 2025	Radiological aspect: Significant positive impact is expected from reducing the risk of long-term SNF and RAW storage. Non-radiological aspect: No impact on PA and PS is expected from the implementation of the objective.	+2	0

	Strategic Objective/Expected Impact	Analysis and Description of the Expected Impact	Aspect	
			Radiological	Non-Radiological
6.	Construction in the mid-term of Stages 2 and 3 of the NDF	<p>Radiological aspect: Significant positive impact is expected from reducing the risk of long-term SNF and RAW storage.</p> <p>Non-radiological aspect: Due to insufficient information with regards to the parameters for the design and construction of the NDF, impact assessment is not possible at this stage.</p>	+2	=
7.	In the long-term, design and construct a DGR	<p>Radiological aspect: Significant positive impact is expected related from reducing the risk of long-term SNF and RAW storage.</p> <p>Non-radiological aspect: Due to insufficient information on the implementation of this objective, impact assessment is not possible at this stage.</p>	+2	=
8.	Providing financial resources for the construction of a DGR through the establishment of a new dedicated fund	<p>Radiological aspect: Due to the administrative nature of the objective, impact assessment is not possible at this stage.</p> <p>Non-radiological aspect: Due to the administrative nature of the objective, impact assessment is not possible at this stage.</p>	=	=
9.	Providing and maintaining sustainable financial and human resources for ensuring the necessary expertise and skills, including for carrying out the research and development required for the SNF and RAW management and regulation	<p>Radiological aspect: The application of expertise will have a positive impact on the environment, including on PA and PS, but it will be minor due to the existence of other factors in SNF and RAW management.</p> <p>Non-radiological aspect: The application of expertise will have a positive impact in general, but it is expected to be minor due to the presence of other independent factors.</p>	+1	+1
10.	Pursuing a policy of openness and transparency and involving the public in public hearings and decision-making on the SNF and RAW management.	<p>Due to the entire administrative nature of the tasks, no direct impact on PA and PS is expected.</p> <p>Indirect, long-term, secondary positive impact is expected from involving the public in public hearings and decision-making regarding SNF and RAW management, which would lead to improved SNF and RAW management and, hence, to a reduction in the impact on the environment, including on PA and PS.</p>	+1	+1

## Cultural Heritage

**Table 15 - Cultural Heritage - Expected Impacts of the Strategic Objectives**

	Strategic Objective/Expected Impact	Analysis and Description of the Expected Impact	Impact Assessment
1.	Minimising the time for SNF interim storage, taking into account that it is not an alternative to the final stage of SNF management	No impact on cultural heritage is expected.	0
2.	Processing of the entire amount of SNF generated from WWER-440 and WWER-1000 and disposal in the DGR of the vitrified HLW and other RAW generated during processing and returned to Bulgaria	Impact can be expected, but due to insufficient detail of the tasks (there is still no detailed concept for the processing of the entire amount of SNF generated and disposal in the DGR of the vitrified HLW and other RAW), full impact assessment is not possible.	=
3.	Permanent reduction of the SNF quantities stored on the Kozloduy NPP site, through an average annual shipment of at least 77 t of heavy metal (HM) for long-term storage and processing abroad	No impact on cultural heritage is expected.	0
4.	Preparation of a long-term plan for construction of a repository for interim storage of returned vitrified HLW and other RAW from SNF processing	Impact can be expected but due to insufficient detail of the tasks (a detailed concept still hasn't been developed), impact assessment is not possible.	=
5.	Commissioning of Stage 1 of the NDF by the end of 2025	No negative impact is expected when following the provisions of the Cultural Heritage Act.	0
6.	Construction in the mid-term of Stages 2 and 3 of the NDF	No negative impact is expected when following the provisions of the Cultural Heritage Act.	0
7.	In the long-term, design and construct a DGR	Impact can be expected but due to insufficient detail of the tasks (a detailed concept still hasn't been developed), impact assessment is not possible.	=
8.	Providing financial resources for the construction of a DGR through the establishment of a new dedicated fund	No impact on cultural heritage is expected.	0
9.	Providing and maintaining sustainable financial and human resources for ensuring the necessary expertise and skills, including for carrying	No impact on cultural heritage is expected.	0

	Strategic Objective/Expected Impact	Analysis and Description of the Expected Impact	Impact Assessment
	out the research and development required for the SNF and RAW management and regulation		
10.	Pursuing a policy of openness and transparency and involving the public in public hearings and decision-making on the SNF and RAW management.	No impact on cultural heritage is expected.	0

## Waste

**Table 16 Waste - Expected Impacts of the Strategic Objectives**

	Strategic Objective/Expected Impact	Analysis and Description of the Expected Impact	Aspect	
			Radiological	Non-Radiological
1.	Minimising the time for SNF interim storage, taking into account that it is not an alternative to the final stage of SNF management	In radiological terms, the implementation of the strategic objective is not related to RAW management and hence no impact from RAW on the components of the environment is expected.  In non-radiological terms, the strategic objective is not related to the generation of non-radioactive waste and hence no impact is expected.	0	0
2.	Processing of the entire amount of SNF generated from WWER-440 and WWER-1000 and disposal in the DGR of the vitrified HLW and other RAW generated during processing and returned to Bulgaria	In radiological terms, minor positive impact can be expected from the implementation of the strategic objective, which will be direct and indirect, short- and long-term. The implementation of the objective will lead to safe and responsible RAW management.  In non-radiological terms, the strategic objective is not related to the generation of non-radioactive waste and hence no impact is expected.	+2	0
3.	Permanent reduction of the SNF quantities stored on the Kozloduy NPP site, through an average annual shipment of at least 77 t	In radiological terms, the implementation of the strategic objective is not associated with RAW management and hence no impact from RAW on the elements of the environment is expected.	0	0

	Strategic Objective/Expected Impact	Analysis and Description of the Expected Impact	Aspect	
			Radiological	Non-Radiological
	of heavy metal (HM) for long-term storage and processing abroad	In non-radiological terms, the strategic objective is not associated with the generation of non-radioactive waste and hence no impact is expected.		
4.	Preparation of a long-term plan for construction of a repository for interim storage of returned vitrified HLW and other RAW from SNF processing	In radiological terms, significant positive impact is expected from the implementation of this strategic objective, which will be both direct and indirect, short- and long-term. The implementation of the objective will lead to the planning of safe and responsible RAW management.  In non-radiological terms, the strategic objective is not associated with the generation of non-radioactive waste and hence no impact is expected.	+2	0
5.	Commissioning of Stage 1 of the NDF by the end of 2025	In radiological terms, significant positive impact is expected from the implementation of this strategic objective, which will be both direct and indirect, short- and long-term. The implementation of this objective will lead to safe and responsible RAW management.  In non-radiological terms, this strategic objective is associated with the generation of non-radioactive waste from the construction and operation activities related to the commissioning of the NDF, as well as from the workers engaged in these activities. The expected impact on the elements of the environment will be minor, negative, direct and indirect, short- and long-term, and reversible.	+2	-1
6.	Construction in the mid-term of Stages 2 and 3 of the NDF	In radiological terms, significant positive impact can be expected from the implementation of this strategic objective, which will be both direct and indirect, short- and long-term. The implementation of the objective will lead to safe and responsible RAW management.  In non-radiological terms, this strategic objective is related to the generation of non-radioactive waste from the activities related to the construction of the NDF, as well as from the staff engaged in these activities. The expected impact on the elements of the environment will be minor, negative, direct and indirect, short- and long-term, and reversible.	+2	-1
7.	In the long-term, design and construct a DGR	In radiological terms, significant positive impact can be expected from the implementation of this strategic objective, which will be both direct and indirect, short- and long-term. The implementation of the objective will lead to safe and responsible RAW management.	+2	-1

	Strategic Objective/Expected Impact	Analysis and Description of the Expected Impact	Aspect	
			Radiological	Non-Radiological
		In non-radiological terms, this strategic objective is related to the generation of non-radioactive waste from the activities related to the construction of the DGR, as well as from the staff engaged in these activities. The expected impact on the elements of the environment will be minor, negative, direct and indirect, short- and long-term, and reversible.		
8.	Providing financial resources for the construction of a DGR through the establishment of a new dedicated fund	<p>In radiological terms, significant positive impact can be expected from the implementation of this strategic objective, which will be both direct and indirect, short- and long-term. The implementation of the objective will lead to safe and responsible RAW management.</p> <p>In non-radiological terms, this objective is not associated with the generation of non-radioactive waste and hence no impact is expected.</p>	+2	0
9.	Providing and maintaining sustainable financial and human resources for ensuring the necessary expertise and skills, including for carrying out the research and development required for the SNF and RAW management and regulation	<p>In radiological terms, significant positive impact is expected from the implementation of the strategic objective, which will be indirect, short- and long-term. The envisaged objective is administrative, but its implementation will lead to the provision of resources – human and financial - for safe and responsible RAW management.</p> <p>In non-radiological terms, the objective is not associated with the generation of non-radioactive waste and hence no impact is expected.</p>	+2	0
10.	Pursuing a policy of openness and transparency and involving the public in public hearings and decision-making on the SNF and RAW management.	<p>In non-radiological terms, significant positive impact is expected from the implementation of the objective, which will be indirect, short- and long-term. The implementation of the objective will lead to the development of sustainable policies based on wide public support, which will ensure safe and responsible RAW management.</p> <p>In non-radiological terms, the objective is not associated with the generation of non-radioactive waste and hence no impact is expected.</p>	+2	0

## Harmful Physical Factors

Table 17 - Harmful Physical Factors - Expected Impacts of the Strategic Objectives

	Strategic Objective/Expected Impact	Analysis and Description of the Expected Impact	Aspect	
			Radiological	Non-Radiological
1.	Minimising the time for SNF interim storage, taking into account that it is not an alternative to the final stage of SNF management	<p>In radiological terms, direct and indirect, permanent positive impact on human health is expected from the implementation of this strategic objective, because minimising the time for SNF interim storage leads to a decrease in the radiological risk for the population and the environment.</p> <p>In non-radiological terms, this strategic objective is not associated with the generation of harmful physical factors and hence no impact is expected.</p>	+1	0
2.	Processing of the entire amount of SNF generated from WWER-440 and WWER-1000 and disposal in the DGR of the vitrified HLW and other RAW generated during processing and returned to Bulgaria	<p>In radiological terms, significant positive impact is expected from the implementation of this strategic objective, which will be both direct and indirect, short- and long-term. The implementation of this objective will lead to safe and responsible RAW management and hence positive impact in radiological terms is expected.</p> <p>In non-radiological terms, the strategic objective is not associated with the generation of harmful physical factors and hence no impact is expected.</p>	+2	0
3.	Permanent reduction of the SNF quantities stored on the Kozloduy NPP site, through an average annual shipment of at least 77 t of heavy metal (HM) for long-term storage and processing abroad	<p>In radiological terms, direct and indirect, long-term positive impact on the health and safety of the population and the environment is expected due to the reduction of the SNF quantities stored on the Kozloduy NPP site. The impact will be both local, within the NPP Kozloduy site, and regional, in the area surrounding NPP Kozloduy.</p> <p>In non-radiological terms, the strategic objective is not related to the generation of harmful physical factors and hence no impact is expected.</p>	+1	0
4.	Preparation of a long-term plan for construction of a repository for interim storage of returned vitrified HLW and other RAW from SNF processing	<p>In general, in radiological terms, significant positive impact is expected from the implementation of the strategic objective, which will be both direct and indirect, short- and long-term. The implementation of the objective will lead to the planning of safe and responsible RAW management and hence positive impact in radiological terms is expected. However, due to insufficient detail of the tasks (detailed concept still hasn't been developed), impact assessment is not possible.</p> <p>In non-radiological terms, the strategic objective is not associated with the generation of harmful physical</p>	=	=

	Strategic Objective/Expected Impact	Analysis and Description of the Expected Impact	Aspect	
			Radiological	Non-Radiological
		factors and hence no impact is expected.		
5.	Commissioning of Stage 1 of the NDF by the end of 2025	<p>In radiological terms, significant positive impact is expected from the implementation of the strategic objective, which will be both direct and indirect, short- and long-term. The implementation of the objective will lead to safe and responsible RAW management and hence positive impact in radiological terms is expected.</p> <p>In non-radiological terms, the strategic objective is associated with the generation of harmful physical factors such as noise and vibration from the activities related to the commissioning of the NDF. The expected impact will be minor, local, negative, direct and indirect, local only within the NDF site, short-term and reversible, and hence no negative impact on the elements of the environment is expected.</p>	+2	0
6.	Construction in the mid-term of Stages 2 and 3 of the NDF	<p>In radiological terms, significant positive impact is expected from the implementation of the strategic objective, which will be both direct and indirect, short- and long-term. The implementation of the objective will lead to safe and responsible RAW management and hence positive impact in radiological terms is expected.</p> <p>In non-radiological terms, this strategic objective is associated with the generation of harmful physical factors such as noise and vibration during the construction and operation activities associated with the commissioning of the NDF. The expected impact will be minor, local, negative, direct and indirect, only within the NDF site, short-term and reversible, and hence no negative impact on the elements of the environment is expected.</p>	+2	0
7.	In the long-term, design and construct a DGR	In general, in the long-term, after the construction of a DGR, positive impact is expected in radiological terms, but due to insufficient detail of the tasks (a detailed concept still hasn't been developed), impact assessment is not possible.	=	=
8.	Providing financial resources for the construction of a DGR through the establishment of a new dedicated fund	<p>No impact on the elements of the environment is expected from the implementation of this strategic objective, as this objective solely consists in providing financial resources.</p> <p>In general, upon provision of financial resources for the construction of a DGR, it is expected that a DGR will indeed be built, which will in turn have a positive impact in radiological terms, but due to insufficient detail of the tasks, impact assessment is not possible.</p>	=	=

	Strategic Objective/Expected Impact	Analysis and Description of the Expected Impact	Aspect	
			Radiological	Non-Radiological
9.	Providing and maintaining sustainable financial and human resources for ensuring the necessary expertise and skills, including for carrying out the research and development required for the SNF and RAW management and regulation	<p>In radiological terms, significant positive impact is expected from the implementation of the strategic objective, will be direct and indirect, short- and long-term. The envisaged objective is administrative, but its implementation will lead to the generation of resources – human and financial - for safe and responsible RAW management.</p> <p>The provision of resources – human and financial – for safe and responsible RAW management is expected to have positive impact on the remaining harmful physical factors – noise, vibration, and non-ionising radiation, which will be direct and indirect, short- and long-term. The envisaged objective is administrative, but impact is expected from its implementation.</p>	+2	+1
10.	Pursuing a policy of openness and transparency and involving the public in public hearings and decision-making on the SNF and RAW management.	<p>In radiological terms, positive impact is expected from the implementation of the strategic objective, which will be indirect, short- and long-term. The implementation of the objective will lead to the development of sustainable policies, based on wide public support, which will ensure safe and responsible RAW management.</p> <p>In non-radiological terms, no impact is expected.</p>	+1	0

## Material Assets

**Table 18 - Material Assets - Expected Impacts of the Strategic Objectives**

	Strategic Objective/Expected Impact	Analysis and Description of the Expected Impact	Assessment
1.	Minimising the time for SNF interim storage, taking into account that it is not an alternative to the final stage of SNF management	Positive impact is expected, associated with the introduction of new, more advanced measures and reliable safety systems in the SNF storage facility and outside of it, which would lead to improvement of the condition of the nuclear infrastructure in the country. The impact will be low-degree, permanent, long-term and with national significance.	+1
2.	Processing of the entire amount of SNF generated from WWER-440 and WWER-1000 and disposal in the DGR of the vitrified HLW and other RAW generated during	No impact on material assets is expected.	0

	Strategic Objective/Expected Impact	Analysis and Description of the Expected Impact	Assessment
	processing and returned to Bulgaria		
3.	Permanent reduction of the SNF quantities stored on the Kozloduy NPP site, through an average annual shipment of at least 77 t of heavy metal (HM) for long-term storage and processing abroad	No impact on material assets is expected.	<b>0</b>
4.	Preparation of a long-term plan for construction of a repository for interim storage of returned vitrified HLW and other RAW from SNF processing	Impact on material assets is possible, but due to insufficient detail of the tasks (detailed concept still hasn't been developed), impact assessment is not possible.	=
5.	Commissioning of Stage 1 of the NDF by the end of 2025	<p>Negative impact on existing roads, which will be used for the transportation of necessary materials for the construction of the NDF, could be expected, but it will not lead to measurable consequences or tangible change in the condition of the road infrastructure, and hence it is considered negligible.</p> <p>At the same time, positive impact is expected from the rehabilitation of second-class national road II-11 (the section from the city of Kozloduy to the village of Harlets), which will be funded by SERAW. The impact will be positive, medium-degree, local, long-term, and permanent.</p> <p>The positive impact from the development and improvement of the quality of the Bulgarian nuclear infrastructure is also significant. The impact is long-term, permanent, with national significance, and is assessed as +2.</p> <p>The overall impact assessment from this strategic objective is +1.</p>	<b>+1</b>
6.	Construction in the mid-term of Stages 2 and 3 of the NDF	<p>Negative impact on existing roads, which will be used for the transportation of necessary materials for the construction of stages 2 and 3 of the NDF, as well as for the transportation of RAW, could be expected. It will not lead to measurable consequences or tangible change in the condition of the road infrastructure, and hence it is considered negligible.</p> <p>Positive impact is expected from the development and improvement of the quality of the Bulgarian nuclear infrastructure. The impact is medium degree, long-term, permanent and with national significance.</p>	<b>+2</b>

	Strategic Objective/Expected Impact	Analysis and Description of the Expected Impact	Assessment
7.	In the long-term, design and construct a DGR	Impact on material assets could be expected, but due to insufficient detail of the tasks (detailed concept still hasn't been development), impact assessment is not possible.	=
8.	Providing financial resources for the construction of a DGR through the establishment of a new dedicated fund	No impact on material assets is expected.	0
9.	Providing and maintaining sustainable financial and human resources for ensuring the necessary expertise and skills, including for carrying out the research and development required for the SNF and RAW management and regulation	No impact on material assets is expected.	0
10.	Pursuing a policy of openness and transparency and involving the public in public hearings and decision-making on the SNF and RAW management.	No impact on material assets is expected.	0

## Population and Human Health

**Table 19 - Population and Human Health - Expected Impacts of the Strategic Objectives**

	Strategic Objective	Analysis and Description of the Expected Impact	Aspect	
			Radiological	Non-Radiological
1.	Minimising the time for SNF interim storage, taking into account that it is not an alternative to the final stage of SNF management	In radiological terms, direct and indirect, permanent positive impact on human health is expected, as minimising the time for SNF interim storage reduces the radiological risk for the population. The impact will be local, within the NPP Kozloduy site, and regional, in the area surrounding NPP Kozloduy. Safe SNF and RAW management will be ensured.	+ 2	0

	Strategic Objective	Analysis and Description of the Expected Impact	Aspect	
			Radiological	Non-Radiological
2.	Processing of the entire amount of SNF generated from WWER-440 and WWER-1000 and disposal in the DGR of the vitrified HLW and other RAW generated during processing and returned to Bulgaria	Positive impact is expected, but due to insufficient detail for the envisaged methods and stages of this process (detailed concept for the processing of the entire amount of SNF generated and disposal in the DGR of the vitrified HLW and other RAW has not yet been developed), full impact assessment is not possible.	=	=
3.	Permanent reduction of the SNF quantities stored on the Kozloduy NPP site, through an average annual shipment of at least 77 t of heavy metal (HM) for long-term storage and processing abroad	Direct and indirect, long-term, positive impact on human health and safety is expected in radiological terms, because reducing SNF quantities stored at the NPP Kozloduy site reduces the health risk for the population in the NPP Kozloduy area. The impact will be both local, within the NPP Kozloduy site, and regional, in the area surrounding NPP Kozloduy.  Secondary, long-term, positive impact on population is expected in non-radiological terms. The impact will be local (within the NPP Kozloduy site).	+ 2	+ 1
4.	Preparation of a long-term plan for construction of a repository for interim storage of returned vitrified HLW and other RAW from SNF processing	Impact on population is possible, but due to insufficient detail of the tasks (there is currently no detailed plan), at this stage the impact assessment cannot be refined.	=	=
5.	Commissioning of Stage 1 of the NDF by the end of 2025	<i>For the population:</i> Due to the remoteness of the site from settlements, during construction and operation no non-radiological impact is expected on people in settlements near the construction site. <u>Radiological aspect</u> - The burial technology (tunnel or trench type) practically does not entail additional radiological impact on the population. During normal operation of the NDF, the specified dose quota per person (up to 0.1 mSv/a) will not be exceeded.  <i>For the workers:</i> the supposed non-radiological impact during construction and operation will have limited territorial scope within the site. Impact during construction is short-term, negative, non-radiological, and the health risk is controllable. During operation of the NDF impact on the health of workers is direct and indirect, negative. The health risk is acceptable and controllable. During normal operation, the radiological impact on workers is minimal. The protection during design and operation of the NDF ensures compliance with the dose limit values for workers – 6 mSv/a per worker during the entire operation (dose limit value). The necessary protection measures are foreseen (EIAR of the NDF).	<b>0 pop.;</b> <b>-1 workers</b>	<b>0 pop.;</b> <b>-1 workers</b>

	Strategic Objective	Analysis and Description of the Expected Impact	Aspect	
			Radiological	Non-Radiological
6.	Construction in the mid-term of Stages 2 and 3 of the NDF	<p>During construction, no non-radiological and/or radiological impact on population is expected, as during construction there are no sources of non-ionizing radiation, the NDF is far away from settlements. According to the data from the EIA of the NDF, no radiological impacts during operation of the NDF are expected neither on population, nor on workers, because compliance with required norms for radiological protection and with dose limit values for population and staff are ensured:</p> <ul style="list-style-type: none"> <li>➤ 0.1 mSv/a for population</li> <li>➤ 6 mSv/a per worker during the entire operation (dose limit value).</li> </ul> <p>The radiological risk for the population is insignificant. The risk for workers is low, minor negative impact is possible, for which the necessary measures are foreseen.</p>	<b>0 pop.;</b> <b>-1 workers</b>	<b>0 pop.;</b> <b>-1 workers</b>
7.	In the long-term, design and construct a DGR	There is currently no detailed concept, impact on the population is expected during construction and operation, but due to insufficient detail of the tasks, specific impact assessment is not possible.	=	=
8.	Providing financial resources for the construction of a DGR through the establishment of a new dedicated fund	No direct or indirect impact on the population is expected, as this objective has a financial aspect only.	<b>0</b>	<b>0</b>
9.	Providing and maintaining sustainable financial and human resources for ensuring the necessary expertise and skills, including for carrying out the research and development required for the SNF and RAW management and regulation	<p>Direct and indirect, permanent, long-term positive impact on the health of the population is expected, in both radiological and non-radiological terms, from maintaining sustainable financial resources to carry out research and development activities leading to improved SNF and RAW management and regulation, which would reduce their impact on the environment.</p> <p>Long-term positive social impact on the population is expected from the development of human resources, training and qualification of personnel in the area of nuclear energy and management of SNF, RAW, etc., opportunity for development of scientists, participation in scientific projects, etc.</p> <p>Indirect, permanent, long-term, secondary positive impact is expected in radiological and non-radiological terms from the provision of human resources with the necessary expertise and skills for improved SNF and RAW management, which would lead to a reduction of their impact on the environment and, respectively, on human health and safety.</p>	<b>+ 2</b>	<b>+ 2</b>
10.	Pursuing a policy of openness and transparency and involving the public in public hearings and decision-making on the SNF and RAW management.	Indirect, permanent, long-term positive impact on population is expected from involving the public in public hearings and decision-making on the SNF and RAW management, which would lead to improved SNF and RAW management and hence to reduced impact on human health.	<b>+2</b>	<b>+2</b>

## 9.2. Impact assessment at the level of tasks and measures under the Strategic Objectives in the Action Plan according to the draft of an updated Strategy

The tables below show an analysis of the potential impact on the environment of the tasks and measures set out in the Action Plan for each Strategic Goal for the individual components and factors of the environment.

### Air

**Table 1 - Air - Expected Impacts of the tasks and measures for each objective**

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
<b><i>I. Safe management of spent nuclear fuel</i></b>			
<b>Responsible and safe management of SNF at Kozloduy NPP site</b>			
Maintaining WSFSF in safe condition. Renewal of WSFSF licence for SNF storage after 2024 for a new 10-year period	The implementation of the envisioned measures will minimize the risks of releasing radionuclides in gaseous state or in the form of aerosols into the environment, and of increasing the radiation gamma background in the area. The expected impact will be of "highly" positive significance. No impact is expected regarding the ambient air quality (AQ) in the non-radiological aspect	+2	0
Maintaining WSFSF in safe condition. Periodic renewal of WSFSF operating licence after 2034.			
<b>Safe management of SNF at Kozloduy NPP site - realistic scenario</b>			
SNF transportation from WWER from WSFSF and DSFSF for long-term storage and reprocessing as per current practices and existing contracts	The proposed measures will lead to positive impacts of "low" significance, which will result from the reduced risk of an increase in atmospheric radioactivity in the affected areas, as well as the subsequent increase in the gamma background in the areas.	+1	0
Maintaining readiness for SNF transportation from WWER-440 for long-term storage and reprocessing under a transport scheme via third countries	A local, temporary, reversible impact on the AQ is possible from the transport scheme, with a low level of significance, distributed along the length of the road corridor.		
Exploring SNF transportation and reprocessing options from WWER-1000 in EU countries with technological capabilities (France)	No impact is expected in the radiological aspect There is insufficient information to determine the impact on ambient air quality (AQ).	0	=
SNF transportation from WWER-1000 for long-term storage and reprocessing as per current practice	The proposed measures will lead to positive impacts of "low" significance, which will result from the reduced risk of an increase in atmospheric radioactivity in the affected	+1	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
	areas. A local, temporary, insignificant and reversible impact on the AQ is possible from the transport scheme, distributed along the length of the road corridor.		
<b>Safe management of SNF at Kozloduy NPP site - optimistic scenario</b>			
SNF transportation of from WWER-1000 for long-term storage and reprocessing as per current practice.	The proposed measures will lead to a positive impact of low significance, given the reduced risk of an increase in atmospheric radioactivity in the affected areas due to the transportation of SNF. A local, temporary, reversible impact on the AQ is expected from the transport scheme, with a low level of significance, distributed along the length of the road corridor	+1	0
SNF transportation from WWER-1000 for long-term storage and reprocessing.	A positive impact of low significance is expected, given the reduced risk of an increase in atmospheric radioactivity in the affected areas due to the transportation of SNF. A local, temporary, reversible impact on the AQ is expected from the transport scheme, with a low level of significance, distributed along the length of the road corridor	+1	
<b>Safe management of SNF at Kozloduy NPP site</b>			
Licensing of DSFSF extension for SNF storage from WWER-1000, selection of containers for dry storage Amendment to WSFSF licence	Indirect positive impact of low significance on the AQ in the radiological aspect, as a result of regulating the activities of spent nuclear fuel repositories, which would allow their correct functioning and treatment of nuclear waste in compliance with the regulations, and minimizing the risk of an increase in atmospheric radioactivity and radiation gamma-background in the affected areas. Not relevant to AQ in the non-radiological aspect	+1	0
<b>Safe management of SNF at Kozloduy NPP site</b>			
Updated assessment of the capacity of WWER-1000 dry spent fuel storage facility	The implementation of the envisaged measure will have an indirect positive impact of low significance, since it will allow a timely assessment of the current state of the facility for dry storage of SNF, and will be the basis for taking preventive measures in a timely manner so as not to allow the depletion of its capacity to lead to a deterioration of atmospheric radioactivity in the area due to problems in the management of SNF waste. Not relevant to AQ in the non-radiological aspect	+1	0
<b>II. Responsible and safe management of RAW</b>			
<b>Responsible and safe management of HLW at Kozloduy NPP site</b>			

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
Reconciliation of methodology for determining the quantity and characteristics of RAW from reprocessing SNF from WWER-440 and WWER-1000	The implementation of the measures will have an indirect positive impact with a low level of significance due to the fact that the determination of the amount and characteristics of RAW from the processing of SNF will allow timely measures to be taken for their subsequent treatment, so that radioactive pollution of the air environment is not allowed in the areas affected by the respective types of activities. Not relevant to AQ in the non-radiological aspect	+1	0
Reconciliation of methodology for determining the quantity and characteristics of RAW from reprocessing SNF from WWER-1000			
Preparation of a long-term plan for the construction of a repository for interim storage of vitrified HLW and other RAW from SNF reprocessing	The development of a long-term plan and vision will have an indirect positive impact of low significance, as it will lead to a clear vision in the management of vitrified HLW and other RAW, and will minimize the risk of deterioration of atmospheric radioactivity in the affected areas There is insufficient information to determine the impact on AAQ.	+1	=
<b>Safe management of low- and intermediate-level active RAW from Kozloduy NPP Units 5 and 6</b>			
Improvement of efficiency in separating RAW by its radiation, physical and chemical characteristics, and achieving compliance with RAW acceptance criteria	The implementation of the measures will have a direct positive impact with a low level of significance, related to reducing the possibilities of radioactive air pollution and increasing the radiation gamma-background in the affected areas, both of which are associated with the improvement of the management process of the generated waste. Not relevant to AQ in the non-radiological aspect.	+1	0
Minimization of RAW generation			
Enhancing safety in the storage and management of liquid and solid historical RAW			
<b>Achieving and maintaining sustainability in RAW management</b>			
Ensuring safe and efficient RAW storage in the interim storage facilities of SE RAW and its subsequent transportation conditioning and disposal	The implementation of the proposed measure will lead to a positive impact of high significance, as a result of ensuring the safe and efficient storage of RAW There is insufficient information to determine the impact on AQ.	+2	=
Construction of NRRAW for low- and intermediate-level waste	The implementation of the proposed measure will lead to a positive impact of high significance, as a result of the construction of the NRRAW A local, temporary, reversible impact on the AQ is expected during the construction of stages II and III and the close-down of the NRRAW with a very low level of significance	+2	0
<b>DC of SD “PRRAW-Novı Han” by a combination of delayed dismantling and option for personnel access to the facility.</b>			
Preparation of documents for issuing DC licence. Safe and effective DC	The implementation of the proposed measure will lead to a positive impact of high significance, as a result of the construction of the DGR and its subsequent exploitation in the process of SNF waste management, which will minimize the risk of deterioration of	0	0
Safe management of RAW from previous activities			

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
	the indicators of atmospheric radioactivity. There is insufficient information to determine the impact on AQ		
<b>III. Disposal of HLW, MARAW and SCRS cat. 2b and 3</b>			
<b>DGR Construction</b>			
Activities under Annex 6	The implementation of the proposed measure will lead to a positive impact of high significance, as a result of the construction of the DGR and its subsequent exploitation in the process of SNF waste management, which will minimize the risk of deterioration of the indicators of atmospheric radioactivity. There is insufficient information to determine the impact on AQ	+2	=
<b>Borehole disposal of spent and closed radioactive sources (SCRS)</b>			
Planning and implementation of a borehole disposal concept	The proposed measures will have a positive impact with a high level of significance, as they will be the basis of the correct treatment of used closed radioactive sources and will prevent the release of radionuclides in the gaseous state or in the form of aerosols into the environment, and an increase of the radiation gamma background in the area. There is insufficient information to determine the impact on AQ.	+2	=
Packing	A positive impact with a high level of significance is expected, as they will be the basis of the correct treatment of used closed radioactive sources and will prevent the release of radionuclides in the gaseous state or in the form of aerosols into the environment, and an increase of the radiation gamma background in the area Not relevant to AQ in the non-radiological aspect	+2	0
<b>IV. DC of BAS IRT 2000 research reactor</b>			
<b>DC of BAS IRT 2000 research reactor</b>			
Preparatory activities for DC	In order to prevent the manifestation of negative impacts, it is necessary to ensure compliance with the technological rules and work standards. Not relevant to AQ in the non-radiological aspect	0	0
DC activities	A local, temporary, reversible impact on the AQ is expected during the restoration of the sites, with a very low level of significance		0
<b>V. Decommissioning of Units 1-4 of Kozloduy NPP</b>			
<b>DC of units by continual dismantling</b>			
Ensuring safe and effective DC. Temporary storage of	In order to prevent the manifestation of negative impacts, it is necessary to ensure	0	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
generated RAW and its subsequent transportation, conditioning and disposal	compliance with the technological rules and work standards. A local, temporary, reversible impact on the AQ is expected during the construction of a facility for the production of packaging of the reinforced-concrete-containers type, the modernization of the site infrastructure and during soil reclamation around Units 1-4 with a very low level of significance		
<b>VI. Decommissioning of Units 5 and 6 of Kozloduy NPP and WSFSF</b>			
<b>Decommissioning of Units 5 and 6 of Kozloduy NPP</b>			
Development of pre-concept for DC of units 5 and 6 of Kozloduy NPP	The implementation of the measures will lead to an indirect positive impact with a low level of significance, since it will support the decommissioning process in accordance with the regulatory requirements and will thus minimize the risk of radioactive contamination of the atmosphere. Not relevant to AQ in the non-radiological aspect.	+1	0
Development of DC plan for Units 5 and 6 of Kozloduy NPP			
<b>DC of WSFSF</b>			
Development of pre-concept and plan for DC	The implementation of the measures will lead to an indirect positive impact with a low level of significance, since it will support the decommissioning process in accordance with the regulatory requirements and will thus minimize the risk of radioactive contamination of the atmosphere. Not relevant to AQ in the non-radiological aspect.	+1	0
Execution of DC activities	If compliance with the regulatory requirements and the technological rules and work standards is ensured, no changes are expected in atmospheric radioactivity and the gamma background in the affected areas. Violation of the work standards may be associated with insignificant negative impacts on the AQ in the radiological aspect, and the expected impacts are expected to be local, reversible and short-term, without being related to the discharge of harmful substances into the environment beyond the legally justified quantities. A local, temporary, reversible impact on the AQ is expected during the DC activities of the WSFSF until reaching the end state "brown field" with a very low level of significance	0	0
<b>VII. Adequate financial and human resources</b>			
<b>Ensuring adequate financial resources to implement the high level RAW management and decommissioning programmes.</b>			
Ensuring a long-term mechanism to accumulate funds.	Indirectly, the measures will have a positive impact with a low level of significance,	+1	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
Methodology for determining the costs of financing the DC of Units 5 and 6 of Kozloduy NPP.	providing financial resources for the lawful performance of activities and the prevention of radioactive contamination. Not relevant to AQ in the non-radiological aspect		
Strategy for investment of financial assets of NFDF, RAW fund and DGR construction target fund			
Sufficient funds accumulated			
<b>Ensuring and maintaining sufficient human resources by the licensee to fulfil its safety obligations in SNF and RAW management and DC.</b>			
Ensuring sufficient and qualified personnel for implementation of SNF and RAW management activities	Indirectly, the measures will have a positive impact with a low level of significance, providing sufficient and qualified human resources for the lawful performance of activities and the prevention of radioactive contamination. Not relevant to AQ in the non-radiological aspect	+1	0
Ensuring sufficient and qualified personnel for implementation of DC activities.			

## Climate

**Table 2 Climate - Expected Impacts of the tasks and measures for each objective**

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Assessment
<b><i>I. Safe management of spent nuclear fuel</i></b>		
<b>Responsible and safe management of SNF at Kozloduy NPP site</b>		
Maintaining WSFSF in safe condition. Renewal of WSFSF licence for SNF storage after 2024 for a new 10-year period	Climatic changes are a fact, as a result of global processes on a large territorial scale in both the Northern and Southern hemispheres. They mainly affect the air temperature regime, precipitation, as well as the change of the seasons. Both the amount of non-radioactive emissions of harmful substances at the Kozloduy NPP and	0
Maintaining WSFSF in safe condition. Periodic renewal of WSFSF operating licence after 2034.		
<b>Safe management of SNF at Kozloduy NPP site - realistic scenario</b>		
SNF transportation from WWER from WSFSF and DSFSF for long-term storage and reprocessing		

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Assessment
as per current practices and existing contracts	<p>PRRAW-Novi Han sites and the future DGR site, and the spatial scale of emission sources have a sub-grid effect on the spatial scales of climate change and do not contribute to such an impact.</p> <p>For resilience against the effects of climate change and for adaptation to the changes that have already occurred, the following measures can be adopted:</p> <ul style="list-style-type: none"> <li>• development of construction plans for the area of Kozloduy NPP and PRRAW-Novi Han to regulate the planned construction activities;</li> <li>• implementation of projects for the improvement of the technical infrastructure and construction of facilities for the prevention of natural disasters - floods, landslides, fires, etc.</li> <li>• planning of the transportation activities of both individuals and legal entities on the territory of the two sites - Kozloduy NPP and PRRAW-Novi Han, in accordance with the environmental, social and other features of the nearby residential areas;</li> <li>• management of non-radioactive waste collection activities - a strict system for separate collection at the two sites, as well as the introduction of separate collection of "green" waste;</li> <li>• introduction of energy efficiency measures in the administrative and production buildings at both sites in order to reduce energy consumption costs, which has a direct impact on the reduction of greenhouse gas emissions;</li> <li>• landscaping around the sites of the Kozloduy NPP and PRRAW-Novi Han will alleviate the pressure</li> </ul>	
Maintaining readiness for SNF transportation from WWER-440 for long-term storage and reprocessing under a transport scheme via third countries		
Exploring SNF transportation and reprocessing options from WWER-1000 in EU countries with technological capabilities (France)		
SNF transportation from WWER-1000 for long-term storage and reprocessing as per current practice		
<b>Safe management of SNF at Kozloduy NPP site - optimistic scenario Safe management of SNF at Kozloduy NPP site The planned tasks, measures and actions are for the implementation of an optimistic scenario.</b>		
SNF transportation of from WWER-1000 for long-term storage and reprocessing as per current practice.		
SNF transportation from WWER-1000 for long-term storage and reprocessing.		
<b>Safe management of SNF at Kozloduy NPP site</b>		
Licensing of DSFSF extension for SNF storage from WWER-1000, selection of containers for dry storage		
Amendment to WSFSF licence		
<b>Safe management of SNF at Kozloduy NPP site</b>		
Updated assessment of the capacity of WWER-1000 dry spent fuel storage facility		
<b>II. Responsible and safe management of RAW</b>		
<b>Responsible and safe interim storage of HLW at the Kozloduy NPP site.</b>		
Reconciliation of methodology for determining the quantity and characteristics of RAW from reprocessing SNF from WWER-440 and WWER-1000		
Reconciliation of methodology for determining the quantity and characteristics of RAW from reprocessing SNF from WWER-1000		
Preparation of a long-term plan for the construction of a repository for interim storage of vitrified HLW and other RAW from SNF reprocessing		
<b>Safe management of low- and intermediate-level active RAW from Kozloduy NPP Units 5 and 6</b>		
Improvement of efficiency in separating RAW by its radiation, physical and chemical characteristics, and achieving compliance with RAW acceptance criteria		
Minimization of RAW generation		

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Assessment
<p>Enhancing safety in the storage and management of liquid and solid historical RAW</p> <p><b>Achieving and maintaining sustainability in RAW management</b></p> <p>Ensuring safe and efficient RAW storage in the interim storage facilities of SE RAW and its subsequent transportation conditioning and disposal</p> <p>Construction of NRRAW for low- and intermediate-level waste</p> <p><b>DC of SD “PRRAW-Novi Han” by a combination of delayed dismantling and option for personnel access to the facility.</b></p> <p>Preparation of documents for issuing DC licence. Safe and effective DC</p> <p>Safe management of RAW from previous activities</p>	<p>on the microclimatic conditions and contribute to the adaptation to the changes that have already occurred in the areas of the two sites</p>	
<b>III. Disposal of HLW, MARAW and SCRS cat. 2b and 3</b>		
<b>DGR Construction</b>		
<p>Activities under Annex 6</p> <p><b>Borehole disposal of spent and closed radioactive sources (SCRS)</b></p> <p>Planning and implementation of a borehole disposal concept</p> <p>Packing</p>	<p>No impact on Climate is expected.</p>	<p>0</p>
<b>IV. DC of BAS IRT 2000 research reactor</b>		
<p><b>DC of BAS IRT 2000 research reactor</b></p> <p>Preparatory activities for DC</p> <p>DC activities</p>	<p>No impact on Climate is expected.</p>	<p>0</p>
<b>V. Decommissioning of Units 1-4 of Kozloduy NPP</b>		
<b>DC of units by continual dismantling</b>		
<p>Ensuring safe and effective DC. Temporary storage of generated RAW and its subsequent transportation, conditioning and disposal</p>	<p>No impact on Climate is expected.</p>	<p>0</p>
<b>VI. Decommissioning of Units 5 and 6 of Kozloduy NPP and WSFSF</b>		
<b>Decommissioning of Units 5 and 6 of Kozloduy NPP</b>		
<p>Development of pre-concept for DC of units 5 and 6 of Kozloduy NPP</p> <p>Development of DC plan for Units 5 and 6 of Kozloduy NPP</p> <p><b>DC of WSFSF</b></p> <p>Development of pre-concept and plan for DC</p> <p>Execution of DC activities</p>	<p>No impact on Climate is expected.</p>	<p>0</p>
<b>VII. Adequate financial and human resources</b>		

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Assessment
<b>Ensuring adequate financial resources to implement the high level RAW management and decommissioning programmes.</b>	No impact on Climate is expected.	<b>0</b>
Ensuring a long-term mechanism to accumulate funds.		
Methodology for determining the costs of financing the DC of Units 5 and 6 of Kozloduy NPP.		
Strategy for investment of financial assets of NFDF, RAW fund and DGR construction target fund		
Sufficient funds accumulated		
<b>Ensuring and maintaining sufficient human resources by the licensee to fulfil its safety obligations in SNF and RAW management and DC.</b>		
Ensuring sufficient and qualified personnel for implementation of SNF and RAW management activities		
Ensuring sufficient and qualified personnel for implementation of DC activities.		

## Water

### Surface Water

**Table 3 - Surface Water - Expected Impacts of the tasks and measures for each objective**

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
<b><i>I. Safe management of spent nuclear fuel</i></b>			
<b>Responsible and safe management of SNF at Kozloduy NPP site</b>			
Maintaining WSFSF in safe condition. Renewal of WSFSF licence for SNF storage after 2024 for a new 10-year period	Insignificant positive impact from introducing new, more modern measures and reliable safety systems, including in relation to surface water.	+1	+1
Maintaining WSFSF in safe condition. Periodic renewal of	No impact on surface water is expected as this is primarily an administrative measure with	0	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
WSFSF operating licence after 2034.	no physical dimension affecting surface water		
<b>Safe management of SNF at Kozloduy NPP site - realistic scenario</b>			
SNF transportation from WWER from WSFSF and DSFSF for long-term storage and reprocessing as per current practices and existing contracts	Insignificant to no adverse impact on surface water is to be expected. It is possible that minimal additional amounts of wastewater might be generated from the activities related to the removal of containers from WSFSF and DSFSF and their preparation for transportation. When the containers are opened, a slight increase in radiation-contaminated water is possible. The impacts will be short-term and temporary.	-1/0	-1/0
Maintaining readiness for SNF transportation from WWER-440 for long-term storage and reprocessing under a transport scheme via third countries	No impact on surface water is expected as this is primarily an administrative measure with no physical dimension affecting surface water	0	0
Exploring SNF transportation and reprocessing options from WWER-1000 in EU countries with technological capabilities (France)	During most of the operations involved in this task, no impact on surface water is expected as they involve primarily an administrative measure with no physical dimension affecting surface water. In the radiological aspect, an insignificant positive impact can be expected from the reduction of the amount of SNF on the site and the corresponding reduction of radiation-contaminated waters. The impact will be positive, indirect and long term.	+1	0
SNF transportation from WWER-1000 for long-term storage and reprocessing as per current practice	In the radiological aspect, an insignificant positive impact can be expected from the reduction of the amount of SNF on the site and the corresponding reduction of radiation-contaminated waters. The impact will be positive, indirect and long term.	+1	0
<b>Safe management of SNF at Kozloduy NPP site - optimistic scenario</b>			
SNF transportation of from WWER-1000 for long-term storage and reprocessing as per current practice.	In the radiological aspect, an insignificant positive impact can be expected from the reduction of the amount of SNF on the site and the corresponding reduction of radiation-contaminated waters. The impact will be positive, indirect and long term.	+1	0
SNF transportation from WWER-1000 for long-term storage and reprocessing.	In the radiological aspect, an insignificant positive impact can be expected from the reduction of the amount of SNF on the site and the corresponding reduction of radiation-contaminated waters. The impact will be positive, indirect and long term.	+1	0
<b>Safe management of SNF at Kozloduy NPP site</b>			
Licensing of DSFSF extension for SNF storage from WWER-1000, selection of containers for dry storage	No impact on surface water is expected as this is primarily an administrative measure with no physical dimension affecting surface water	0	0
Amendment to WSFSF licence	No impact on surface water is expected as this is primarily an administrative measure with no physical dimension affecting surface water	0	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
<b>Safe management of SNF at Kozloduy NPP site</b>			
Updated assessment of the capacity of WWER-1000 dry spent fuel storage facility	No impact on surface water is expected as this is primarily an administrative measure with no physical dimension affecting surface water	0	0
<b>II. Responsible and safe management of RAW</b>			
<b>Responsible and safe management of HLW at Kozloduy NPP site</b>			
Reconciliation of methodology for determining the quantity and characteristics of RAW from reprocessing SNF from WWER-440 and WWER-1000	No impact on surface water is expected as this is primarily an administrative measure with no physical dimension affecting surface water	0	0
Reconciliation of methodology for determining the quantity and characteristics of RAW from reprocessing SNF from WWER-1000	No impact on surface water is expected as this is primarily an administrative measure with no physical dimension affecting surface water	0	0
Preparation of a long-term plan for the construction of a repository for interim storage of vitrified HLW and other RAW from SNF reprocessing	No impact on surface water is expected as this is primarily an administrative measure with no physical dimension affecting surface water	0	0
<b>Safe management of low- and intermediate-level active RAW from Kozloduy NPP Units 5 and 6</b>			
Improvement of efficiency in separating RAW by its radiation, physical and chemical characteristics, and achieving compliance with RAW acceptance criteria	No impact on surface water is expected as this is primarily an administrative measure with no physical dimension affecting surface water	0	0
Minimization of RAW generation	In the radiological aspect, an insignificant positive impact can be expected from the reduction of the amount of RAW on the site and the corresponding reduction of radiation-contaminated waters. The impact will be positive, indirect and long term.	+1	0
Enhancing safety in the storage and management of liquid and solid historical RAW	In the radiological and non-radiological aspect, an insignificant negative impact can be expected during the extraction of sludge and sorbents due to the generation of small additional amounts of wastewater, including radiation pollution. This impact is expected to be temporary and short-term within the Kozloduy NPP site. At the same time, an insignificant positive impact can be expected after the conditioning of the sludge and sorbents. This impact is expected to be medium-term (until the gradual accumulation of new amounts of sludge and sorbents) and within the Kozloduy NPP site	-1	-1
<b>Achieving and maintaining sustainability in RAW management</b>			
Ensuring safe and efficient RAW storage in the interim	An insignificant negative impact is expected during the construction activities related to the	0	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
storage facilities of SE RAW and its subsequent transportation conditioning and disposal	modernization of the RAW Processing Workshop. This impact will be short-term and temporary. An insignificant positive impact on surface water is expected after the implementation of the modernization program. It will be due to improved water management systems and will be long-term. Overall, no impact is expected.		
Construction of NRRAW for low- and intermediate-level waste	According to the EIA report of the NRRAW, an insignificant negative impact in the non-radiological aspect is expected during the construction of stages I, II and III. This impact will be short-term, temporary and reversible. During the operation, according to the description in the EIA report of the NRRAW, neither radiological, nor non-radiological impacts are expected on the water. According to the EIA report of the NRRAW, no negative non-radiological and radiological impact is expected during the close-down of the NRRAW, subject to compliance with the close-down plans and all applicable Bulgarian and international legal requirements and practices	0	-1
<b>DC of SD “PRRAW-Novi Han” by a combination of delayed dismantling and option for personnel access to the facility.</b>			
Preparation of documents for issuing DC licence. Safe and effective DC	A direct, temporary and short-term negative impact in the radiological and non-radiological aspect is expected, which will not be significant, and will be local - within the site, during the extraction of RAW and the dismantling of underground facilities. A direct, temporary and short-term negative impact is expected in a non-radiological aspect, which will not be significant, during the restoration of the vacated lands.	-1	-1
Safe management of RAW from previous activities	A permanent and long-term positive impact in the radiological aspect is expected on the waters as a result of the development and implementation of the plans and projects for the management of RAW from previous activities.	+1	+1
<b>III. Disposal of HLW, MARAW and SCRS cat. 2b and 3</b>			
<b>DGR Construction</b>			
Activities under Annex 6	It is expected that there will be an impact on the waters, but due to insufficient detailing of the tasks (as of now, there is no concept developed in detail yet), a full assessment of the impact is not possible.	=	=
<b>Borehole disposal of spent and closed radioactive sources (SCRS)</b>			

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
Planning and implementation of a borehole disposal concept	It is expected that there will be an impact on the waters, but due to insufficient detailing of the tasks (as of now, there is no concept developed in detail yet), a full assessment of the impact is not possible.	=	=
Packing	A permanent and long-term positive impact in the radiological aspect is expected on the waters as a result of the development and implementation of the program for deep borehole disposal. No impact is expected in the non-radiological aspect.	+1	0
<b>IV. DC of BAS IRT 2000 research reactor</b>			
<b>DC of BAS IRT 2000 research reactor</b>			
Preparatory activities for DC	No impact is expected on water, as the activities are mainly related to administrative procedures	0	0
DC activities	Due to the specifics of the activities, most likely there will be no impact on the waters from the DC	0	0
<b>V. Decommissioning of Units 1-4 of Kozloduy NPP</b>			
<b>DC of units by continual dismantling</b>			
Ensuring safe and effective DC. Temporary storage of generated RAW and its subsequent transportation, conditioning and disposal	A direct short-term, temporary, insignificant negative and reversed impact in the non-radiological aspect is expected on the waters during the construction activities. A direct and indirect permanent and long-term, positive impact is expected in the radiological aspect from reducing the volume of RAW for disposal.	+1	-1
<b>VI. Decommissioning of Units 5 and 6 of Kozloduy NPP and WSFSF</b>			
<b>Decommissioning of Units 5 and 6 of Kozloduy NPP</b>			
Development of pre-concept for DC of units 5 and 6 of Kozloduy NPP	No impact is expected on waters as a concept is being developed.	0	0
Development of DC plan for Units 5 and 6 of Kozloduy NPP	No impact is expected on waters, as a plan for the DC of Units 5 and 6 of the Kozloduy NPP is being adopted with the definition of specific stages, terms and goals.	0	0
<b>DC of WSFSF</b>			
Development of pre-concept and plan for DC	No impact is expected on waters as a concept and a plan are being developed.	0	0
Execution of DC activities	It is expected that there will be an impact on the waters, but due to insufficient detailing of the tasks (as of now, there is no DC plan developed in detail yet), a full assessment of the impact is not possible.	=	=

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
<b>VII. Adequate financial and human resources</b>			
<b>Ensuring adequate financial resources to implement the high level RAW management and decommissioning programmes.</b>			
Ensuring a long-term mechanism to accumulate funds.	No impact is expected on waters, as an Ordinance is being adopted.	0	0
Methodology for determining the costs of financing the DC of Units 5 and 6 of Kozloduy NPP.	No impact is expected on waters, as a methodology is being developed and adopted.	0	0
Strategy for investment of financial assets of NFDF, RAW fund and DGR construction target fund	No impact is expected on waters, as a strategy is being developed and adopted.	0	0
Sufficient funds accumulated	No impact is expected on waters, as the adequacy of the funds is being assessed	0	0
<b>Ensuring and maintaining sufficient human resources by the licensee to fulfil its safety obligations in SNF and RAW management and DC.</b>			
Ensuring sufficient and qualified personnel for implementation of SNF and RAW management activities	An indirect, permanent, long-term, secondary positive impact is expected in the radiological and non-radiological aspects from the provision of qualified personnel with the necessary expertise and qualifications for the implementation of the DC activities, which is expected to lead to a reduction of their impact on waters.	+1	+1
Ensuring sufficient and qualified personnel for implementation of DC activities.	An indirect, permanent, long-term, secondary positive impact is expected in the radiological and non-radiological aspects from the provision of qualified personnel with the necessary expertise and qualifications for the implementation of the DC activities, which is expected to lead to a reduction of their impact on waters.	+1	+1

## Groundwater

**Table 4 - Groundwater - Expected Impacts of the tasks and measures for each objective**

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
<b><i>I. Safe management of spent nuclear fuel</i></b>			
<b>Responsible and safe management of SNF at Kozloduy NPP site</b>			
Maintaining WSFSF in safe condition. Renewal of WSFSF licence for SNF storage after 2024 for a new 10-year period	Insignificant positive impact from the introduction of new, more modern measures and reliable safety systems, including in relation to the prevention of contamination of groundwater.	+1	+1
Maintaining WSFSF in safe condition. Periodic renewal of WSFSF operating licence after 2034.	No impact on groundwater is expected as this is primarily an administrative measure with no physical dimension affecting surface water	0	0
<b>Safe management of SNF at Kozloduy NPP site - realistic scenario</b>			
SNF transportation from WWER from WSFSF and DSFSF for long-term storage and reprocessing as per current practices and existing contracts	No impact on groundwater is expected as this is a measure with no physical dimension affecting groundwater	0	0
Maintaining readiness for SNF transportation from WWER-440 for long-term storage and reprocessing under a transport scheme via third countries	No impact on groundwater is expected as this is a measure with no physical dimension affecting groundwater	0	0
Exploring SNF transportation and reprocessing options from WWER-1000 in EU countries with technological capabilities (France)	During most of the operations involved in this task, no impact on groundwater is expected as they involve primarily an administrative measure with no physical dimension affecting groundwater. The remaining operations are related to the transportation of SNF, which does not affect groundwater	0	0
SNF transportation from WWER-1000 for long-term storage and reprocessing as per current practice	The operations are related to the transportation of SNF, which does not affect groundwater	0	0
<b>Safe management of SNF at Kozloduy NPP site - optimistic scenario</b>			
SNF transportation of from WWER-1000 for long-term storage and reprocessing as per current practice.	The operations are related to the transportation of SNF, which does not affect groundwater	0	0
SNF transportation from WWER-1000 for long-term storage and reprocessing.	The operations are related to the transportation of SNF, which does not affect groundwater	0	0
<b>Safe management of SNF at Kozloduy NPP site</b>			
Licensing of DSFSF extension for SNF storage from WWER-	No impact on groundwater is expected as this is primarily an administrative measure	0	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
1000, selection of containers for dry storage	with no physical dimension affecting groundwater		
Amendment to WSFSF licence	No impact on groundwater is expected as this is primarily an administrative measure with no physical dimension affecting groundwater	0	0
<b>Safe management of SNF at Kozloduy NPP site</b>			
Updated assessment of the capacity of WWER-1000 dry spent fuel storage facility	No impact on groundwater is expected as this is primarily an administrative measure with no physical dimension affecting groundwater	0	0
<b>II. Responsible and safe management of RAW</b>			
<b>Responsible and safe management of HLW at Kozloduy NPP site</b>			
Reconciliation of methodology for determining the quantity and characteristics of RAW from reprocessing SNF from WWER-440 and WWER-1000	No impact on groundwater is expected as this is primarily an administrative measure with no physical dimension affecting groundwater	0	0
Reconciliation of methodology for determining the quantity and characteristics of RAW from reprocessing SNF from WWER-1000	No impact on groundwater is expected as this is primarily an administrative measure with no physical dimension affecting groundwater	0	0
Preparation of a long-term plan for the construction of a repository for interim storage of vitrified HLW and other RAW from SNF reprocessing	No impact on groundwater is expected as this is primarily an administrative measure with no physical dimension affecting groundwater	0	0
<b>Safe management of low- and intermediate-level active RAW from Kozloduy NPP Units 5 and 6</b>			
Improvement of efficiency in separating RAW by its radiation, physical and chemical characteristics, and achieving compliance with RAW acceptance criteria	No impact on groundwater is expected as this is primarily an administrative measure with no physical dimension affecting groundwater	0	0
Minimization of RAW generation	No impact is expected on groundwater, as the measure does not include activities that would affect groundwater	0	0
Enhancing safety in the storage and management of liquid and solid historical RAW	Insignificant positive impact increasing safety in the storage and management of liquid and solid historical RAW, including in terms of preventing contamination of groundwater.	+1	+1
<b>Achieving and maintaining sustainability in RAW management</b>			
Ensuring safe and efficient RAW storage in the interim storage facilities of SE RAW and its subsequent transportation conditioning and disposal	No impact is expected on groundwater, as the measure does not include activities that would affect groundwater	0	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
Construction of NRRAW for low- and intermediate-level waste	According to the EIA report of the NRRAW, no impact is expected on groundwater during construction, during operation, or during close-down of the NRRAW.	0	0
<b>DC of SD “PRRAW-Novi Han” by a combination of delayed dismantling and option for personnel access to the facility.</b>			
Preparation of documents for issuing DC licence. Safe and effective DC	No impact is expected on groundwater, as the measure does not include activities that would affect groundwater	0	0
Safe management of RAW from previous activities	No impact is expected on groundwater, as the measure does not include activities that would affect groundwater	0	0
<b>III. Disposal of HLW, MARAW and SCRS cat. 2b and 3</b>			
<b>DGR Construction</b>			
Activities under Annex 6	It is expected that there will be an impact on groundwater, but due to insufficient detailing of the tasks (as of now, there is no concept developed in detail yet), a full assessment of the impact is not possible.	=	=
<b>Borehole disposal of spent and closed radioactive sources (SCRS)</b>			
Planning and implementation of a borehole disposal concept	It is expected that there will be an impact on groundwater, but due to insufficient detailing of the tasks (as of now, there is no concept developed in detail yet), a full assessment of the impact is not possible.	=	=
Packing	It is expected that there will be an impact on groundwater, but due to insufficient detailing of the tasks (as of now, there is no program developed in detail yet), a full assessment of the impact is not possible.	=	=
<b>IV. DC of BAS IRT 2000 research reactor</b>			
<b>DC of BAS IRT 2000 research reactor</b>			
Preparatory activities for DC	No impact is expected on groundwater, as the activities are mainly related to administrative procedures	0	0
DC activities	Due to the specifics of the activities, there will be no impact on the groundwater from the DC	0	0
<b>V. Decommissioning of Units 1-4 of Kozloduy NPP</b>			
<b>DC of units by continual dismantling</b>			
Ensuring safe and effective DC. Temporary storage of generated RAW and its subsequent transportation, conditioning and disposal	No impact is expected on groundwater, as the measure does not include activities that would affect groundwater	0	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
<b>VI. Decommissioning of Units 5 and 6 of Kozloduy NPP and WSFSF</b>			
<b>Decommissioning of Units 5 and 6 of Kozloduy NPP</b>			
Development of pre-concept for DC of units 5 and 6 of Kozloduy NPP	No impact is expected on groundwater as a concept is being developed.	0	0
Development of DC plan for Units 5 and 6 of Kozloduy NPP	No impact is expected on groundwater, as a plan for the DC of Units 5 and 6 of the Kozloduy NPP is being adopted with the definition of specific stages, terms and goals.	0	0
<b>DC of WSFSF</b>			
Development of pre-concept and plan for DC	No impact is expected on groundwater as a concept and a plan are being adopted.	0	0
Execution of DC activities	Most likely there will be no impact on groundwater, but due to insufficient detailing of the tasks (as of now, there is no DC plan developed in detail yet), a full assessment of the impact is not possible.	=	=
<b>VII. Adequate financial and human resources</b>			
<b>Ensuring adequate financial resources to implement the high level RAW management and decommissioning programmes.</b>			
Ensuring a long-term mechanism to accumulate funds.	No impact is expected on waters, as an Ordinance is being adopted.	0	0
Methodology for determining the costs of financing the DC of Units 5 and 6 of Kozloduy NPP.	No impact is expected on waters, as a methodology is being developed and adopted.	0	0
Strategy for investment of financial assets of NFDF, RAW fund and DGR construction target fund	No impact is expected on waters, as a strategy is being developed and adopted.	0	0
Sufficient funds accumulated	No impact is expected on waters, as the adequacy of the funds is being assessed	0	0
<b>Ensuring and maintaining sufficient human resources by the licensee to fulfil its safety obligations in SNF and RAW management and DC.</b>			
Ensuring sufficient and qualified personnel for implementation of SNF and RAW management activities	An indirect, permanent, long-term, secondary positive impact is expected in the radiological and non-radiological aspects from the provision of qualified personnel with the necessary expertise and qualifications for the implementation of the DC activities, which is expected to lead to a reduction of their impact on waters.	+1	+1
Ensuring sufficient and qualified personnel for implementation of DC activities.	An indirect, permanent, long-term, secondary positive impact is expected in the radiological and non-radiological aspects from the provision of qualified personnel with the necessary expertise and qualifications for the implementation of the DC activities, which is expected to lead to a reduction of their impact on waters.	+1	+1

## Subsoil

**Table 5 - Subsoil - Expected Impacts of the tasks and measures for each Objectives**

Strategic goals, tasks and measures for each objectives	Analysis and Description of the Expected Impact	Assessment
<b><i>I. Safe management of spent nuclear fuel</i></b>		
<b>Responsible and safe management of SNF at Kozloduy NPP site</b>		
Maintaining WSFSF in safe condition. Renewal of WSFSF licence for SNF storage after 2024 for a new 10-year period	No impact on subsoil is expected.	0
Maintaining WSFSF in safe condition. Periodic renewal of WSFSF operating licence after 2034.	No impact on subsoil is expected.	0
<b>Safe management of SNF at Kozloduy NPP site - realistic scenario</b>		
SNF transportation from WWER from WSFSF and DSFSF for long-term storage and reprocessing as per current practices and existing contracts	No impact on subsoil is expected.	0
Maintaining readiness for SNF transportation from WWER-440 for long-term storage and reprocessing under a transport scheme via third countries	No impact on subsoil is expected.	0
Exploring SNF transportation and reprocessing options from WWER-1000 in EU countries with technological capabilities (France)	No impact on subsoil is expected.	0
SNF transportation from WWER-1000 for long-term storage and reprocessing as per current practice	No impact on subsoil is expected.	0
<b>Safe management of SNF at Kozloduy NPP site - optimistic scenario</b>		
SNF transportation of from WWER-1000 for long-term storage and reprocessing as per current practice.	No impact on subsoil is expected.	0
SNF transportation from WWER-1000 for long-term storage and reprocessing.	No impact on subsoil is expected.	0
<b>Safe management of SNF at Kozloduy NPP site</b>		
Licensing of DSFSF extension for SNF storage from WWER-1000, selection of containers for dry storage	No impact on subsoil is expected.	0
Amendment to WSFSF licence	No impact on subsoil is expected.	0
<b>Safe management of SNF at Kozloduy NPP site</b>		
Updated assessment of the capacity of WWER-1000 dry spent fuel storage facility	No impact on subsoil is expected.	0
<b><i>II. Responsible and safe management of RAW</i></b>		
<b>Responsible and safe management of HLW at Kozloduy NPP site</b>		
Reconciliation of methodology for determining the quantity and characteristics of RAW from reprocessing SNF from WWER-440 and WWER-1000	No impact on subsoil is expected.	0
Reconciliation of methodology for determining the quantity and characteristics of RAW from reprocessing SNF from WWER-1000	No impact on subsoil is expected.	0

Strategic goals, tasks and measures for each objectives	Analysis and Description of the Expected Impact	Assessment
Preparation of a long-term plan for the construction of a repository for interim storage of vitrified HLW and other RAW from SNF reprocessing	The measure has no direct impact on the subsoil. The implementation of the plan may have negative impacts on the subsoil	0
<b>Safe management of low- and intermediate-level active RAW from Kozloduy NPP Units 5 and 6</b>		
Improvement of efficiency in separating RAW by its radiation, physical and chemical characteristics, and achieving compliance with RAW acceptance criteria	No impact on subsoil is expected.	0
Minimization of RAW generation	The measure has no direct impact on the subsoil, but may have indirect positive impacts from the reduced risk of radioactive contamination of other components of the environment that may be related to the subsoil	+1
Enhancing safety in the storage and management of liquid and solid historical RAW	The measure has no direct impact on the subsoil, but may have indirect positive impacts from the reduced risk of radioactive contamination of other components of the environment that may be related to the subsoil	+1
<b>Achieving and maintaining sustainability in RAW management</b>		
Ensuring safe and efficient RAW storage in the interim storage facilities of SE RAW and its subsequent transportation conditioning and disposal	The measure has no direct impact on the subsoil, but may have indirect positive impacts from the reduced risk of radioactive contamination of other components of the environment that may be related to the subsoil.	+1
Construction of NRRAW for low- and intermediate-level waste	Insignificant, local negative impacts on the subsoil are possible as a result of construction activities.	-1
<b>DC of SD “PRRAW-Novı Han” by a combination of delayed dismantling and option for personnel access to the facility.</b>		
Preparation of documents for issuing DC licence. Safe and effective DC	No impact on subsoil is expected.	0
Safe management of RAW from previous activities	The measure has no direct impact on the subsoil, but may have indirect positive impacts from the reduced risk of radioactive contamination of other components of the environment that may be related to the subsoil	+1
<b>III. Disposal of HLW, MARAW and SCRS cat. 2b and 3</b>		
<b>DGR Construction</b>		
Activities under Annex 6	An impact is expected, but due to insufficient detailing of the tasks, an impact assessment is not possible. There is insufficient information to determine the impact.	=

Strategic goals, tasks and measures for each objectives	Analysis and Description of the Expected Impact	Assessment
<b>Borehole disposal of spent and closed radioactive sources (SCRS)</b>		
Planning and implementation of a borehole disposal concept	An impact is expected, but due to insufficient detailing of the tasks, an impact assessment is not possible. There is insufficient information to determine the impact.	=
Packing	The measure has no direct impact on the subsoil, but may have indirect positive impacts from the reduced risk of radioactive contamination of other components of the environment that may be related to the subsoil.	+1
<b>IV. DC of BAS IRT 2000 research reactor</b>		
<b>DC of BAS IRT 2000 research reactor</b>		
Preparatory activities for DC	No impact on subsoil is expected.	0
DC activities	No impact on subsoil is expected.	0
<b>V. Decommissioning of Units 1-4 of Kozloduy NPP</b>		
<b>DC of units by continual dismantling</b>		
Ensuring safe and effective DC. Temporary storage of generated RAW and its subsequent transportation, conditioning and disposal	Insignificant, local negative impacts on the subsoil are possible as a result of construction activities, related to the disposal of RAW	-1
<b>VI. Decommissioning of Units 5 and 6 of Kozloduy NPP and WSFSF</b>		
<b>Decommissioning of Units 5 and 6 of Kozloduy NPP</b>		
Development of pre-concept for DC of units 5 and 6 of Kozloduy NPP	No impact on subsoil is expected.	0
Development of DC plan for Units 5 and 6 of Kozloduy NPP	No impact on subsoil is expected.	0
<b>DC of WSFSF</b>		
Development of pre-concept and plan for DC	No impact on subsoil is expected.	0
Execution of DC activities	An impact is expected, but due to insufficient detailing of the tasks, an impact assessment is not possible. There is insufficient information to determine the impact.	0
<b>VII. Adequate financial and human resources</b>		
<b>Ensuring adequate financial resources to implement the high level RAW management and decommissioning programmes.</b>		
Ensuring a long-term mechanism to accumulate funds.	No impact on subsoil is expected.	0
Methodology for determining the costs of financing the DC of Units 5 and 6 of Kozloduy NPP.	No impact on subsoil is expected.	0
Strategy for investment of financial assets of NFDF, RAW fund and DGR construction target fund	No impact on subsoil is expected.	0
Sufficient funds accumulated		0

Strategic goals, tasks and measures for each objectives	Analysis and Description of the Expected Impact	Assessment
<b>Ensuring and maintaining sufficient human resources by the licensee to fulfil its safety obligations in SNF and RAW management and DC.</b>		
Ensuring sufficient and qualified personnel for implementation of SNF and RAW management activities	No impact on subsoil is expected.	0
Ensuring sufficient and qualified personnel for implementation of DC activities.	No impact on subsoil is expected.	0

## Soil

**Table 6 - Soil - Expected Impacts of the tasks and measures for each objective**

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
<b>I. Safe management of spent nuclear fuel</b>			
<b>Responsible and safe management of SNF at Kozloduy NPP site</b>			
Maintaining WSFSF in safe condition. Renewal of WSFSF licence for SNF storage after 2024 for a new 10-year period	An indirect positive impact on the soils can be expected in the radiological aspect from the introduction of new, more modern measures and reliable safety systems in the area of WSFSF and beyond. No impact is expected in the non-radiological aspect	+1	0
Maintaining WSFSF in safe condition. Periodic renewal of WSFSF operating licence after 2034.	No impact on soil is expected.	0	0
<b>Safe management of SNF at Kozloduy NPP site - realistic scenario</b>			
SNF transportation from WWER from WSFSF and DSFSF for long-term storage and reprocessing as per current practices and existing contracts	An indirect, permanent and long-term positive impact can be expected on soils in the radiological aspect from reducing the amount of SNF on the site and therefore reducing the risk of contamination. No impact is expected in the non-radiological aspect	+1	0
Maintaining readiness for SNF transportation from WWER-440 for long-term storage and reprocessing under a transport scheme via third countries	No impact on soil is expected.	0	0
Exploring SNF transportation and reprocessing options from WWER-1000 in EU countries with technological capabilities	No impact on soil is expected.	0	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
(France)			
SNF transportation from WWER-1000 for long-term storage and reprocessing as per current practice	An indirect, permanent and long-term positive impact can be expected on soils in the radiological aspect from reducing the amount of SNF on the site and therefore reducing the risk of contamination. No impact is expected in the non-radiological aspect other than "negligible" as a result of transport activities	+1	0
<b>Safe management of SNF at Kozloduy NPP site - optimistic scenario</b>			
SNF transportation of from WWER-1000 for long-term storage and reprocessing as per current practice.	No impact on soil is expected.	0	0
SNF transportation from WWER-1000 for long-term storage and reprocessing.	An indirect, permanent and long-term positive impact can be expected on soils in the radiological aspect from reducing the amount of SNF on the site and therefore reducing the risk of contamination. No impact is expected in the non-radiological aspect other than "negligible" as a result of transport activities	+1	0
<b>Safe management of SNF at Kozloduy NPP site</b>			
Licensing of DSFSF extension for SNF storage from WWER-1000, selection of containers for dry storage	No impact on soil is expected.	0	0
Amendment to WSFSF licence	No impact on soil is expected.	0	0
<b>Safe management of SNF at Kozloduy NPP site</b>			
Updated assessment of the capacity of WWER-1000 dry spent fuel storage facility	No impact on soil is expected.	0	0
<b>II. Responsible and safe management of RAW</b>			
<b>Responsible and safe management of HLW at Kozloduy NPP site</b>			
Reconciliation of methodology for determining the quantity and characteristics of RAW from reprocessing SNF from WWER-440 and WWER-1000	No impact on soil is expected.	0	0
Reconciliation of methodology for determining the quantity and characteristics of RAW from reprocessing SNF from WWER-1000	No impact on soil is expected.	0	0
Preparation of a long-term plan for the construction of a	No impact on soil is expected.	0	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
repository for interim storage of vitrified HLW and other RAW from SNF reprocessing			
<b>Safe management of low- and intermediate-level active RAW from Kozloduy NPP Units 5 and 6</b>			
Improvement of efficiency in separating RAW by its radiation, physical and chemical characteristics, and achieving compliance with RAW acceptance criteria	An indirect permanent and long-term positive impact can be expected on soils in the radiological aspect from improving the efficiency in separating RAW according to their radiological, physical and chemical characteristics and achieving compliance with RAW acceptance criteria and therefore reducing the risk of contamination. No impact is expected in the non-radiological aspect other than "negligible" as a result of transport activities	+1	0
Minimization of RAW generation	No impact on soil is expected.	0	0
Enhancing safety in the storage and management of liquid and solid historical RAW	An indirect permanent and long-term positive impact is expected on the soils in the radiological aspect after increasing the safety of storage and management of liquid and solid historical RAW. No impact is expected in the non-radiological aspect	+1	0
<b>Achieving and maintaining sustainability in RAW management</b>			
Ensuring safe and efficient RAW storage in the interim storage facilities of SE RAW and its subsequent transportation conditioning and disposal	No impact is expected on groundwater, as the measure does not include activities that would affect groundwater	0	0
Construction of NRRAW for low- and intermediate-level waste	According to the EIA report of the NRRAW, no impact is expected on soils during construction, during operation, or during close-down of the NRRAW.	0	0
<b>DC of SD "PRRAW-Novi Han" by a combination of delayed dismantling and option for personnel access to the facility.</b>			
Preparation of documents for issuing DC licence. Safe and effective DC	No impact is expected on soils, as the measure does not include activities that would affect soils	0	0
Safe management of RAW from previous activities	No impact is expected on soils, as the measure does not include activities that would affect soils	0	0
<b>III. Disposal of HLW, MARAW and SCRS cat. 2b and 3</b>			
<b>DGR Construction</b>			
Activities under Annex 6	It is expected that there will be an impact, but due to insufficient detailing of the tasks - as of now, there is no concept developed in detail yet, a full assessment of the impact is not possible.	=	=

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
<b>Borehole disposal of spent and closed radioactive sources (SCRS)</b>			
Planning and implementation of a borehole disposal concept	It is expected that there will be an impact, but due to insufficient detailing of the tasks - as of now, there is no concept developed in detail yet, a full assessment of the impact is not possible.	=	=
Packing	An indirect positive impact is expected in the radiological aspect as a result of reducing the risks of radioactive contamination of the soil. The planned deep borehole disposal may have a negative impact on the soils, but due to the insufficient detailing of the tasks - as of now, there is no concept developed in detail yet, a full assessment of the impact is not possible.	+1	=
<b>IV. DC of BAS IRT 2000 research reactor</b>			
<b>DC of BAS IRT 2000 research reactor</b>			
Preparatory activities for DC	No impact on soil is expected.	0	0
DC activities	No impact on soil is expected.	0	0
<b>V. Decommissioning of Units 1-4 of Kozloduy NPP</b>			
<b>DC of units by continual dismantling</b>			
Ensuring safe and effective DC. Temporary storage of generated RAW and its subsequent transportation, conditioning and disposal	An insignificant temporary and short-term local negative impact in the radiological and non-radiological aspects is expected during the dismantling of structures, systems and components.	-1	-1
<b>VI. Decommissioning of Units 5 and 6 of Kozloduy NPP and WSFSF</b>			
<b>Decommissioning of Units 5 and 6 of Kozloduy NPP</b>			
Development of pre-concept for DC of units 5 and 6 of Kozloduy NPP	No impact on soil is expected.	0	0
Development of DC plan for Units 5 and 6 of Kozloduy NPP	No impact on soil is expected.	0	0
<b>DC of WSFSF</b>			
Development of pre-concept and plan for DC	No impact on soil is expected.	0	0
Execution of DC activities	It is expected that there will be an impact, but due to insufficient detailing of the tasks (as of now, there is no DC plan developed in detail yet), a full assessment of the impact is not possible	=	=
<b>VII. Adequate financial and human resources</b>			
<b>Ensuring adequate financial resources to implement the high level RAW management and decommissioning programmes.</b>			

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
Ensuring a long-term mechanism to accumulate funds.	No impact on soil is expected.	0	0
Methodology for determining the costs of financing the DC of Units 5 and 6 of Kozloduy NPP.	No impact on soil is expected.	0	0
Strategy for investment of financial assets of NFDF, RAW fund and DGR construction target fund	No impact on soil is expected.	0	0
Sufficient funds accumulated	No impact on soil is expected.	0	0
<b>Ensuring and maintaining sufficient human resources by the licensee to fulfil its safety obligations in SNF and RAW management and DC.</b>			
Ensuring sufficient and qualified personnel for implementation of SNF and RAW management activities	No impact on soil is expected.	0	0
Ensuring sufficient and qualified personnel for implementation of DC activities.	No impact on soil is expected.	0	0

## Landscape

**Table 7 - Landscape - Expected Impacts of the tasks and measures for each objective**

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Assessment
<b><i>I. Safe management of spent nuclear fuel</i></b>		
<b>Responsible and safe management of SNF at Kozloduy NPP site</b>		
Maintaining WSFSF in safe condition. Renewal of WSFSF licence for SNF storage after 2024 for a new 10-year period	An indirect positive impact on the landscape components can be expected from the introduction of new, more modern measures and reliable safety systems in the area of WSFSF and beyond.	+1
Maintaining WSFSF in safe condition. Periodic renewal of WSFSF operating licence after 2034.	No impact on landscape is expected.	0
<b>Safe management of SNF at Kozloduy NPP site - realistic scenario</b>		
SNF transportation from WWER from WSFSF and DSFSF	An indirect, permanent and long-term positive impact can be expected on the landscape	+1

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Assessment
for long-term storage and reprocessing as per current practices and existing contracts	components from reducing the amount of SNF on the site and therefore reducing the risk of contamination.	
Maintaining readiness for SNF transportation from WWER-440 for long-term storage and reprocessing under a transport scheme via third countries	No impact on landscape is expected.	0
Exploring SNF transportation and reprocessing options from WWER-1000 in EU countries with technological capabilities (France)	No impact on landscape is expected.	0
SNF transportation from WWER-1000 for long-term storage and reprocessing as per current practice	An indirect, permanent and long-term positive impact can be expected on the landscape components from reducing the amount of SNF on the site and therefore reducing the risk of contamination.	+1
<b>Safe management of SNF at Kozloduy NPP site - optimistic scenario</b>		
SNF transportation of from WWER-1000 for long-term storage and reprocessing as per current practice.	No impact on landscape is expected.	0
SNF transportation from WWER-1000 for long-term storage and reprocessing.	An indirect, permanent and long-term positive impact can be expected on the landscape components from reducing the amount of SNF on the site and therefore reducing the risk of contamination	+1
<b>Safe management of SNF at Kozloduy NPP site</b>		
Licensing of DSFSF extension for SNF storage from WWER-1000, selection of containers for dry storage	No impact on landscape is expected.	0
Amendment to WSFSF licence	No impact on landscape is expected.	0
<b>Safe management of SNF at Kozloduy NPP site</b>		
Updated assessment of the capacity of WWER-1000 dry spent fuel storage facility	No impact on landscape is expected.	0
<b>II. Responsible and safe management of RAW</b>		
<b>Responsible and safe management of HLW at Kozloduy NPP site</b>		
Reconciliation of methodology for determining the quantity and characteristics of RAW from reprocessing SNF from WWER-440 and WWER-1000	No impact on landscape is expected.	0
Reconciliation of methodology for determining the quantity and characteristics of RAW from reprocessing SNF from	No impact on landscape is expected.	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Assessment
<b>WVER-1000</b> Preparation of a long-term plan for the construction of a repository for interim storage of vitrified HLW and other RAW from SNF reprocessing	No impact on landscape is expected.	<b>0</b>
<b>Safe management of low- and intermediate-level active RAW from Kozloduy NPP Units 5 and 6</b>		
Improvement of efficiency in separating RAW by its radiation, physical and chemical characteristics, and achieving compliance with RAW acceptance criteria	No impact is expected on the landscape components other than "negligible" as a result of transport activities	<b>0</b>
Minimization of RAW generation	No impact on the landscape is expected.	<b>0</b>
Enhancing safety in the storage and management of liquid and solid historical RAW	An indirect permanent and long-term positive impact is expected on the landscape components after increasing the safety of storage and management of liquid and solid historical RAW.	<b>+1</b>
<b>Achieving and maintaining sustainability in RAW management</b>		
Ensuring safe and efficient RAW storage in the interim storage facilities of SE RAW and its subsequent transportation conditioning and disposal	Insignificant, local negative impacts can be expected on the landscape components as a result of construction activities.	<b>-1</b>
Construction of NRRAW for low- and intermediate-level waste	Insignificant, local negative impacts can be expected on the landscape components as a result of construction activities.	<b>-1</b>
<b>DC of SD “PRRAW-Novı Han” by a combination of delayed dismantling and option for personnel access to the facility.</b>		
Preparation of documents for issuing DC licence. Safe and effective DC	The measure will not have an impact on the landscape components.	<b>0</b>
Safe management of RAW from previous activities	A permanent and long-term positive impact on landscape components is expected after the preparation of the plans and projects and their implementation to achieve safe management of RAW from previous activities.	<b>+1</b>
<b>III. Disposal of HLW, MARAW and SCRS cat. 2b and 3</b>		
<b>DGR Construction</b>		
Activities under Annex 6	It is expected that there will be an impact, but due to insufficient detailing of the tasks - as of now, there is no concept developed in detail yet, a full assessment of the impact is not possible	<b>=</b>
<b>Borehole disposal of spent and closed radioactive sources (SCRS)</b>		
Planning and implementation of a borehole disposal concept	It is expected that there will be an impact, but due to insufficient detailing of the tasks - as of now, there is no concept developed in detail yet, a full assessment of the impact is not possible.	<b>=</b>
Packing	An indirect positive impact is expected in the radiological aspect as a result of reducing the risks of	<b>+1</b>

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Assessment
	radioactive contamination of the landscape components. The planned deep borehole disposal may have a negative impact on the landscape components, but due to the insufficient detailing of the tasks - as of now, there is no concept developed in detail yet, a full assessment of the impact is not possible.	
<b>IV. DC of BAS IRT 2000 research reactor</b>		
<b>DC of BAS IRT 2000 research reactor</b>		
Preparatory activities for DC	No impact on landscape is expected.	0
DC activities	No impact on landscape is expected.	0
<b>V. Decommissioning of Units 1-4 of Kozloduy NPP</b>		
<b>DC of units by continual dismantling</b>		
Ensuring safe and effective DC. Temporary storage of generated RAW and its subsequent transportation, conditioning and disposal	An insignificant temporary and short-term local negative impact is expected during the dismantling of structures, systems and components.	-1
<b>VI. Decommissioning of Units 5 and 6 of Kozloduy NPP and WSFSF</b>		
<b>Decommissioning of Units 5 and 6 of Kozloduy NPP</b>		
Development of pre-concept for DC of units 5 and 6 of Kozloduy NPP	No impact on landscape is expected.	0
Development of DC plan for Units 5 and 6 of Kozloduy NPP	No impact on landscape is expected.	0
<b>DC of WSFSF</b>		
Development of pre-concept and plan for DC	No impact on landscape is expected.	0
Execution of DC activities	It is expected that there will be an impact, but due to insufficient detailing of the tasks (as of now, there is no DC plan developed in detail yet), a full assessment of the impact is not possible	=
<b>VII. Adequate financial and human resources</b>		
<b>Ensuring adequate financial resources to implement the high level RAW management and decommissioning programmes.</b>		
Ensuring a long-term mechanism to accumulate funds.	No impact on landscape is expected.	0
Methodology for determining the costs of financing the DC of Units 5 and 6 of Kozloduy NPP.	No impact on landscape is expected.	0
Strategy for investment of financial assets of NFDF, RAW fund and DGR construction target fund	No impact on landscape is expected.	0
Sufficient funds accumulated	No impact on landscape is expected.	
<b>Ensuring and maintaining sufficient human resources by the licensee to fulfil its safety obligations in SNF and RAW management and DC.</b>		
Ensuring sufficient and qualified personnel for	No impact on landscape is expected.	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Assessment
implementation of SNF and RAW management activities		
Ensuring sufficient and qualified personnel for implementation of DC activities.	No impact on landscape is expected.	0

## Biodiversity

### Flora

**Table 8 - Flora - Expected Impacts of the tasks and measures for each Strategic Objectives**

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-radiological
<b><i>I. Safe management of spent nuclear fuel</i></b>			
<b>Responsible and safe management of SNF at Kozloduy NPP site</b>			
Maintaining WSFSF in safe condition. Renewal of WSFSF licence for SNF storage after 2024 for a new 10-year period	Maintaining the WSFSF in a safe condition and introducing new, more modern measures and reliable safety systems in the WSFSF area and beyond will have a direct and indirect, long-term and permanent insignificant positive impact on the flora in the radiological aspect. No impact is expected in the non-radiological aspect.	+1	0
Maintaining WSFSF in safe condition. Periodic renewal of WSFSF operating licence after 2034.	Maintaining the WSFSF in a safe condition and introducing new, more modern measures and reliable safety systems in the WSFSF area and beyond will have a direct and indirect, long-term and permanent insignificant positive impact on the flora in the radiological aspect. No impact is expected in the non-radiological aspect.	+1	0
<b>Safe management of SNF at Kozloduy NPP site - realistic scenario</b>			
SNF transportation from WWER from WSFSF and DSFSF for long-term storage and reprocessing as per	A direct and indirect, long-term and permanent insignificant positive impact is expected on the flora in the radiological aspect from reducing the amount of SNF at the site.	+1	-1

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-radiological
current practices and existing contracts	In the non-radiological aspect, an insignificant local indirect temporary negative impact is expected with regard to the flora due to dust and emissions from transport activities.		
Maintaining readiness for SNF transportation from WWER-440 for long-term storage and reprocessing under a transport scheme via third countries	A direct and indirect, long-term and permanent insignificant positive impact is expected on the flora in the radiological aspect from reducing the amount of SNF at the site. In the non-radiological aspect, an insignificant local indirect temporary negative impact is expected with regard to the flora due to dust and emissions from transport activities.	+1	-1
Exploring SNF transportation and reprocessing options from WWER-1000 in EU countries with technological capabilities (France)	No impact on the flora is expected from the feasibility study as it is an administrative measure, without a physical dimension and does not affect the environment. When carrying out transportation activities, the following is expected: - a direct and indirect, long-term and permanent insignificant positive impact on the flora in the radiological aspect from reducing the amount of SNF at the site; - an insignificant local indirect temporary negative impact in the non-radiological aspect due to dust and emissions from transport activities.	0	0
SNF transportation from WWER-1000 for long-term storage and reprocessing as per current practice	A direct and indirect, long-term and permanent insignificant positive impact is expected on the flora in the radiological aspect from reducing the amount of SNF at the site. In the non-radiological aspect, an insignificant local indirect temporary negative impact is expected with regard to the flora due to dust and emissions from transport activities.	+1	-1
<b>Safe management of SNF at Kozloduy NPP site - optimistic scenario</b>			
SNF transportation of from WWER-1000 for long-term storage and reprocessing as per current practice.	A direct and indirect, long-term and permanent insignificant positive impact is expected on the flora in the radiological aspect from reducing the amount of SNF at the site. In the non-radiological aspect, an insignificant local indirect temporary negative impact is expected with regard to the flora due to dust and emissions from transport activities.	+1	-1
SNF transportation from WWER-1000 for long-term storage and reprocessing.	A direct and indirect, long-term and permanent insignificant positive impact is expected on the flora in the radiological aspect from reducing the amount of SNF at the site. In the non-radiological aspect, an insignificant local indirect temporary negative impact is expected with regard to the flora due to dust and emissions from transport activities.	+1	-1
<b>Safe management of SNF at Kozloduy NPP site</b>			
Licensing of DSFSF extension for SNF storage from WWER-1000, selection of containers for dry storage	An indirect permanent and long-term positive impact is expected in the radiological aspect on the flora when choosing containers that meet the modern higher requirements. No impact is expected in the non-radiological aspect.	+1	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-radiological
Amendment to WSFSF licence	No impact on the flora is expected, as this is primarily an administrative measure with no physical dimension with the potential to have an impact.	0	0
<b>Safe management of SNF at Kozloduy NPP site</b>			
Updated assessment of the capacity of WWER-1000 dry spent fuel storage facility	No impact on the flora is expected, as this is primarily an administrative measure with no physical dimension with the potential to have an impact	0	0
<b>II. Responsible and safe management of RAW</b>			
<b>Responsible and safe management of HLW at Kozloduy NPP site</b>			
Reconciliation of methodology for determining the quantity and characteristics of RAW from reprocessing SNF from WWER-440 and WWER-1000	No impact on the flora is expected, as this is an administrative measure with no physical dimension with the potential to have an impact.	0	0
Reconciliation of methodology for determining the quantity and characteristics of RAW from reprocessing SNF from WWER-1000	No impact on the flora is expected, as this is an administrative measure with no physical dimension with the potential to have an impact.	0	0
Preparation of a long-term plan for the construction of a repository for interim storage of vitrified HLW and other RAW from SNF reprocessing	No impact on the flora is expected, as this is an administrative measure with no physical dimension with the potential to have an impact.	0	0
<b>Safe management of low- and intermediate-level active RAW from Kozloduy NPP Units 5 and 6</b>			
Improvement of efficiency in separating RAW by its radiation, physical and chemical characteristics, and achieving compliance with RAW acceptance criteria	As a result of the implementation of a program to improve the efficiency of separation of RAW, a direct and indirect permanent and long-term insignificant positive impact is expected on the flora in the radiological aspect. No impact is expected in the non-radiological aspect.	+1	0
Minimization of RAW generation	As a result of the minimization of the generation of RAW, a direct and indirect permanent and long-term insignificant positive impact is expected on the flora in the radiological aspect. No impact is expected in the non-radiological aspect.	+1	0
Enhancing safety in the storage and management of liquid and solid historical RAW	Through increasing the safety in the storage and management of liquid and solid historical RAW, a direct and indirect, long-term and permanent insignificant positive impact is expected on the flora in the radiological aspect. No impact is expected in the non-radiological aspect.	+1	0
	During extraction of sludge and sorbents, a local, short-term, reversible temporary, insignificant negative impact in terms of radiation is expected.	-1	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-radiological
<b>Achieving and maintaining sustainability in RAW management</b>			
Ensuring safe and efficient RAW storage in the interim storage facilities of SE RAW and its subsequent transportation conditioning and disposal	A direct and indirect, long-term and permanent insignificant positive impact is expected on the flora in the radiological aspect as a result of the implementation of the modernization program, ensuring the safe and efficient storage of RAW in the temporary storage facilities of the State Enterprise RAW and in the implementation of an effective technology for extraction and conditioning the solid phase from the liquid concentrate.	+1	0
Construction of NRRAW for low- and intermediate-level waste	According to the EIA report of the NRRAW, an insignificant negative impact is expected mainly during the construction, when the vegetation cover is removed within the boundaries of the construction sites. The construction of the NRRAW is not related to the loss of conservation-important plant species and habitats.  No radiation impact is expected during its construction, but after that a direct and indirect, long-term and permanent insignificant positive impact in the radiological aspect is expected on the flora.	0	-1
<b>DC of SD “PRRAW-Noví Han” by a combination of delayed dismantling and option for personnel access to the facility.</b>			
Preparation of documents for issuing DC licence. Safe and effective DC	When carrying out the preparatory activities for the decommissioning for partial release of RAW on the territory of SD „PRRAW- Noví Han”, as well as during the extraction of RAW and dismantling of the underground facilities, a direct, temporary and short-term, insignificant local negative impact is expected in the radiological aspect. No impact is expected on the flora in the non-radiological aspect.  When conducting restoration activities on the vacated terrains, no impact is expected on the flora in the radiological and non-radiological aspects.	-1	0
Safe management of RAW from previous activities	A permanent and long-term positive impact in the radiological aspect is expected after the preparation of the plans and projects and their implementation to achieve safe management of RAW from previous activities.  No non-radiological impact is expected.	+1	0
<b>III. Disposal of HLW, MARAW and SCRS cat. 2b and 3</b>			
<b>DGR Construction</b>			
Activities under Annex 6	To date, there is no concept developed in detail yet. Due to insufficient detailing of the tasks, the impact cannot be assessed.	=	=
<b>Borehole disposal of spent and closed radioactive sources (SCRS)</b>			

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-radiological
Planning and implementation of a borehole disposal concept	To date, there is no concept developed in detail yet. Due to insufficient detailing of the tasks, the impact cannot be assessed.	=	=
Packing	A permanent and long-term positive impact in the radiological aspect is expected after the development and implementation of the program for deep borehole disposal. No non-radiological impact is expected.	+1	0
<b>IV. DC of BAS IRT 2000 research reactor</b>			
<b>DC of BAS IRT 2000 research reactor</b>			
Preparatory activities for DC	During the implementation of the activities related to the management of RAW during the DC (by the State Enterprise RAW), in accordance with the DC plan, a temporary and short-term, localized within the site, insignificant negative impact is expected in the radiological aspect. No non-radiological impact is expected.	0	0
DC activities	No radiological impact is expected. The activities will be limited within the area of the site, therefore no non-radiological impact on the flora is expected.	0	0
<b>V. Decommissioning of Units 1-4 of Kozloduy NPP</b>			
<b>DC of units by continual dismantling</b>			
Ensuring safe and effective DC. Temporary storage of generated RAW and its subsequent transportation, conditioning and disposal	An insignificant temporary and short-term local negative impact in terms of radiation is expected during the dismantling of the SSC and during the implementation of the reconstruction of the Reactor compartment and delivery of containers. No non-radiological impact is expected from these activities on the flora, as they will be carried out within the area of the site.	-1	0
	A direct and indirect, long-term and permanent insignificant positive impact in terms of radiation is expected from a reduction in the volume of RAW for disposal and from the deactivation of premises and buildings. A direct, long-term, permanent, local, positive impact in the radiological and non-radiological aspects is expected from reclamation of the soils around the Units.	+1	+1
<b>VI. Decommissioning of Units 5 and 6 of Kozloduy NPP and WSFSF</b>			
<b>Decommissioning of Units 5 and 6 of Kozloduy NPP</b>			
Development of pre-concept for DC of units 5 and 6 of Kozloduy NPP	No impact is expected as a concept is being developed.	0	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-radiological
Development of DC plan for Units 5 and 6 of Kozloduy NPP	No impact is expected as a plan is being developed.	0	0
<b>DC of WSFSF</b>			
Development of pre-concept and plan for DC	No impact is expected as a concept and a plan are being developed.	0	0
Execution of DC activities	Due to insufficient detailing of the tasks (as of now, there is no DC plan developed in detail yet), a full assessment of the impact is not possible.	=	=
<b>VII. Adequate financial and human resources</b>			
<b>Ensuring adequate financial resources to implement the high level RAW management and decommissioning programmes.</b>			
Ensuring a long-term mechanism to accumulate funds.	An administrative measure, no impact is expected on the flora.	0	0
Methodology for determining the costs of financing the DC of Units 5 and 6 of Kozloduy NPP.	An administrative measure, no impact is expected on the flora.	0	0
Strategy for investment of financial assets of NFDF, RAW fund and DGR construction target fund	An administrative measure, no impact is expected on the flora.	0	0
Sufficient funds accumulated	An administrative measure, no impact is expected on the flora.	0	0
<b>Ensuring and maintaining sufficient human resources by the licensee to fulfil its safety obligations in SNF and RAW management and DC.</b>			
Ensuring sufficient and qualified personnel for implementation of SNF and RAW management activities	An indirect, permanent, long-term, secondary positive impact is expected in the radiological and non-radiological aspects from the provision of qualified personnel with the necessary expertise and qualifications for the implementation of the DC activities, which is expected to also lead to a reduction of their impact on the environment as a whole, including upon the flora.	+1	+1
Ensuring sufficient and qualified personnel for implementation of DC activities.	An indirect, permanent, long-term, secondary positive impact is expected in the radiological and non-radiological aspects from the provision of qualified personnel with the necessary expertise and qualifications for the implementation of the DC activities, which is expected to also lead to a reduction of their impact on the environment as a whole, including upon the flora.	+1	+1

**Fauna – Invertebrates**

**Table 9 - Fauna – Invertebrates - Expected Impacts of the tasks and measures for each Strategic Objectives**

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-radiological
<b><i>I. Safe management of spent nuclear fuel</i></b>			
<b>Responsible and safe management of SNF at Kozloduy NPP site</b>			
Maintaining WSFSF in safe condition. Renewal of WSFSF licence for SNF storage after 2024 for a new 10-year period	An indirect and long-term positive impact in the radiological aspect is expected as a result of ensuring a minimum frequency of operational activities related to safety and limiting the possibility of environmental pollution with radionuclides and hence reducing the impacts on invertebrates. The impact will be both local within the WSFSF and regional in the area around the Kozloduy NPP. No impact is expected in the non-radiological aspect. License renewal is a purely administrative measure with no impact.	+1	0
Maintaining WSFSF in safe condition. Periodic renewal of WSFSF operating licence after 2034.	An indirect and long-term positive impact in the radiological aspect is expected as a result of ensuring a minimum frequency of operational activities related to safety and limiting the possibility of environmental pollution with radionuclides and hence reducing the impacts on invertebrates. The impact will be both local within the WSFSF, and regional in the area around the WSFSF. No impact is expected in the non-radiological aspect. License renewal is a purely administrative measure with no impact.	+1	0
<b>Safe management of SNF at Kozloduy NPP site - realistic scenario</b>			
SNF transportation from WWER from WSFSF and DSFSF for long-term storage and reprocessing as per current practices and existing contracts	No impact is expected on invertebrates. An indirect, long-term, positive impact in the radiological aspect is expected on invertebrates as a result of reducing the amount of SNF at the site and preventing contamination of the environment with radionuclides. No impact is expected in the non-radiological aspect.	+1	0
Maintaining readiness for SNF transportation from WWER-440 for long-term storage and reprocessing under a transport scheme via third countries	The measure is of administrative nature and without impact in the radiological and non-radiological aspect.	0	0
Exploring SNF transportation and reprocessing options from WWER-1000 in EU countries with technological	The measure is of administrative nature and without impact in the radiological and non-radiological aspect.	0	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-radiological
capabilities (France)			
SNF transportation from WWER-1000 for long-term storage and reprocessing as per current practice	<p>No impact is expected on invertebrates.</p> <p>An indirect, long-term, positive impact in the radiological aspect is expected on invertebrates as a result of reducing the amount of SNF at the site and preventing contamination of the environment with radionuclides.</p> <p>No impact is expected in the non-radiological aspect.</p>	+1	0
<b>Safe management of SNF at Kozloduy NPP site - optimistic scenario</b>			
SNF transportation of from WWER-1000 for long-term storage and reprocessing as per current practice.	<p>No direct impact on the environmental components and factors is expected.</p> <p>An indirect long-term positive impact is expected from the implementation of the concluded agreement for the removal of SNF after receiving approval from the EC, due to the reduction of SNF quantities in Bulgaria, which is a factor in preventing contamination of the environment with radionuclides.</p> <p>No impact is expected in the non-radiological aspect.</p>	+1	0
SNF transportation from WWER-1000 for long-term storage and reprocessing.	<p>No direct impact on the environmental components and factors is expected.</p> <p>An indirect long-term positive impact is expected from the implementation of the concluded agreement for the removal of SNF after receiving approval from the EC, due to the reduction of SNF quantities in Bulgaria, which is a factor in preventing contamination of the environment with radionuclides.</p> <p>No impact is expected in the non-radiological aspect.</p>	+1	0
<b>Safe management of SNF at Kozloduy NPP site</b>			
Licensing of DSFSF extension for SNF storage from WWER-1000, selection of containers for dry storage	<p>No impact is expected on invertebrates.</p> <p>An indirect long-term positive impact is expected in the radiological aspect, depending on the choice of containers that will meet the modern stricter requirements and guarantee the protection of the environment, including invertebrates, from contamination with radionuclides.</p> <p>No impact is expected in the non-radiological aspect.</p> <p>The licensing activities have no impact on invertebrates.</p>	+1	0
Amendment to WSFSF licence	The license modification activities have no impact on invertebrates.	0	0
<b>Safe management of SNF at Kozloduy NPP site</b>			
Updated assessment of the capacity of WWER-1000 dry	Updating the capacity assessment is a purely administrative task with no impact on	0	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-radiological
spent fuel storage facility	invertebrates.		
<b>II. Responsible and safe management of RAW</b>			
<b>Responsible and safe management of HLW at Kozloduy NPP site</b>			
Reconciliation of methodology for determining the quantity and characteristics of RAW from reprocessing SNF from WWER-440 and WWER-1000	A purely administrative task with no impact on invertebrates.	0	0
Reconciliation of methodology for determining the quantity and characteristics of RAW from reprocessing SNF from WWER-1000	A purely administrative task with no impact on invertebrates.	0	0
Preparation of a long-term plan for the construction of a repository for interim storage of vitrified HLW and other RAW from SNF reprocessing	The absence of details on the specific tasks and the territorial scope for the construction of an interim storage facility does not allow us at this stage to assess the impact in the radiological and non-radiological aspect.	=	=
<b>Safe management of low- and intermediate-level active RAW from Kozloduy NPP Units 5 and 6</b>			
Improvement of efficiency in separating RAW by its radiation, physical and chemical characteristics, and achieving compliance with RAW acceptance criteria	No impact is expected on invertebrates. Improving RAW separation efficiency will have an indirect long-term positive impact on invertebrates by preventing accidental contamination of the environment with radionuclides. No impact is expected in the non-radiological aspect.	+1	0
Minimization of RAW generation	No impact is expected on invertebrates. The development and implementation of a Program for the Management and Radiation Control of wastes that are candidates for exemption from regulation will have an indirect long-term positive impact on invertebrates through the prevention of accidental contamination of the environment with radionuclides. No impact is expected in the non-radiological aspect.	+1	0
Enhancing safety in the storage and management of liquid and solid historical RAW	No impact is expected on invertebrates. Improving RAW storage and management safety will have an indirect long-term positive impact on invertebrates as a result of enhancing the safety and preventing accidental contamination of the environment with radionuclides. No impact is expected in the non-radiological aspect.	+1	0
<b>Achieving and maintaining sustainability in RAW management</b>			
Ensuring safe and efficient RAW storage in the interim storage facilities of SE RAW and its subsequent	No impact is expected on invertebrates. An indirect, long-term positive impact is expected on invertebrates in the radiological aspect	+1	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-radiological
transportation conditioning and disposal	as a result of the implementation of the modernization program, ensuring the safe and efficient storage of RAW in the temporary storage facilities of the State Enterprise RAW, and the implementation of an effective technology for extraction and conditioning the solid phase from the liquid concentrate. The planned activities will minimize impacts on the environment by preventing contamination with radionuclides. No impact is expected in the non-radiological aspect.		
Construction of NRRAW for low- and intermediate-level waste	Adherence to the measures specified in the EIA report of the NRRAW during the construction of the first stage guarantee an insignificant negative impact on invertebrates in the non-radiological aspect. The stage of commissioning, operation and close-down does not involve the occurrence of additional impacts in non-radiological and radiological aspects. The absence of impacts will be guaranteed by compliance with the close-down plans and all applicable Bulgarian and international legal requirements and practices.	0	0
<b>DC of SD “PRRAW-Novı Han” by a combination of delayed dismantling and option for personnel access to the facility.</b>			
Preparation of documents for issuing DC licence. Safe and effective DC	No impact is expected in the radiological aspect. In the non-radiological aspect, an insignificant, indirect, temporary and short-term negative impact is expected with a limited territorial scope - within the site, during the preparatory activities for the DC for the partial release of RAW on the territory of the SD „PRRAW-Novı Han” during the extraction of RAW and dismantling of the underground facilities, as well as during the restoration of the vacated grounds. The impact will be expressed in a temporary change of the existing environmental conditions in the habitats of invertebrates in the affected area as a result of dismantling and other technological activities.	0	-1
Safe management of RAW from previous activities	The development of the plans and projects and their implementation with a view to achieving safe management of RAW from previous activities will result in a negligible long-term positive impact in the radiological aspect on invertebrates due to the prevention of contamination of the environment with radionuclides. No impact is expected in the non-radiological aspect.	+1	0
<b>III. Disposal of HLW, MARAW and SCRS cat. 2b and 3</b>			
<b>DGR Construction</b>			
Activities under Annex 6	The absence of details on the specific tasks and the territorial scope for the construction of DGR does not allow us at this stage to assess the impact in the radiological and non-	=	=

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-radiological
	radiological aspect.		
<b>Borehole disposal of spent and closed radioactive sources (SCRS)</b>			
Planning and implementation of a borehole disposal concept	The absence of details on the planning of the specific tasks and the territorial scope in the implementation of the concept for deep borehole disposal does not allow us at this stage to assess the impact in the radiological and non-radiological aspect.	=	=
Packing	The absence of details on the Program for deep borehole disposal does not allow us at this stage to assess the impact in the radiological and non-radiological aspect.	=	=
<b>IV. DC of BAS IRT 2000 research reactor</b>			
<b>DC of BAS IRT 2000 research reactor</b>			
Preparatory activities for DC	The activities refer to the preparation of a draft Decision of the Council of Ministers on the cancellation of previous decisions of the Council of Ministers (332/1988 and 552/2001 Without relevance to the elements of the environment, and respectively without impact on invertebrates.	0	0
DC activities	All activities related to the dismantling of the structures, systems and components will take place on the territory of the research reactor and in an urbanized area. Natural habitats of invertebrate species are not affected, so no impacts are expected in the radiological and non-radiological aspects.	0	0
<b>V. Decommissioning of Units 1-4 of Kozloduy NPP</b>			
<b>DC of units by continual dismantling</b>			
Ensuring safe and effective DC. Temporary storage of generated RAW and its subsequent transportation, conditioning and disposal	The main activities and specific operations involved in the dismantling of the constructions, systems and components will take place on the territory of the Kozloduy NPP, and the storage of the generated RAW, their transportation, conditioning and disposal will take place in already constructed infrastructure facilities, therefore no impacts on invertebrates are expected in the radiological and non-radiological aspects. Negligible insignificant positive long-term impact on invertebrate fauna can be expected from the survey and reclamation of soils around Units 1-4, but they would not, in the foreseeable future, recover their qualities as favourable habitat for invertebrates. This gives us reason to consider the overall impact assessment as neutral with respect to the species.	0	0
<b>VI. Decommissioning of Units 5 and 6 of Kozloduy NPP and WSFSF</b>			
<b>Decommissioning of Units 5 and 6 of Kozloduy NPP</b>			

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-radiological
Development of pre-concept for DC of units 5 and 6 of Kozloduy NPP	The development of the concept is without relevance to the elements and factors of the environment, and therefore no impacts are expected in the radiological and non-radiological aspect.	0	0
Development of DC plan for Units 5 and 6 of Kozloduy NPP	The stage of development of a DC plan for Units 5 and 6 of the Kozloduy NPP is without relevance to the elements and factors of the environment, and therefore no impacts are expected in the radiological and non-radiological aspect.	0	0
<b>DC of WSFSF</b>			
Development of pre-concept and plan for DC	The stage of development of a preliminary concept and plan for the DC of WSFSF is without relevance to the elements and factors of the environment, and therefore no impacts are expected in the radiological and non-radiological aspect.	0	0
Execution of DC activities	It is expected that there will be an impact, but due to insufficient detailing of the tasks (as of now, there is no DC plan developed in detail yet), a full assessment of the impact is not possible.	=	=
<b>VII. Adequate financial and human resources</b>			
<b>Ensuring adequate financial resources to implement the high level RAW management and decommissioning programmes.</b>			
Ensuring a long-term mechanism to accumulate funds.	The measure is purely administrative and with no impact on invertebrates.	0	0
Methodology for determining the costs of financing the DC of Units 5 and 6 of Kozloduy NPP.	The measure is purely administrative and with no impact on invertebrates.	0	0
Strategy for investment of financial assets of NFDF, RAW fund and DGR construction target fund	The measure is purely administrative and with no impact on invertebrates.	0	0
Sufficient funds accumulated	The measure is purely administrative and with no impact on invertebrates.	0	0
<b>Ensuring and maintaining sufficient human resources by the licensee to fulfil its safety obligations in SNF and RAW management and DC.</b>			
Ensuring sufficient and qualified personnel for implementation of SNF and RAW management activities	No impact is expected in the non-radiological aspect. An indirect, long-term positive impact on the environment is expected, as sufficient and qualified personnel is a guarantee for protecting the environment, including invertebrates, from contamination with radionuclides during the planned activities.	+1	0
Ensuring sufficient and qualified personnel for implementation of DC activities.	No impact is expected in the non-radiological aspect. An indirect, long-term positive impact on the environment is expected, as sufficient and qualified personnel is a guarantee for protecting the environment, including invertebrates, from contamination with radionuclides during the planned activities.	+1	0

**Fauna – Vertebrates (Fish)**

**Table 10 - Fauna – Fish - Expected Impacts of the tasks and measures for each Strategic Objectives**

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-radiological
<b><i>I. Safe management of spent nuclear fuel</i></b>			
<b>Responsible and safe management of SNF at Kozloduy NPP site</b>			
Maintaining WSFSF in safe condition. Renewal of WSFSF licence for SNF storage after 2024 for a new 10-year period	The measure is a necessary prerequisite for preserving the existing state, therefore no impact on the component is expected from its implementation.	0	0
Maintaining WSFSF in safe condition. Periodic renewal of WSFSF operating licence after 2034.	The measure is a necessary prerequisite for preserving the existing state, therefore no impact on the component is expected from its implementation.	0	0
<b>Safe management of SNF at Kozloduy NPP site - realistic scenario</b>			
SNF transportation from WWER from WSFSF and DSFSF for long-term storage and reprocessing as per current practices and existing contracts	Provided the safety requirements are observed, no negative impact on the fish component is expected during SNF transportation.	0	0
Maintaining readiness for SNF transportation from WWER-440 for long-term storage and reprocessing under a transport scheme via third countries	No impact is expected from the implementation of the measure with respect to the fish component.	0	0
Exploring SNF transportation and reprocessing options from WWER-1000 in EU countries with technological capabilities (France)	The measure is administrative in nature and does not imply any impact on the fish component at this stage	0	0
SNF transportation from WWER-1000 for long-term storage and reprocessing as per current practice	Provided the safety requirements are observed, no negative impact on the fish component is expected during SNF transportation.	0	0
<b>Safe management of SNF at Kozloduy NPP site - optimistic scenario</b>			
SNF transportation of from WWER-1000 for long-term storage and reprocessing as per current practice.	Provided the safety requirements are observed, no negative impact on the fish component is expected during SNF transportation.	0	0
SNF transportation from WWER-1000 for long-term storage and reprocessing.	Provided the safety requirements are observed, no negative impact on the fish component is expected during SNF transportation.	0	0
<b>Safe management of SNF at Kozloduy NPP site</b>			
Licensing of DSFSF extension for SNF storage from WWER-1000, selection of containers for dry storage	Provided the safety requirements are observed, no negative impact on the fish component is expected.	0	0
Amendment to WSFSF licence	Due to insufficient information on the implementation of the measure, it is not possible	=	=

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-radiological
	to assess the impact at this stage;		
<b>Safe management of SNF at Kozloduy NPP site</b>			
Updated assessment of the capacity of WWER-1000 dry spent fuel storage facility	The measure is administrative in nature and does not imply any impact on the fish component.	0	0
<b>II. Responsible and safe management of RAW</b>			
<b>Responsible and safe management of HLW at Kozloduy NPP site</b>			
Reconciliation of methodology for determining the quantity and characteristics of RAW from reprocessing SNF from WWER-440 and WWER-1000	The measure is administrative in nature and does not imply any impact on the fish component.	0	0
Reconciliation of methodology for determining the quantity and characteristics of RAW from reprocessing SNF from WWER-1000	The measure is administrative in nature and does not imply any impact on the fish component.	0	0
Preparation of a long-term plan for the construction of a repository for interim storage of vitrified HLW and other RAW from SNF reprocessing	Due to the lack of specifics on the implementation of the measure, it is not possible to assess the impact at this stage	=	=
<b>Safe management of low- and intermediate-level active RAW from Kozloduy NPP Units 5 and 6</b>			
Improvement of efficiency in separating RAW by its radiation, physical and chemical characteristics, and achieving compliance with RAW acceptance criteria	The implementation of the measure is not relevant to the fish component.	0	0
Minimization of RAW generation	In principle a positive impact, but it is expected to be of low significance due to the long-term nature of the process.	+1	+1
Enhancing safety in the storage and management of liquid and solid historical RAW	In principle a positive impact, but it is expected to be of low significance due to the long-term nature of the process of RAW storage.	+1	+1
<b>Achieving and maintaining sustainability in RAW management</b>			
Ensuring safe and efficient RAW storage in the interim storage facilities of SE RAW and its subsequent transportation conditioning and disposal	In principle a positive impact in the radiological aspect, but it is expected to be of low significance due to the long-term nature of the process of RAW storage. The implementation of the measure is not relevant to the fish component in the non-radiological aspect.	+1	0
Construction of NRRAW for low- and intermediate-level waste	In the radiological aspect, a significant positive impact is expected considering its long-term operation;	+2	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-radiological
	Non-radiological aspect: no impacts are expected on the fish component.		
<b>DC of SD “PRRAW-Novi Han” by a combination of delayed dismantling and option for personnel access to the facility.</b>			
Preparation of documents for issuing DC licence. Safe and effective DC	Despite the administrative nature of the task, safe and effective DC is expected to have a positive impact on the fish fauna in the area;	+1	+1
Safe management of RAW from previous activities	The correct performance of the task will have a positive impact on the component, but it will be insignificant, since the storage of RAW is a long-term process.	+1	+1
<b>III. Disposal of HLW, MARAW and SCRS cat. 2b and 3</b>			
<b>DGR Construction</b>			
Activities under Annex 6	To date, there is no concept developed in detail yet. Due to insufficient detailing of the tasks, the impact cannot be assessed.	=	=
<b>Borehole disposal of spent and closed radioactive sources (SCRS)</b>			
Planning and implementation of a borehole disposal concept	The measure is administrative in nature and is not relevant to the component.	0	0
Packing	Due to insufficiently detailed information on the implementation of the activities, it is not possible to assess the impact at this stage;	=	=
<b>IV. DC of BAS IRT 2000 research reactor</b>			
<b>DC of BAS IRT 2000 research reactor</b>			
Preparatory activities for DC	Due to insufficiently detailed information on the implementation of the activities, it is not possible to assess the impact at this stage;	=	=
DC activities	Due to insufficiently detailed information on the implementation of the activities, it is not possible to assess the impact at this stage;	=	=
<b>V. Decommissioning of Units 1-4 of Kozloduy NPP</b>			
<b>DC of units by continual dismantling</b>			
Ensuring safe and effective DC. Temporary storage of generated RAW and its subsequent transportation, conditioning and disposal	In general, a positive impact is expected from the implementation of the measure, which, however, will be of low significance due to the existing risks at the individual stages.	+1	+1
<b>VI. Decommissioning of Units 5 and 6 of Kozloduy NPP and WSFSF</b>			
<b>Decommissioning of Units 5 and 6 of Kozloduy NPP</b>			
Development of pre-concept for DC of units 5 and 6 of Kozloduy NPP	No impacts are expected on the fish component at the stage of the preliminary DC concept and plan.	0	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-radiological
Development of DC plan for Units 5 and 6 of Kozloduy NPP	No impacts are expected on the fish component at the stage of development of the DC plan.	0	0
<b>DC of WSFSF</b>			
Development of pre-concept and plan for DC	No impacts are expected on the fish component at the stage of the preliminary DC concept and plan.	0	0
Execution of DC activities	No impacts are expected on the fish component, subject to compliance with the safety requirements.	0	0
<b>VII. Adequate financial and human resources</b>			
<b>Ensuring adequate financial resources to implement the high level RAW management and decommissioning programmes.</b>			
Ensuring a long-term mechanism to accumulate funds.	The measure is administrative in nature and is not relevant to the component.	0	0
Methodology for determining the costs of financing the DC of Units 5 and 6 of Kozloduy NPP.	The measure is administrative in nature and is not relevant to the component.	0	0
Strategy for investment of financial assets of NFDF, RAW fund and DGR construction target fund	The measure is administrative in nature and is not relevant to the component.	0	0
Sufficient funds accumulated	The measure is administrative in nature and is not relevant to the component.	0	0
<b>Ensuring and maintaining sufficient human resources by the licensee to fulfil its safety obligations in SNF and RAW management and DC.</b>			
Ensuring sufficient and qualified personnel for implementation of SNF and RAW management activities	No impact is expected in the non-radiological aspect. An indirect, long-term positive impact on the environment is expected, as sufficient and qualified personnel is a guarantee for protecting the environment, including invertebrates, from contamination with radionuclides during the planned activities.	+1	0
Ensuring sufficient and qualified personnel for implementation of DC activities.	No impact is expected in the non-radiological aspect. An indirect, long-term positive impact on the environment is expected, as sufficient and qualified personnel is a guarantee for protecting the environment, including invertebrates, from contamination with radionuclides during the planned activities.	+1	0

## Fauna – Amphibians and Reptiles

**Table 11 - Fauna – Amphibians and Reptiles - Expected Impacts of the tasks and measures for each Strategic Objectives**

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-radiological
<b><i>I. Safe management of spent nuclear fuel</i></b>			
<b>Responsible and safe management of SNF at Kozloduy NPP site</b>			
Maintaining WSFSF in safe condition. Renewal of WSFSF licence for SNF storage after 2024 for a new 10-year period	The measure is a necessary prerequisite for preserving the existing state, therefore no impact on the component is expected from its implementation.	0	0
Maintaining WSFSF in safe condition. Periodic renewal of WSFSF operating licence after 2034.	The measure is a necessary prerequisite for preserving the existing state, therefore no impact on the component is expected from its implementation.	0	0
<b>Safe management of SNF at Kozloduy NPP site - realistic scenario</b>			
SNF transportation from WWER from WSFSF and DSFSF for long-term storage and reprocessing as per current practices and existing contracts	Provided the safety requirements are observed, no negative impact on the amphibians and reptiles component is expected during SNF transportation.	0	0
Maintaining readiness for SNF transportation from WWER-440 for long-term storage and reprocessing under a transport scheme via third countries	No impact is expected from the implementation of the measure with respect to the amphibians and reptiles component.	0	0
Exploring SNF transportation and reprocessing options from WWER-1000 in EU countries with technological capabilities (France)	The measure is administrative in nature and does not imply any impact on the amphibians and reptiles component at this stage.	0	0
SNF transportation from WWER-1000 for long-term storage and reprocessing as per current practice	Provided the safety requirements are observed, no negative impact on the amphibians and reptiles component is expected during SNF transportation for long-term storage.	0	0
<b>Safe management of SNF at Kozloduy NPP site - optimistic scenario</b>			
SNF transportation of from WWER-1000 for long-term storage and reprocessing as per current practice.	Provided the safety requirements are observed, no negative impact on the amphibians and reptiles component is expected during SNF transportation for long-term storage.	0	0
SNF transportation from WWER-1000 for long-term storage and reprocessing.	Provided the safety requirements are observed, no negative impact on the amphibians and reptiles component is expected during SNF transportation for long-term storage.	0	0
<b>Safe management of SNF at Kozloduy NPP site</b>			
Licensing of DSFSF extension for SNF storage from WWER-1000, selection of containers for dry storage	Provided the safety requirements are observed, no negative impact on the amphibians and reptiles component is expected during SNF transportation for long-term storage.	0	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-radiological
Amendment to WSFSF licence	Due to insufficient information on the implementation of the measure, it is not possible to assess the impact at this stage;	=	=
<b>Safe management of SNF at Kozloduy NPP site</b>			
Updated assessment of the capacity of WWER-1000 dry spent fuel storage facility	The measure is administrative in nature and does not imply any impact on the amphibians and reptiles component.	0	0
<b>II. Responsible and safe management of RAW</b>			
<b>Responsible and safe management of HLW at Kozloduy NPP site</b>			
Reconciliation of methodology for determining the quantity and characteristics of RAW from reprocessing SNF from WWER-440 and WWER-1000	The measure is administrative in nature and does not imply any impact on the amphibians and reptiles component.	0	0
Reconciliation of methodology for determining the quantity and characteristics of RAW from reprocessing SNF from WWER-1000	The measure is administrative in nature and does not imply any impact on the amphibians and reptiles component.	0	0
Preparation of a long-term plan for the construction of a repository for interim storage of vitrified HLW and other RAW from SNF reprocessing	Due to the lack of specifics on the implementation of the measure, it is not possible to assess the impact at this stage.	=	=
<b>Safe management of low- and intermediate-level active RAW from Kozloduy NPP Units 5 and 6</b>			
Improvement of efficiency in separating RAW by its radiation, physical and chemical characteristics, and achieving compliance with RAW acceptance criteria	The implementation of the measure is not relevant to the amphibians and reptiles component.	0	0
Minimization of RAW generation	In principle a positive impact, but it is expected to be of low significance due to the long-term nature of the process.	+1	+1
Enhancing safety in the storage and management of liquid and solid historical RAW	In principle a positive impact, but it is expected to be of low significance due to the long-term nature of the process of RAW storage.	+1	+1
<b>Achieving and maintaining sustainability in RAW management</b>			
Ensuring safe and efficient RAW storage in the interim storage facilities of SE RAW and its subsequent transportation conditioning and disposal	In the radiological aspect a positive impact as a whole, but it is expected to be of low significance due to the long-term nature of the process of RAW storage. The implementation of the measure is not relevant to the amphibians and reptiles component in the non-radiological aspect.	+1	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-radiological
Construction of NRRAW for low- and intermediate-level waste	In the radiological aspect, a significant positive impact is expected considering its long-term operation; During the construction stage of the NRRAW, impacts on amphibians and reptiles with habitats in the area of the site can be expected in the non-radiological aspect, but they will be negligibly small.	+2	0
<b>DC of SD “PRRAW-Novı Han” by a combination of delayed dismantling and option for personnel access to the facility.</b>			
Preparation of documents for issuing DC licence. Safe and effective DC	Despite the administrative nature of the task, safe and effective DC is expected to have a positive impact on the herpetofauna in the area;	+1	+1
Safe management of RAW from previous activities	The correct performance of the task will have a positive impact on the component, but it will be insignificant, since the storage of RAW is a long-term process.	+1	+1
<b>III. Disposal of HLW, MARAW and SCRS cat. 2b and 3</b>			
<b>DGR Construction</b>			
Activities under Annex 6	Due to insufficiently detailed information on the implementation of the activities, it is not possible to assess the impact at this stage;	=	=
<b>Borehole disposal of spent and closed radioactive sources (SCRS)</b>			
Planning and implementation of a borehole disposal concept	The measure is administrative in nature and is not relevant to the component.	0	0
Packing	Due to insufficiently detailed information on the implementation of the activities, it is not possible to assess the impact at this stage.	=	=
<b>IV. DC of BAS IRT 2000 research reactor</b>			
<b>DC of BAS IRT 2000 research reactor</b>			
Preparatory activities for DC	Due to insufficiently detailed information on the implementation of the activities, it is not possible to assess the impact at this stage;	=	=
DC activities	Due to insufficiently detailed information on the implementation of the activities, it is not possible to assess the impact at this stage;	=	=
<b>V. Decommissioning of Units 1-4 of Kozloduy NPP</b>			
<b>DC of units by continual dismantling</b>			
Ensuring safe and effective DC. Temporary storage of generated RAW and its subsequent transportation, conditioning and disposal	In general, a positive impact is expected from the implementation of the measure, which, however, will be of low significance due to the existing risks at the individual stages.	+1	+1

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-radiological
<b>VI. Decommissioning of Units 5 and 6 of Kozloduy NPP and WSFSF</b>			
<b>Decommissioning of Units 5 and 6 of Kozloduy NPP</b>			
Development of pre-concept for DC of units 5 and 6 of Kozloduy NPP	No impacts are expected on the amphibians and reptiles component at the stage of the preliminary DC concept and plan.	0	0
Development of DC plan for Units 5 and 6 of Kozloduy NPP	No impacts are expected on the amphibians and reptiles component at the stage of development of the DC plan.	0	0
<b>DC of WSFSF</b>			
Development of pre-concept and plan for DC	No impacts are expected on the amphibians and reptiles component at the stage of the preliminary DC concept and plan.	0	0
Execution of DC activities	No impacts are expected on the amphibians and reptiles component, provided the safety requirements are observed.	0	0
<b>VII. Adequate financial and human resources</b>			
<b>Ensuring adequate financial resources to implement the high level RAW management and decommissioning programmes.</b>			
Ensuring a long-term mechanism to accumulate funds.	The measure is administrative in nature and is not relevant to the component.	0	0
Methodology for determining the costs of financing the DC of Units 5 and 6 of Kozloduy NPP.	The measure is administrative in nature and is not relevant to the component.	0	0
Strategy for investment of financial assets of NFDF, RAW fund and DGR construction target fund	The measure is administrative in nature and is not relevant to the component.	0	0
Sufficient funds accumulated	The measure is administrative in nature and is not relevant to the component.	0	0
<b>Ensuring and maintaining sufficient human resources by the licensee to fulfil its safety obligations in SNF and RAW management and DC.</b>			
Ensuring sufficient and qualified personnel for implementation of SNF and RAW management activities	No impact is expected in the non-radiological aspect. An indirect, long-term positive impact on the environment is expected, as sufficient and qualified personnel is a guarantee for protecting the environment, including invertebrates, from contamination with radionuclides during the planned activities.	+1	0
Ensuring sufficient and qualified personnel for implementation of DC activities.	No impact is expected in the non-radiological aspect. An indirect, long-term positive impact on the environment is expected, as sufficient and qualified personnel is a guarantee for protecting the environment, including invertebrates, from contamination with radionuclides during the planned activities.	+1	0

**Fauna - Mammals**

**Table 12 - Fauna – Mammals - Expected Impacts of the tasks and measures for each Strategic Objectives**

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-radiological
<b><i>I. Safe management of spent nuclear fuel</i></b>			
<b>Responsible and safe management of SNF at Kozloduy NPP site</b>			
Maintaining WSFSF in safe condition. Renewal of WSFSF licence for SNF storage after 2024 for a new 10-year period	An indirect and long-term positive impact in the radiological aspect is expected as a result of ensuring a minimum frequency of operational activities related to safety and limiting the possibility of environmental pollution with radionuclides and hence reducing the impacts on mammals. The impact will be both local within the WSFSF and regional in the area around the Kozloduy NPP. No impact is expected in the non-radiological aspect. License renewal is a purely administrative measure with no impact.	+1	0
Maintaining WSFSF in safe condition. Periodic renewal of WSFSF operating licence after 2034.	An indirect and long-term positive impact in the radiological aspect is expected as a result of ensuring a minimum frequency of operational activities related to safety and limiting the possibility of environmental pollution with radionuclides and hence reducing the impacts on mammals. The impact will be both local within the WSFSF, and regional in the area around the WSFSF. No impact is expected in the non-radiological aspect. License renewal is a purely administrative measure with no impact.	+1	0
<b>Safe management of SNF at Kozloduy NPP site - realistic scenario</b>			
SNF transportation from WWER from WSFSF and DSFSF for long-term storage and reprocessing as per current practices and existing contracts	No direct impact is expected on mammals. An indirect, long-term, positive impact in the radiological aspect is expected on mammals as a result of reducing the amount of SNF at the site and preventing contamination of the environment with radionuclides. No impact is expected in the non-radiological aspect.	+1	0
Maintaining readiness for SNF transportation from WWER-440 for long-term storage and reprocessing under a transport scheme via third countries	The measure is of administrative nature and without impact in the radiological and non-radiological aspect.	0	0
Exploring SNF transportation and reprocessing options from WWER-1000 in EU countries with technological	The measure is of administrative nature and without impact in the radiological and non-radiological aspect.	0	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-radiological
capabilities (France)			
SNF transportation from WWER-1000 for long-term storage and reprocessing as per current practice	No direct impact is expected on mammals. An indirect, long-term, positive impact in the radiological aspect is expected on mammals as a result of reducing the amount of SNF at the site and preventing contamination of the environment with radionuclides. No impact is expected in the non-radiological aspect.	+1	0
<b>Safe management of SNF at Kozloduy NPP site - optimistic scenario</b>			
SNF transportation of from WWER-1000 for long-term storage and reprocessing as per current practice.	No direct impact on the environmental components and factors is expected. An indirect long-term positive impact is expected from the implementation of the concluded agreement for the removal of SNF after receiving approval from the EC, due to the reduction of SNF quantities in Bulgaria, which is a factor in preventing contamination of the environment with radionuclides. No impact is expected in the non-radiological aspect.	+1	0
SNF transportation from WWER-1000 for long-term storage and reprocessing.	No direct impact on the environmental components and factors is expected. An indirect long-term positive impact is expected from the implementation of the concluded agreement for the removal of SNF after receiving approval from the EC, due to the reduction of SNF quantities in Bulgaria, which is a factor in preventing contamination of the environment with radionuclides. No impact is expected in the non-radiological aspect.	+1	0
<b>Safe management of SNF at Kozloduy NPP site</b>			
Licensing of DSFSF extension for SNF storage from WWER-1000, selection of containers for dry storage	No direct impact is expected on mammals. An indirect long-term positive impact is expected in the radiological aspect, depending on the choice of containers that will meet the modern stricter requirements and guarantee the protection of the environment, including mammals, from contamination with radionuclides. No impact is expected in the non-radiological aspect. The licensing activities have no impact on mammals.	+1	0
Amendment to WSFSF licence	The license modification activities have no impact on mammals.	0	0
<b>Safe management of SNF at Kozloduy NPP site</b>			
Updated assessment of the capacity of WWER-1000 dry spent fuel storage facility	Updating the capacity assessment is a purely administrative task with no impact on mammals.	0	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-radiological
<b>II. Responsible and safe management of RAW</b>			
<b>Responsible and safe management of HLW at Kozloduy NPP site</b>			
Reconciliation of methodology for determining the quantity and characteristics of RAW from reprocessing SNF from WWER-440 and WWER-1000	A purely administrative task with no impact on mammals.	0	0
Reconciliation of methodology for determining the quantity and characteristics of RAW from reprocessing SNF from WWER-1000	A purely administrative task with no impact on mammals.	0	0
Preparation of a long-term plan for the construction of a repository for interim storage of vitrified HLW and other RAW from SNF reprocessing	The absence of details on the specific tasks and the territorial scope for the construction of an interim storage facility does not allow us at this stage to assess the impact in the radiological and non-radiological aspect.	=	=
<b>Safe management of low- and intermediate-level active RAW from Kozloduy NPP Units 5 and 6</b>			
Improvement of efficiency in separating RAW by its radiation, physical and chemical characteristics, and achieving compliance with RAW acceptance criteria	No direct impact is expected on mammals. Improving RAW separation efficiency will have an indirect long-term positive impact on mammals by preventing accidental contamination of the environment with radionuclides. No impact is expected in the non-radiological aspect.	+1	0
Minimization of RAW generation	No direct impact is expected on mammals. The development and implementation of a Program for the Management and Radiation Control of wastes that are candidates for exemption from regulation will have an indirect long-term positive impact on mammals through the prevention of accidental contamination of the environment with radionuclides. No impact is expected in the non-radiological aspect.	+1	0
Enhancing safety in the storage and management of liquid and solid historical RAW	No direct impact is expected on mammals. Improving RAW storage and management safety will have an indirect long-term positive impact on mammals as a result of enhancing the safety and preventing accidental contamination of the environment with radionuclides. No impact is expected in the non-radiological aspect.	+1	0
<b>Achieving and maintaining sustainability in RAW management</b>			
Ensuring safe and efficient RAW storage in the interim storage facilities of SE RAW and its subsequent transportation conditioning and disposal	No direct impact is expected on mammals. An indirect, long-term positive impact is expected on mammals in the radiological aspect as a result of the implementation of the modernization program, ensuring the safe and efficient storage of RAW in the temporary storage facilities of the State Enterprise RAW, and the	+1	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-radiological
	implementation of an effective technology for extraction and conditioning the solid phase from the liquid concentrate. The planned activities will minimize impacts on the environment by preventing contamination with radionuclides. No impact is expected in the non-radiological aspect.		
Construction of NRRAW for low- and intermediate-level waste	Adherence to the measures specified in the EIA report of the NRRAW during the construction of the first stage guarantee an insignificant negative impact on mammals in the non-radiological aspect. The stage of commissioning, operation and close-down does not involve the occurrence of additional impacts in non-radiological and radiological aspects. The absence of impacts will be guaranteed by compliance with the close-down plans and all applicable Bulgarian and international legal requirements and practices.	0	0
<b>DC of SD “PRRAW-Novı Han” by a combination of delayed dismantling and option for personnel access to the facility.</b>			
Preparation of documents for issuing DC licence. Safe and effective DC	No impact is expected in the radiological aspect. In the non-radiological aspect, an insignificant, indirect, temporary and short-term negative impact is expected with a limited territorial scope - within the area of the site, during the preparatory activities for the DC for the partial release of RAW on the territory of the SD „PRRAW-Novı Han” during the extraction of RAW and dismantling of the underground facilities, as well as during the restoration of the vacated grounds. The impact will be expressed in a temporary change of the existing environmental conditions in the habitats of mammals in the affected area as a result of dismantling and other technological activities.	0	-1
Safe management of RAW from previous activities	The development of the plans and projects and their implementation with a view to achieving safe management of RAW from previous activities will result in a negligible long-term positive impact in the radiological aspect on mammals due to the prevention of contamination of the environment with radionuclides. No impact is expected in the non-radiological aspect.	+1	0
<b>III. Disposal of HLW, MARAW and SCRS cat. 2b and 3</b>			
<b>DGR Construction</b>			
Activities under Annex 6	The absence of details on the specific tasks and the territorial scope for the construction of DGR does not allow us at this stage to assess the impact in the radiological and non-radiological aspect.	=	=
<b>Borehole disposal of spent and closed radioactive sources (SCRS)</b>			

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-radiological
Planning and implementation of a borehole disposal concept	The absence of details on the planning of the specific tasks and the territorial scope in the implementation of the concept for deep borehole disposal does not allow us at this stage to assess the impact in the radiological and non-radiological aspect.	=	=
Packing	The absence of details on the Program for deep borehole disposal does not allow us at this stage to assess the impact in the radiological and non-radiological aspect.	=	=
<b>IV. DC of BAS IRT 2000 research reactor</b>			
<b>DC of BAS IRT 2000 research reactor</b>			
Preparatory activities for DC	The activities refer to the elaboration of a draft Decision of the Council of Ministers on the cancellation of previous decisions of the Council of Ministers (332/1988 and 552/2001) Without relevance to the elements of the environment, and respectively without impact on mammals.	0	0
DC activities	All activities related to the dismantling of the structures, systems and components will take place on the territory of the research reactor and in an urbanized area. Natural habitats and sanctuaries of mammal species are not affected, so no impacts are expected in the radiological and non-radiological aspects.	0	0
<b>V. Decommissioning of Units 1-4 of Kozloduy NPP</b>			
<b>DC of units by continual dismantling</b>			
Ensuring safe and effective DC. Temporary storage of generated RAW and its subsequent transportation, conditioning and disposal	The main activities and specific operations involved in the dismantling of the constructions, systems and components will take place on the territory of the Kozloduy NPP, and the storage of the generated RAW, their transportation, conditioning and disposal will take place in already constructed infrastructure facilities, therefore no impacts on mammals are expected in the radiological and non-radiological aspects. Negligible insignificant positive long-term impact can be expected from the survey and reclamation of soils around Units 1-4, but they would not, in the foreseeable future, function as a favourable habitat for mammals. This gives us reason to consider the overall impact assessment as neutral with respect to the species.	0	0
<b>VI. Decommissioning of Units 5 and 6 of Kozloduy NPP and WSFSF</b>			
<b>Decommissioning of Units 5 and 6 of Kozloduy NPP</b>			
Development of pre-concept for DC of units 5 and 6 of Kozloduy NPP	The development of the concept is without relevance to the elements and factors of the environment, and therefore no impacts are expected in the radiological and non-radiological	0	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-radiological
	aspect.		
Development of DC plan for Units 5 and 6 of Kozloduy NPP	The stage of development of a DC plan for Units 5 and 6 of the Kozloduy NPP is without relevance to the elements and factors of the environment, and therefore no impacts are expected in the radiological and non-radiological aspect.	0	0
<b>DC of WSFSF</b>			
Development of pre-concept and plan for DC	The stage of development of a preliminary concept and plan for the DC of WSFSF is without relevance to the elements and factors of the environment, and therefore no impacts are expected in the radiological and non-radiological aspect.	0	0
Execution of DC activities	It is expected that there will be an impact, but due to insufficient detailing of the tasks (as of now, there is no DC plan developed in detail yet), a full assessment of the impact is not possible.	=	=
<b>VII. Adequate financial and human resources</b>			
<b>Ensuring adequate financial resources to implement the high level RAW management and decommissioning programmes.</b>			
Ensuring a long-term mechanism to accumulate funds.	The measure is purely administrative and with no impact on mammals.	0	0
Methodology for determining the costs of financing the DC of Units 5 and 6 of Kozloduy NPP.	The measure is purely administrative and with no impact on mammals.	0	0
Strategy for investment of financial assets of NFDF, RAW fund and DGR construction target fund	The measure is purely administrative and with no impact on mammals.	0	0
Sufficient funds accumulated	The measure is purely administrative and with no impact on mammals.	0	0
<b>Ensuring and maintaining sufficient human resources by the licensee to fulfil its safety obligations in SNF and RAW management and DC.</b>			
Ensuring sufficient and qualified personnel for implementation of SNF and RAW management activities	No impact is expected in the non-radiological aspect. An indirect, long-term positive impact on the environment is expected, as sufficient and qualified personnel is a guarantee for protecting the environment, including mammals, from contamination with radionuclides during the planned activities.	+1	0
Ensuring sufficient and qualified personnel for implementation of DC activities.	No impact is expected in the non-radiological aspect. An indirect, long-term positive impact on the environment is expected, as sufficient and qualified personnel is a guarantee for protecting the environment, including mammals, from contamination with radionuclides during the planned activities.	+1	0

## Fauna - Birds

**Table 13 - Fauna – Birds - Expected Impacts of the tasks and measures for each Strategic Objectives**

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-radiological
<b><i>I. Safe management of spent nuclear fuel</i></b>			
<b>Responsible and safe management of SNF at Kozloduy NPP site</b>			
Maintaining WSFSF in safe condition. Renewal of WSFSF licence for SNF storage after 2024 for a new 10-year period	Maintaining the WSFSF in a safe condition and introducing new, more modern measures and reliable safety systems in the WSFSF area and beyond will have a direct and indirect, long-term and permanent insignificant positive impact on the avifauna in the radiological aspect. No impact is expected in the non-radiological aspect.	+1	0
Maintaining WSFSF in safe condition. Periodic renewal of WSFSF operating licence after 2034.	Maintaining the WSFSF in a safe condition and introducing new, more modern measures and reliable safety systems in the WSFSF area and beyond will have a direct and indirect, long-term and permanent insignificant positive impact on the avifauna in the radiological aspect. No impact is expected in the non-radiological aspect.	+1	0
<b>Safe management of SNF at Kozloduy NPP site - realistic scenario</b>			
SNF transportation from WWER from WSFSF and DSFSF for long-term storage and reprocessing as per current practices and existing contracts	A direct and indirect, long-term and permanent insignificant positive impact is expected on the avifauna in the radiological aspect from reducing the amount of SNF at the site. In the non-radiological aspect, an insignificant local indirect temporary negative impact is expected with regard to the avifauna due to disturbance caused by transport activities.	+1	-1
Maintaining readiness for SNF transportation from WWER-440 for long-term storage and reprocessing under a transport scheme via third countries	A direct and indirect, long-term and permanent insignificant positive impact is expected on the avifauna in the radiological aspect from reducing the amount of SNF at the site. In the non-radiological aspect, an insignificant local indirect temporary negative impact is expected with regard to the avifauna due to disturbance caused by transport activities.	+1	-1
Exploring SNF transportation and reprocessing options from WWER-1000 in EU countries with technological capabilities (France)	No impact on the avifauna is expected from the feasibility study as it is an administrative measure, without a physical dimension and does not affect the environment. When carrying out transportation activities, the following is expected: - a direct and indirect, long-term and permanent insignificant positive impact on the avifauna in the radiological aspect from reducing the amount of SNF at the site; - an insignificant local indirect temporary negative impact in the non-radiological aspect due to disturbance caused by transport activities.	0	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-radiological
SNF transportation from WWER-1000 for long-term storage and reprocessing as per current practice	A direct and indirect, long-term and permanent insignificant positive impact is expected on the avifauna in the radiological aspect from reducing the amount of SNF at the site. In the non-radiological aspect, an insignificant local indirect temporary negative impact is expected with regard to the avifauna due to disturbance caused by transport activities.	+1	-1
<b>Safe management of SNF at Kozloduy NPP site - optimistic scenario</b>			
SNF transportation of from WWER-1000 for long-term storage and reprocessing as per current practice.	A direct and indirect, long-term and permanent insignificant positive impact is expected on the avifauna in the radiological aspect from reducing the amount of SNF at the site. In the non-radiological aspect, an insignificant local indirect temporary negative impact is expected with regard to the avifauna due to disturbance caused by transport activities.	+1	-1
SNF transportation from WWER-1000 for long-term storage and reprocessing.	A direct and indirect, long-term and permanent insignificant positive impact is expected on the avifauna in the radiological aspect from reducing the amount of SNF at the site. In the non-radiological aspect, an insignificant local indirect temporary negative impact is expected with regard to the avifauna due to disturbance caused by transport activities.	+1	-1
<b>Safe management of SNF at Kozloduy NPP site</b>			
Licensing of DSFSF extension for SNF storage from WWER-1000, selection of containers for dry storage	An indirect permanent and long-term positive impact is expected in the radiological aspect on the avifauna when choosing containers that meet the modern stricter requirements. No impact is expected in the non-radiological aspect.	+1	0
Amendment to WSFSF licence	No impact on the avifauna is expected, as this is primarily an administrative measure with no physical dimension with the potential to have an impact.	0	0
<b>Safe management of SNF at Kozloduy NPP site</b>			
Updated assessment of the capacity of WWER-1000 dry spent fuel storage facility	No impact on the avifauna is expected, as this is primarily an administrative measure with no physical dimension with the potential to have an impact.	0	0
<b>II. Responsible and safe management of RAW</b>			
<b>Responsible and safe management of HLW at Kozloduy NPP site</b>			
Reconciliation of methodology for determining the quantity and characteristics of RAW from reprocessing SNF from WWER-440 and WWER-1000	No impact on the avifauna is expected, as this is an administrative measure with no physical dimension with the potential to have an impact.	0	0
Reconciliation of methodology for determining the quantity and characteristics of RAW from reprocessing SNF from WWER-1000	No impact on the avifauna is expected, as this is an administrative measure with no physical dimension with the potential to have an impact.	0	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-radiological
Preparation of a long-term plan for the construction of a repository for interim storage of vitrified HLW and other RAW from SNF reprocessing	No impact on the avifauna is expected, as this is an administrative measure with no physical dimension with the potential to have an impact.	0	0
<b>Safe management of low- and intermediate-level active RAW from Kozloduy NPP Units 5 and 6</b>			
Improvement of efficiency in separating RAW by its radiation, physical and chemical characteristics, and achieving compliance with RAW acceptance criteria	As a result of the implementation of a program to improve the efficiency of separation of RAW, a direct and indirect, long-term and permanent insignificant positive impact is expected on the avifauna in the radiological aspect. No impact is expected in the non-radiological aspect.	+1	0
Minimization of RAW generation	As a result of the minimization of the generation of RAW, a direct and indirect, and long-term and permanent insignificant positive impact is expected on the avifauna in the radiological aspect. No impact is expected in the non-radiological aspect.	+1	0
Enhancing safety in the storage and management of liquid and solid historical RAW	Through increasing the safety in the storage and management of liquid and solid historical RAW, a direct and indirect, long-term and permanent insignificant positive impact in terms radiation is expected on the avifauna. No impact is expected in the non-radiological aspect.	+1	0
<b>Achieving and maintaining sustainability in RAW management</b>			
Ensuring safe and efficient RAW storage in the interim storage facilities of SE RAW and its subsequent transportation conditioning and disposal	A direct and indirect, long-term and permanent insignificant positive impact is expected on the avifauna in the radiological aspect as a result of the implementation of the modernization program, ensuring the safe and efficient storage of RAW in the temporary storage facilities of the State Enterprise RAW and in the implementation of an effective technology for extraction and conditioning the solid phase from the liquid concentrate.	+1	0
Construction of NRRAW for low- and intermediate-level waste	According to the Environmental Impact Assessment Report (EIAR) of the NRRAW, an insignificant secondary negative impact is expected during the construction, when the birds are chased away, as well as indirectly on individual birds in the immediately adjacent territories of the “Radiana” site. When implementing the mitigating measures proposed in the EIAR, the impact will be <i>weak in degree, without</i> significant change in the number of faunal complexes in the area and without significant fragmentation of habitats.  No radiological impact is expected.	0	-1

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-radiological
<b>DC of SD “PRRAW-Novi Han” by a combination of delayed dismantling and option for personnel access to the facility.</b>			
Preparation of documents for issuing DC licence. Safe and effective DC	<p>When carrying out the preparatory activities for the decommissioning for partial release of RAW on the territory of SD „PRRAW- Novi Han”, as well as during the extraction of RAW and dismantling of the underground facilities, a direct, temporary and short-term, insignificant local negative impact is expected in the radiological aspect.</p> <p>In the non-radiological aspect, an indirect, temporary and short-term local negative impact is expected from the disturbance caused during the preparatory activities for the DC for the partial release of RAW on the territory of the SD „PRRAW- Novi Han” during the extraction of RAW and dismantling of the underground facilities, as well as during the restoration of the vacated grounds.</p> <p>When conducting restoration activities on the vacated terrains, no impact is expected on the avifauna in the radiological and non-radiological aspects.</p>	-1	-1
Safe management of RAW from previous activities	<p>A permanent and long-term positive impact in the radiological aspect is expected after the preparation of the plans and projects and their implementation to achieve safe management of RAW from previous activities.</p> <p>No non-radiological impact is expected.</p>	+1	0
<b>III. Disposal of HLW, MARAW and SCRS cat. 2b and 3</b>			
<b>DGR Construction</b>			
Activities under Annex 6	To date, there is no concept developed in detail yet. Due to insufficient detailing of the tasks, the impact cannot be assessed.	=	=
<b>Borehole disposal of spent and closed radioactive sources (SCRS)</b>			
Planning and implementation of a borehole disposal concept	To date, there is no concept developed in detail yet. Due to insufficient detailing of the tasks, the impact cannot be assessed.	=	=
Packing	<p>A permanent and long-term positive impact in the radiological aspect is expected after the development and implementation of the program for deep borehole disposal.</p> <p>No non-radiological impact is expected.</p>	+1	0
<b>IV. DC of BAS IRT 2000 research reactor</b>			
<b>DC of BAS IRT 2000 research reactor</b>			
Preparatory activities for DC	In the implementation of the preparatory activities, no impact is expected.	0	0
DC activities	No radiological impact is expected. The activities will be limited within the area of the	0	-1

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-radiological
	site, insignificant disturbance is expected in the non-radiological aspect.		
<b>V. Decommissioning of Units 1-4 of Kozloduy NPP</b>			
<b>DC of units by continual dismantling</b>			
Ensuring safe and effective DC. Temporary storage of generated RAW and its subsequent transportation, conditioning and disposal	A direct and indirect, long-term and permanent insignificant positive impact in the radiological aspect is expected from a reduction in the volume of RAW for disposal and from the deactivation of premises and buildings from the reclamation of soils. A direct and indirect, long-term, permanent insignificant positive impact in the non-radiological aspect is expected from reclamation of the soils.	+1	+1
<b>VI. Decommissioning of Units 5 and 6 of Kozloduy NPP and WSFSF</b>			
<b>Decommissioning of Units 5 and 6 of Kozloduy NPP</b>			
Development of pre-concept for DC of units 5 and 6 of Kozloduy NPP	No impact is expected as a concept is being developed.	0	0
Development of DC plan for Units 5 and 6 of Kozloduy NPP	No impact is expected as a plan is being developed.	0	0
<b>DC of WSFSF</b>			
Development of pre-concept and plan for DC	No impact is expected as a concept and a plan are being developed.	0	0
Execution of DC activities	Due to insufficient detailing of the tasks (as of now, there is no DC plan developed in detail yet), a full assessment of the impact is not possible.	=	=
<b>VII. Adequate financial and human resources</b>			
<b>Ensuring adequate financial resources to implement the high level RAW management and decommissioning programmes.</b>			
Ensuring a long-term mechanism to accumulate funds.	An administrative measure, no impact is expected on the avifauna.	0	0
Methodology for determining the costs of financing the DC of Units 5 and 6 of Kozloduy NPP.	An administrative measure, no impact is expected on the avifauna.	0	0
Strategy for investment of financial assets of NFDF, RAW fund and DGR construction target fund	An administrative measure, no impact is expected on the avifauna.	0	0
Sufficient funds accumulated	An administrative measure, no impact is expected on the avifauna.	0	0
<b>Ensuring and maintaining sufficient human resources by the licensee to fulfil its safety obligations in SNF and RAW management and DC.</b>			
Ensuring sufficient and qualified personnel for implementation of SNF and RAW management activities	An indirect, permanent, long-term, secondary positive impact is expected in the radiological and non-radiological aspects from the provision of qualified personnel with the necessary expertise and qualifications for the implementation of the DC activities,	+1	+1

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-radiological
	which is expected to also lead to a reduction of their impact on the environment as a whole, including upon the avifauna.		
Ensuring sufficient and qualified personnel for implementation of DC activities.	An indirect, permanent, long-term, secondary positive impact is expected in the radiological and non-radiological aspects from the provision of qualified personnel with the necessary expertise and qualifications for the implementation of the DC activities, which is expected to also lead to a reduction of their impact on the environment as a whole, including upon the avifauna.	+1	+1

### Protected Areas and Protected Territories

**Table 14 - Protected Areas and Protected Territories - Expected Impacts of the tasks and measures for each Strategic Objectives**

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-radiological
<b><i>I. Safe management of spent nuclear fuel</i></b>			
<b>Responsible and safe management of SNF at Kozloduy NPP site</b>			
Maintaining WSFSF in safe condition. Renewal of WSFSF licence for SNF storage after 2024 for a new 10-year period	The measure is a necessary prerequisite for preserving the existing state, therefore no impact on the PA and PT is expected from its implementation.	0	0
Maintaining WSFSF in safe condition. Periodic renewal of WSFSF operating licence after 2034.	The measure is a necessary prerequisite for preserving the existing state, therefore no impact on the PA and PT is expected from its implementation.	0	0
<b>Safe management of SNF at Kozloduy NPP site - realistic scenario</b>			
SNF transportation from WWER from WSFSF and DSFSF for long-term storage and reprocessing as per current practices	Provided the safety requirements are observed, no negative impact on the PA and PT within a 30-kilometre area around Kozloduy NPP is expected during SNF	0	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-radiological
and existing contracts	transportation.		
Maintaining readiness for SNF transportation from WWER-440 for long-term storage and reprocessing under a transport scheme via third countries	No impact is expected from the implementation of the measure with respect to the PA and PT.	0	0
Exploring SNF transportation and reprocessing options from WWER-1000 in EU countries with technological capabilities (France)	The measure is administrative in nature and does not imply any impact on the PA and PT at this stage.	0	0
SNF transportation from WWER-1000 for long-term storage and reprocessing as per current practice	Provided the safety requirements are observed, no negative impact on the PA and PT within a 30-kilometre area around Kozloduy NPP is expected during SNF transportation.	0	0
<b>Safe management of SNF at Kozloduy NPP site - optimistic scenario</b>			
SNF transportation of from WWER-1000 for long-term storage and reprocessing as per current practice.	Provided the safety requirements are observed, no negative impact on the PA and PT within a 30-kilometre area around Kozloduy NPP is expected during SNF transportation.	0	0
SNF transportation from WWER-1000 for long-term storage and reprocessing.	Provided the safety requirements are observed, no negative impact on the PA and PT within a 30-kilometre area around Kozloduy NPP is expected during SNF transportation.	0	0
<b>Safe management of SNF at Kozloduy NPP site</b>			
Licensing of DSFSF extension for SNF storage from WWER-1000, selection of containers for dry storage	Provided the safety requirements are observed, no negative impact on the PA and PT within a 30-kilometre area around Kozloduy NPP is expected during SNF transportation.	0	0
Amendment to WSFSF licence	Due to insufficient information on the implementation of the measure, it is not possible to assess the impact at this stage.	=	=
<b>Safe management of SNF at Kozloduy NPP site</b>			
Updated assessment of the capacity of WWER-1000 dry spent fuel storage facility	The measure is administrative in nature and does not imply any impact on the PA and PT at this stage.	0	0
<b>II. Responsible and safe management of RAW</b>			
<b>Responsible and safe management of HLW at Kozloduy NPP site</b>			
Reconciliation of methodology for determining the quantity and characteristics of RAW from reprocessing SNF from	The measure is administrative in nature and does not imply any impact on the PA and PT at this stage.	0	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-radiological
WVER-440 and WVER-1000			
Reconciliation of methodology for determining the quantity and characteristics of RAW from reprocessing SNF from WVER-1000	The measure is administrative in nature and does not imply any impact on the PA and PT at this stage.	0	0
Preparation of a long-term plan for the construction of a repository for interim storage of vitrified HLW and other RAW from SNF reprocessing	Due to the lack of specifics on the implementation of the measure, it is not possible to assess the impact at this stage.	=	=
<b>Safe management of low- and intermediate-level active RAW from Kozloduy NPP Units 5 and 6</b>			
Improvement of efficiency in separating RAW by its radiation, physical and chemical characteristics, and achieving compliance with RAW acceptance criteria	The implementation of the measure is not relevant to the PA and PT.	0	0
Minimization of RAW generation	In principle a positive impact, but it is expected to be of low significance due to the long-term nature of the process.	+1	+1
Enhancing safety in the storage and management of liquid and solid historical RAW	In principle a positive impact, but it is expected to be of low significance due to the long-term nature of the process of RAW storage.	+1	+1
<b>Achieving and maintaining sustainability in RAW management</b>			
Ensuring safe and efficient RAW storage in the interim storage facilities of SE RAW and its subsequent transportation conditioning and disposal	No direct impact is expected on the PA and PT. In the radiological aspect, the safe and efficient storage of RAW in the facilities for the temporary storage of State enterprise RAW, and their subsequent transportation, conditioning and disposal are expected to have a positive impact on the environment, and thence, on the PA and PT.	+1	+1
Construction of NRRAW for low- and intermediate-level waste	The NRRAW site does not fall within the boundaries of the protected areas and is not directly adjacent to them, but an assessment of the compatibility with the subject and objectives of conservation of protected areas was made within the EIA report, and the conclusion is that: <i>The implementation of the Investment Proposal (IP) for the implementation of the NRRAW does not imply negative direct and significant indirect impacts, and does not add to such impacts, on the nearest protected areas, subject to compliance with the design technologies for construction and operation, as well as the implementation of the mitigating measures set out in the environmental assessment report.</i>	+1	-1/0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-radiological
	In the radiological aspect, a positive impact is expected from the NRRAW considering its long-term operation. In the non-radiological aspect, insignificant indirect impacts are expected during the construction and no impacts are expected during operation.		
<b>DC of SD “PRRAW-Novi Han” by a combination of delayed dismantling and option for personnel access to the facility.</b>			
Preparation of documents for issuing DC licence. Safe and effective DC	Despite the administrative nature of the task, the safe and effective DC is expected to have a positive impact on the PA and PT in the area.	+1	+1
Safe management of RAW from previous activities	The correct performance of the task will have a positive impact on the PA and PT, but it will be insignificant, since the storage of RAW is a long-term process.	+1	+1
<b>III. Disposal of HLW, MARAW and SCRS cat. 2b and 3</b>			
<b>DGR Construction</b>			
Activities under Annex 6	Due to insufficiently detailed information on the implementation of the activities, it is not possible to assess the impact at this stage.	=	=
<b>Borehole disposal of spent and closed radioactive sources (SCRS)</b>			
Planning and implementation of a borehole disposal concept	The measure is administrative in nature and is not relevant to the component.	0	0
Packing	Due to insufficiently detailed information on the implementation of the activities, it is not possible to assess the impact at this stage.	=	=
<b>IV. DC of BAS IRT 2000 research reactor</b>			
<b>DC of BAS IRT 2000 research reactor</b>			
Preparatory activities for DC	Due to insufficiently detailed information on the implementation of the activities, it is not possible to assess the impact at this stage.	=	=
DC activities	Due to insufficiently detailed information on the implementation of the activities, it is not possible to assess the impact at this stage.	=	=
<b>V. Decommissioning of Units 1-4 of Kozloduy NPP</b>			
<b>DC of units by continual dismantling</b>			
Ensuring safe and effective DC. Temporary storage of generated RAW and its subsequent transportation, conditioning and disposal	In general, a positive impact is expected from the implementation of the measure, which, however, will be of low significance due to the existing risks at the individual stages.	+1	+1
<b>VI. Decommissioning of Units 5 and 6 of Kozloduy NPP and WSFSF</b>			

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-radiological
<b>Decommissioning of Units 5 and 6 of Kozloduy NPP</b>			
Development of pre-concept for DC of units 5 and 6 of Kozloduy NPP	No impacts are expected on the PA and PT at the stage of the preliminary DC concept and plan.	0	0
Development of DC plan for Units 5 and 6 of Kozloduy NPP	No impacts are expected on the PA and PT at the stage of development of the DC plan.	0	0
<b>DC of WSFSF</b>			
Development of pre-concept and plan for DC	No impacts are expected on the PA and PT at the stage of the preliminary DC concept and plan.	0	0
Execution of DC activities	No impacts are expected on the PA and PT, provided the safety requirements are observed.	0	0
<b>VII. Adequate financial and human resources</b>			
<b>Ensuring adequate financial resources to implement the high level RAW management and decommissioning programmes.</b>			
Ensuring a long-term mechanism to accumulate funds.	The measure is administrative in nature and is not relevant to the component.	0	0
Methodology for determining the costs of financing the DC of Units 5 and 6 of Kozloduy NPP.	The measure is administrative in nature and is not relevant to the component.	0	0
Strategy for investment of financial assets of NFDF, RAW fund and DGR construction target fund	The measure is administrative in nature and is not relevant to the component.	0	0
Sufficient funds accumulated	The measure is administrative in nature and is not relevant to the component.	0	0
<b>Ensuring and maintaining sufficient human resources by the licensee to fulfil its safety obligations in SNF and RAW management and DC.</b>			
Ensuring sufficient and qualified personnel for implementation of SNF and RAW management activities	The measure is administrative in nature and is not relevant to the component.	0	0
Ensuring sufficient and qualified personnel for implementation of DC activities.	The measure is administrative in nature and is not relevant to the component.	0	0

## Cultural Heritage

**Table 15 - Cultural Heritage - Expected Impacts of the tasks and measures for each Strategic Objectives**

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Assessment
<b><i>I. Safe management of spent nuclear fuel</i></b>		
<b>Responsible and safe management of SNF at Kozloduy NPP site</b>		
Maintaining WSFSF in safe condition. Renewal of WSFSF licence for SNF storage after 2024 for a new 10-year period	No impact on cultural heritage is expected.	0
Maintaining WSFSF in safe condition. Periodic renewal of WSFSF operating licence after 2034.	No impact on cultural heritage is expected.	0
<b>Safe management of SNF at Kozloduy NPP site - realistic scenario</b>		
SNF transportation from WWER from WSFSF and DSFSF for long-term storage and reprocessing as per current practices and existing contracts	No impact on cultural heritage is expected.	0
Maintaining readiness for SNF transportation from WWER-440 for long-term storage and reprocessing under a transport scheme via third countries	No impact on cultural heritage is expected.	0
Exploring SNF transportation and reprocessing options from WWER-1000 in EU countries with technological capabilities (France)	No impact on cultural heritage is expected.	0
SNF transportation from WWER-1000 for long-term storage and reprocessing as per current practice	No impact on cultural heritage is expected.	0
<b>Safe management of SNF at Kozloduy NPP site - optimistic scenario</b>		
SNF transportation of from WWER-1000 for long-term storage and reprocessing as per current practice.	No impact on cultural heritage is expected.	0
SNF transportation from WWER-1000 for long-term storage and reprocessing.	No impact on cultural heritage is expected.	0
<b>Safe management of SNF at Kozloduy NPP site</b>		
Licensing of DSFSF extension for SNF storage from WWER-1000, selection of containers for dry storage	No impact on cultural heritage is expected.	0
Amendment to WSFSF licence	No impact on cultural heritage is expected.	0
<b>Safe management of SNF at Kozloduy NPP site</b>		
Updated assessment of the capacity of WWER-1000 dry spent fuel storage facility	The measure will not have an impact on the cultural and historical heritage.	0
<b><i>II. Responsible and safe management of RAW</i></b>		
<b>Responsible and safe management of HLW at Kozloduy NPP site</b>		
Reconciliation of methodology for determining the quantity and characteristics of RAW from	The measure will not have an impact on the cultural and historical	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Assessment
reprocessing SNF from WWER-440 and WWER-1000	heritage.	
Reconciliation of methodology for determining the quantity and characteristics of RAW from reprocessing SNF from WWER-1000	The measure will not have an impact on the cultural and historical heritage.	0
Preparation of a long-term plan for the construction of a repository for interim storage of vitrified HLW and other RAW from SNF reprocessing	The measure will not have an impact on the cultural and historical heritage.	0
<b>Safe management of low- and intermediate-level active RAW from Kozloduy NPP Units 5 and 6</b>		
Improvement of efficiency in separating RAW by its radiation, physical and chemical characteristics, and achieving compliance with RAW acceptance criteria	The measure will not have an impact on the cultural and historical heritage.	0
Minimization of RAW generation	The measure will not have an impact on the cultural and historical heritage.	0
Enhancing safety in the storage and management of liquid and solid historical RAW	The measure will not have an impact on the cultural and historical heritage.	0
<b>Achieving and maintaining sustainability in RAW management</b>		
Ensuring safe and efficient RAW storage in the interim storage facilities of SE RAW and its subsequent transportation conditioning and disposal	The measure will not have an impact on the cultural and historical heritage.	0
Construction of NRRRAW for low- and intermediate-level waste	During the construction of the NRRRAW, negative impacts on currently unknown sites of cultural and historical heritage are possible.	-1
<b>DC of SD “PRRAW-Novi Han” by a combination of delayed dismantling and option for personnel access to the facility.</b>		
Preparation of documents for issuing DC licence. Safe and effective DC	The measure will not have an impact on the cultural and historical heritage.	0
Safe management of RAW from previous activities	The measure will not have an impact on the cultural and historical heritage.	0
<b>III. Disposal of HLW, MARAW and SCRS cat. 2b and 3</b>		
<b>DGR Construction</b>		
Activities under Annex 6	The occurrence of an impact is possible, but due to insufficient detailing of the tasks – as of now, there is no concept developed in detail yet, a full assessment of the impact is not possible.	=
<b>Borehole disposal of spent and closed radioactive sources (SCRS)</b>		
Planning and implementation of a borehole disposal concept	The occurrence of an impact is possible, but due to insufficient detailing of the tasks – as of now, there is no concept developed in detail yet, a full assessment of the impact is not possible.	=

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Assessment
Packing	The measure will not have an impact on the cultural and historical heritage.	0
<b>IV. DC of BAS IRT 2000 research reactor</b>		
<b>DC of BAS IRT 2000 research reactor</b>		
Preparatory activities for DC	The measure will not have an impact on the cultural and historical heritage.	0
DC activities	The measure will not have an impact on the cultural and historical heritage.	0
<b>V. Decommissioning of Units 1-4 of Kozloduy NPP</b>		
<b>DC of units by continual dismantling</b>		
Ensuring safe and effective DC. Temporary storage of generated RAW and its subsequent transportation, conditioning and disposal	The measure will not have an impact on the cultural and historical heritage.	0
<b>VI. Decommissioning of Units 5 and 6 of Kozloduy NPP and WSFSF</b>		
<b>Decommissioning of Units 5 and 6 of Kozloduy NPP</b>		
Development of pre-concept for DC of units 5 and 6 of Kozloduy NPP	The measure will not have an impact on the cultural and historical heritage.	0
Development of DC plan for Units 5 and 6 of Kozloduy NPP	The measure will not have an impact on the cultural and historical heritage.	0
<b>DC of WSFSF</b>		
Development of pre-concept and plan for DC	The measure will not have an impact on the cultural and historical heritage.	0
Execution of DC activities	The measure will not have an impact on the cultural and historical heritage.	0
<b>VII. Adequate financial and human resources</b>		
<b>Ensuring adequate financial resources to implement the high level RAW management and decommissioning programmes.</b>		
Ensuring a long-term mechanism to accumulate funds.	The measure will not have an impact on the cultural and historical heritage.	0
Methodology for determining the costs of financing the DC of Units 5 and 6 of Kozloduy NPP.	The measure will not have an impact on the cultural and historical heritage.	0
Strategy for investment of financial assets of NFDF, RAW fund and DGR construction target fund	The measure will not have an impact on the cultural and historical heritage.	0
Sufficient funds accumulated	The measure will not have an impact on the cultural and historical heritage.	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Assessment
	heritage.	
<b>Ensuring and maintaining sufficient human resources by the licensee to fulfil its safety obligations in SNF and RAW management and DC.</b>		
Ensuring sufficient and qualified personnel for implementation of SNF and RAW management activities	The measure will not have an impact on the cultural and historical heritage.	0
Ensuring sufficient and qualified personnel for implementation of DC activities.	The measure will not have an impact on the cultural and historical heritage.	0

## Waste

**Table 16 - Waste - Expected Impacts of the tasks and measures for each objective**

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
<b>I. Safe management of spent nuclear fuel</b>			
<b>Responsible and safe management of SNF at Kozloduy NPP site</b>			
Maintaining WSFSF in safe condition. Renewal of WSFSF licence for SNF storage after 2024 for a new 10-year period	In the radiological aspect, the implementation of the measure is not related to the management of RAW, therefore no impact of RAW on the components of the environment is expected.  In the non-radiological aspect, the measure is administrative in nature and is not related to the generation of non-radioactive waste, therefore no impact is expected.	0	0
Maintaining WSFSF in safe condition. Periodic renewal of WSFSF operating licence after 2034.	In the radiological aspect, the implementation of the measure is not related to the management of RAW, therefore no impact of RAW on the components of the environment is expected.  In the non-radiological aspect, the measure is administrative in nature and is not related to the generation of non-radioactive waste, therefore no impact is expected.	0	0
<b>Safe management of SNF at Kozloduy NPP site - realistic scenario</b>			

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
SNF transportation from WWER from WSFSF and DSFSF for long-term storage and reprocessing as per current practices and existing contracts	<p>In the radiological aspect, the implementation of the measure is not related to the management of RAW, therefore no impact of RAW on the components of the environment is expected.</p> <p>In the non-radiological aspect, the measure is not related to the generation of non-radioactive waste, therefore no impact is expected.</p>	0	0
Maintaining readiness for SNF transportation from WWER-440 for long-term storage and reprocessing under a transport scheme via third countries	<p>In the radiological aspect, the implementation of the measure is not related to the management of RAW, therefore no impact of RAW on the components of the environment is expected.</p> <p>In the non-radiological aspect, the measure is not related to the generation of non-radioactive waste, therefore no impact is expected.</p>	0	0
Exploring SNF transportation and reprocessing options from WWER-1000 in EU countries with technological capabilities (France)	<p>In the radiological aspect, the implementation of the measure is not related to the management of RAW, therefore no impact of RAW on the components of the environment is expected.</p> <p>In the non-radiological aspect, the measure is not related to the generation of non-radioactive waste, therefore no impact is expected.</p>	0	0
SNF transportation from WWER-1000 for long-term storage and reprocessing as per current practice	<p>In the radiological aspect, the implementation of the measure is not related to the management of RAW, therefore no impact of RAW on the components of the environment is expected.</p> <p>In the non-radiological aspect, the measure is not related to the generation of non-radioactive waste, therefore no impact is expected.</p>	0	0
<b>Safe management of SNF at Kozloduy NPP site - optimistic scenario</b>			
SNF transportation of from WWER-1000 for long-term storage and reprocessing as per current practice.	<p>In the radiological aspect, the implementation of the measure is not related to the management of RAW, therefore no impact of RAW on the components of the environment is expected.</p> <p>In the non-radiological aspect, the measure is not related to the generation of non-radioactive waste, therefore no impact is expected.</p>	0	0
SNF transportation from WWER-1000 for long-term storage and reprocessing.	<p>In the radiological aspect, the implementation of the measure is not related to the management of RAW, therefore no impact of RAW on the components of the environment is expected.</p> <p>In the non-radiological aspect, the measure is not related to the generation of non-radioactive waste, therefore no impact is expected.</p>	0	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
<b>Safe management of SNF at Kozloduy NPP site</b>			
Licensing of DSFSF extension for SNF storage from WWER-1000, selection of containers for dry storage	In the radiological aspect, the implementation of the measure is not related to the management of RAW, therefore no impact of RAW on the components of the environment is expected. In the non-radiological aspect, the measure is not related to the generation of non-radioactive waste, therefore no impact is expected.	0	0
Amendment to WSFSF licence	In the radiological aspect, the implementation of the measure is not related to the management of RAW, therefore no impact of RAW on the components of the environment is expected. In the non-radiological aspect, the measure is not related to the generation of non-radioactive waste, therefore no impact is expected.	0	0
<b>Safe management of SNF at Kozloduy NPP site</b>			
Updated assessment of the capacity of WWER-1000 dry spent fuel storage facility	In the radiological aspect, the implementation of the measure is not related to the management of RAW, therefore no impact of RAW on the components of the environment is expected. In the non-radiological aspect, the measure is not related to the generation of non-radioactive waste, therefore no impact is expected.	0	0
<b>II. Responsible and safe management of RAW</b>			
<b>Responsible and safe management of HLW at Kozloduy NPP site</b>			
Reconciliation of methodology for determining the quantity and characteristics of RAW from reprocessing SNF from WWER-440 and WWER-1000	In the radiological aspect, the implementation of the measure is expected to have a significant positive impact, which will be both direct and indirect, short-term and long-term. The implementation of the measure will lead to the safe and responsible management of RAW. In the non-radiological aspect, the measure is not related to the generation of non-radioactive waste, therefore no impact is expected.	+2	0
Reconciliation of methodology for determining the quantity and characteristics of RAW from reprocessing SNF from WWER-1000	In the radiological aspect, the implementation of the measure is expected to have a significant positive impact, which will be both direct and indirect, short-term and long-term. The implementation of the measure will lead to the safe and responsible management of RAW. In the non-radiological aspect, the measure is not related to the generation of non-radioactive waste, therefore no impact is expected.	+2	0
Preparation of a long-term plan for the construction of a repository for interim storage of vitrified HLW	In the radiological aspect, the implementation of the measure is expected to have a significant positive impact, which will be both direct and indirect, short-term and long-term. The	+2	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
and other RAW from SNF reprocessing	implementation of the measure will lead to the long-term planning of safe and responsible management of RAW. In the non-radiological aspect, the measure is not related to the generation of non-radioactive waste, therefore no impact is expected.		
<b>Safe management of low- and intermediate-level active RAW from Kozloduy NPP Units 5 and 6</b>			
Improvement of efficiency in separating RAW by its radiation, physical and chemical characteristics, and achieving compliance with RAW acceptance criteria	In the radiological aspect, the implementation of the measure is expected to have a significant positive impact, which will be both direct and indirect, short-term and long-term. The implementation of the measure will lead to the safe and responsible management of RAW. In the non-radiological aspect, the measure is not related to the generation of non-radioactive waste, therefore no impact is expected.	+2	0
Minimization of RAW generation	In the radiological aspect, the implementation of the measure is expected to have a significant positive impact, which will be both direct and indirect, short-term and long-term. The implementation of the measure will lead to the minimization of the generation of RAW. In the non-radiological aspect, the measure is not related to the generation of non-radioactive waste, therefore no impact is expected.	+2	0
Enhancing safety in the storage and management of liquid and solid historical RAW	In the radiological aspect, the implementation of the measure is expected to have a significant positive impact, which will be both direct and indirect, short-term and long-term. The implementation of the measure will lead to the safe and responsible management of RAW. In the non-radiological aspect, the measure is not related to the generation of non-radioactive waste, therefore no impact is expected.	+2	0
<b>Achieving and maintaining sustainability in RAW management</b>			
Ensuring safe and efficient RAW storage in the interim storage facilities of SE RAW and its subsequent transportation conditioning and disposal	In the radiological aspect, the implementation of the measure is expected to have a significant positive impact, which will be both direct and indirect, short-term and long-term. The implementation of the measure will lead to the safe and responsible management of RAW. In the non-radiological aspect, the measure is not related to the generation of non-radioactive waste, therefore no impact is expected.	+2	0
Construction of NRRAW for low- and intermediate-level waste	In the radiological aspect, the implementation of the measure is expected to have a significant positive impact, which will be both direct and indirect, short-term and long-term. The implementation of the measure will lead to the safe and responsible management of RAW. In the non-radiological aspect, the measure is related to the generation of non-radioactive waste	+2	-1

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
	during the construction activities for the construction of the NRRAW, as well as by the personnel involved in these activities. The expected impact will be insignificant, negative, direct and indirect, short-term and long-term on the components of the environment.		
<b>DC of SD “PRRAW-Novi Han” by a combination of delayed dismantling and option for personnel access to the facility.</b>			
Preparation of documents for issuing DC licence. Safe and effective DC	In the radiological aspect, the implementation of the measure is expected to have a significant positive impact, which will be both direct and indirect, short-term and long-term. The implementation of the measure will lead to the safe and responsible management of RAW. In the non-radiological aspect, the measure is related to the generation of non-radioactive waste from the decommissioning activities, as well as by the personnel involved in these activities. The expected impact will be insignificant, negative, direct and indirect, short-term and long-term on the components of the environment.	+2	-1
Safe management of RAW from previous activities	In the radiological aspect, the implementation of the measure is expected to have a significant positive impact, which will be both direct and indirect, short-term and long-term. The implementation of the measure will lead to the safe and responsible management of RAW. In the non-radiological aspect, the measure is not related to the generation of non-radioactive waste, therefore no impact is expected.	+2	0
<b>III. Disposal of HLW, MARAW and SCRS cat. 2b and 3</b>			
<b>DGR Construction</b>			
Activities under Annex 6	In the radiological aspect, the implementation of the measure is expected to have a significant positive impact, which will be both direct and indirect, short-term and long-term. The implementation of the measure will lead to the safe and responsible management of RAW. In the non-radiological aspect, the measure is related to the generation of non-radioactive waste during the construction activities, as well as by the personnel involved in these activities. The expected impact will be insignificant, negative, direct and indirect, short-term and long-term on the components of the environment.	+2	=
<b>Borehole disposal of spent and closed radioactive sources (SCRS)</b>			
Planning and implementation of a borehole disposal concept	In the radiological aspect, the implementation of the measure is expected to have a significant positive impact, which will be both direct and indirect, short-term and long-term. The implementation of the measure will lead to the safe and responsible management of RAW. In the non-radiological aspect, the measure is not related to the generation of non-radioactive waste,	+2	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
	therefore no impact is expected.		
Packing	In the radiological aspect, the implementation of the measure is expected to have a significant positive impact, which will be both direct and indirect, short-term and long-term. The implementation of the measure will lead to the safe and responsible management of RAW. In the non-radiological aspect, the measure is not related to the generation of non-radioactive waste, therefore no impact is expected.	+2	0
<b>IV. DC of BAS IRT 2000 research reactor</b>			
<b>DC of BAS IRT 2000 research reactor</b>			
Preparatory activities for DC	In the radiological aspect, the implementation of the measure is expected to have a significant positive impact, which will be both direct and indirect, short-term and long-term. The implementation of the measure will lead to the safe and responsible management of RAW. In the non-radiological aspect, the measure is not related to the generation of non-radioactive waste, therefore no impact is expected.	+2	0
DC activities	In the radiological aspect, the implementation of the measure is expected to have a significant positive impact, which will be both direct and indirect, short-term and long-term. The implementation of the measure will lead to the safe and responsible management of RAW. In the non-radiological aspect, the measure is related to the generation of non-radioactive waste from the decommissioning activities, as well as by the personnel involved in these activities. The expected impact will be insignificant, negative, direct and indirect, short-term and long-term on the components of the environment.	+2	-1
<b>V. Decommissioning of Units 1-4 of Kozloduy NPP</b>			
<b>DC of units by continual dismantling</b>			
Ensuring safe and effective DC. Temporary storage of generated RAW and its subsequent transportation, conditioning and disposal	In the radiological aspect, the implementation of the measure is expected to have a significant positive impact, which will be both direct and indirect, short-term and long-term. The implementation of the measure will lead to the safe and responsible management of RAW. In the non-radiological aspect, the measure is related to the generation of non-radioactive waste from the decommissioning activities, as well as by the personnel involved in these activities. The expected impact will be insignificant, negative, direct and indirect, short-term and long-term on the components of the environment.	+2	-1
<b>VI. Decommissioning of Units 5 and 6 of Kozloduy NPP and WSFSF</b>			

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
<b>Decommissioning of Units 5 and 6 of Kozloduy NPP</b>			
Development of pre-concept for DC of units 5 and 6 of Kozloduy NPP	In the radiological aspect, the implementation of the measure is expected to have a significant positive impact, which will be both direct and indirect, short-term and long-term. The implementation of the measure is related to the planning of safe and responsible management of RAW. In the non-radiological aspect, the measure is administrative in nature and is not related to the generation of non-radioactive waste, therefore no impact is expected.	+2	0
Development of DC plan for Units 5 and 6 of Kozloduy NPP	In the radiological aspect, the implementation of the measure is expected to have a significant positive impact, which will be both direct and indirect, short-term and long-term. The implementation of the measure is related to the planning of safe and responsible management of RAW. In the non-radiological aspect, the measure is administrative in nature and is not related to the generation of non-radioactive waste, therefore no impact is expected.	+2	0
<b>DC of WSFSF</b>			
Development of pre-concept and plan for DC	In the radiological aspect, the implementation of the measure is not related to the management of RAW, therefore no impact of RAW on the components of the environment is expected. In the non-radiological aspect, the measure is administrative in nature and is not related to the generation of non-radioactive waste, therefore no impact is expected.	0	0
Execution of DC activities	In the radiological aspect, the implementation of the measure is not related to the management of RAW, therefore no impact of RAW on the components of the environment is expected. In the non-radiological aspect, the measure is related to the generation of non-radioactive waste from the decommissioning activities, as well as by the personnel involved in these activities. The expected impact will be insignificant, negative, direct and indirect, short-term and long-term on the components of the environment.	0	-1
<b>VII. Adequate financial and human resources</b>			
<b>Ensuring adequate financial resources to implement the high level RAW management and decommissioning programmes.</b>			
Ensuring a long-term mechanism to accumulate funds.	In the radiological aspect, the implementation of the measure is expected to have a positive impact, which will be indirect, short-term and long-term. The planned measure is administrative in nature,	+1	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
	<p>but its implementation will lead to the provision of financial resources for the safe and responsible management of RAW.</p> <p>In the non-radiological aspect, the measure is not related to the generation of non-radioactive waste, therefore no impact is expected.</p>		
Methodology for determining the costs of financing the DC of Units 5 and 6 of Kozloduy NPP.	<p>In the radiological aspect, the implementation of the measure is expected to have a positive impact, which will be indirect, short-term and long-term. The planned measure is administrative in nature, but its implementation will lead to the effective management of the financial resources for the safe and responsible management of RAW.</p> <p>In the non-radiological aspect, the measure is not related to the generation of non-radioactive waste, therefore no impact is expected.</p>	+1	0
Strategy for investment of financial assets of NFDF, RAW fund and DGR construction target fund	<p>In the radiological aspect, the implementation of the measure is expected to have a positive impact, which will be indirect, short-term and long-term. The planned measure is administrative in nature, but its implementation will lead to the effective management of the financial assets for the safe and responsible management of RAW.</p> <p>In the non-radiological aspect, the measure is not related to the generation of non-radioactive waste, therefore no impact is expected.</p>	+1	0
Sufficient funds accumulated	<p>In the radiological aspect, the implementation of the measure is expected to have a positive impact, which will be indirect, short-term and long-term. The planned measure is administrative in nature, but its implementation will lead to the provision of financial resources for the safe and responsible management of RAW.</p> <p>In the non-radiological aspect, the measure is not related to the generation of non-radioactive waste, therefore no impact is expected.</p>	+1	0
<b>Ensuring and maintaining sufficient human resources by the licensee to fulfil its safety obligations in SNF and RAW management and DC.</b>			
Ensuring sufficient and qualified personnel for implementation of SNF and RAW management activities	<p>In the radiological aspect, the implementation of the measure is expected to have a significant positive impact, which will be indirect, short-term and long-term. The planned measure is administrative in nature, but its implementation will lead to the securing of qualified human resources for the safe and responsible management of RAW.</p> <p>In the non-radiological aspect, the measure is not related to the generation of non-radioactive waste,</p>	+2	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
	therefore no impact is expected.		
Ensuring sufficient and qualified personnel for implementation of DC activities.	<p>In the radiological aspect, the implementation of the measure is expected to have a significant positive impact, which will be indirect, short-term and long-term. The planned measure is administrative in nature, but its implementation will lead to the securing of qualified human resources for the safe and responsible management of RAW.</p> <p>In the non-radiological aspect, the measure is not related to the generation of non-radioactive waste, therefore no impact is expected.</p>	+2	0

### Harmful Physical Factors

**Table 17 - Harmful Physical Factors - Expected Impacts of the tasks and measures for each objective**

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
<b><i>I. Safe management of spent nuclear fuel</i></b>			
<b>Responsible and safe management of SNF at Kozloduy NPP site</b>			
Maintaining WSFSF in safe condition. Renewal of WSFSF licence for SNF storage after 2024 for a new 10-year period	<p>In the radiological aspect, the implementation of the measure is related to the management of RAW, which is why a direct and indirect permanent and long-term, positive impact is expected in the radiological aspect on the components and factors of the environment from the introduction of new, more modern measures and reliable safety systems in the WSFSF area and beyond.</p> <p>In the non-radiological aspect, the measure is administrative in nature, and no change in the impact of the other harmful physical impact factors is expected.</p>	+1	0
Maintaining WSFSF in safe condition. Periodic renewal of WSFSF operating licence after 2034.	In the radiological aspect, the implementation of the measure is related to the management of RAW, therefore a reduction of the impact of RAW on the components of the environment is expected, i.e., a	+1	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
	<p>positive impact is expected in the radiological aspect.</p> <p>In the non-radiological aspect, no change in the impact of other harmful physical factors is expected, so it is either not expected or irrelevant to the components and factors of the environment.</p>		
<b>Safe management of SNF at Kozloduy NPP site - realistic scenario</b>			
SNF transportation from WWER from WSFSF and DSFSF for long-term storage and reprocessing as per current practices and existing contracts	<p>A direct and indirect permanent and long-term, positive impact is expected in the radiological aspect on the components of the environment and the health of the population from the introduction of new, more modern measures and reliable safety systems that will lead to a reduction of the impact on the environment and the health of the population.</p> <p>In the non-radiological aspect, the measure is not related to the generation of additional harmful physical factors, which is why no impact is expected on the components of the environment, other than the current one.</p>	+1	0
Maintaining readiness for SNF transportation from WWER-440 for long-term storage and reprocessing under a transport scheme via third countries	<p>A direct and indirect permanent and long-term, positive impact in the radiological aspect is expected on the components and factors of the environment and the health of the population from the reduction of the quantities of SNF at the site as a result of transportation.</p> <p>In the non-radiological aspect, the measure is not related to the generation of additional harmful physical factors, which is why no impact is expected on the components of the environment, other than the current one.</p>	+1	0
Exploring SNF transportation and reprocessing options from WWER-1000 in EU countries with technological capabilities (France)	In the radiological and non-radiological aspects, no impact is expected or it has no relation to the components and factors of the environment, as it is only a study of the possibilities and eventually an agreement is executed.	0	0
SNF transportation from WWER-1000 for long-term storage and reprocessing as per current practice	<p>No direct impact on the environmental components and factors is expected.</p> <p>An indirect permanent and long-term, positive impact in the radiological aspect is expected on the components and factors of the environment and the health of the population from the reduction of the quantities of SNF in Bulgaria.</p> <p>During transportation, an insignificant negative local short-term, reversible impact is possible - from emissions from the transport vehicles, which are negligibly small compared to the rest of the transport flow, therefore no impact is expected in the non-radiological aspect.</p>	+1	0
<b>Safe management of SNF at Kozloduy NPP site - optimistic scenario</b>			
SNF transportation of from WWER-1000 for	No direct impact on the environmental components and factors is expected.	+1	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
long-term storage and reprocessing as per current practice.	<p>An indirect permanent and long-term, positive impact in the radiological aspect is expected on the components and factors of the environment and the health of the population from the reduction of the quantities of SNF in Bulgaria.</p> <p>During transportation, an insignificant negative local short-term, reversible impact is possible - from emissions from the transport vehicles, which are negligibly small compared to the rest of the transport flow, therefore no impact is expected in the non-radiological aspect.</p>		
SNF transportation from WWER-1000 for long-term storage and reprocessing.	<p>No direct impact on the components and factors of the environment is expected.</p> <p>An indirect permanent and long-term, positive impact in the radiological aspect is expected on the components and factors of the environment and the health of the population from the reduction of the quantities of SNF in Bulgaria.</p> <p>During transportation, an insignificant negative local short-term, reversible impact is possible - from emissions from the transport vehicles, which are negligibly small compared to the rest of the transport flow, therefore no impact is expected in the non-radiological aspect.</p>	+1	0
<b>Safe management of SNF at Kozloduy NPP site</b>			
Licensing of DSFSF extension for SNF storage from WWER-1000, selection of containers for dry storage	<p>No direct impact on the components and factors of the environment is expected.</p> <p>An indirect permanent and long-term, positive impact in the radiological aspect is expected on the components and factors of the environment and the health of the population from the selection of containers, which will be in compliance with the modern stricter requirements.</p>	+1	0
Amendment to WSFSF licence	<p>No direct impact on the components and factors of the environment is expected.</p> <p>No impact is expected or it is irrelevant to the components and factors of the environment - this is merely the drawing-up of documentation.</p>	0	0
<b>Safe management of SNF at Kozloduy NPP site</b>			
Updated assessment of the capacity of WWER-1000 dry spent fuel storage facility	No impact is expected or it is irrelevant to the components and factors of the environment - this is merely the drawing-up of assessment and their approval.	0	0
<b>II. Responsible and safe management of RAW</b>			
<b>Responsible and safe management of HLW at Kozloduy NPP site</b>			
Reconciliation of methodology for determining the quantity and characteristics of RAW from reprocessing SNF from WWER-440 and	In the radiological aspect, the implementation of the measure is expected to have a positive impact, which will be both direct and indirect, short-term and long-term. The implementation of the measure will lead to the safe and responsible management of RAW.	+1	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
WWER-1000	No impact is expected in the non-radiological aspect.		
Reconciliation of methodology for determining the quantity and characteristics of RAW from reprocessing SNF from WWER-1000	In the radiological aspect, the implementation of the measure is expected to have a positive impact, which will be both direct and indirect, short-term and long-term. The implementation of the measure will lead to the safe and responsible management of RAW. No impact is expected in the non-radiological aspect.	+1	0
Preparation of a long-term plan for the construction of a repository for interim storage of vitrified HLW and other RAW from SNF reprocessing	No direct impact is expected on the components and factors of the environment. In the radiological aspect, the implementation of the measure is expected to have a positive impact, which will be both direct and indirect, short-term and long-term. The implementation of the measure will lead to the long-term planning of safe and responsible management of RAW. No impact is expected in the non-radiological aspect.	+1	0
<b>Safe management of low- and intermediate-level active RAW from Kozloduy NPP Units 5 and 6</b>			
Improvement of efficiency in separating RAW by its radiation, physical and chemical characteristics, and achieving compliance with RAW acceptance criteria	A direct and indirect permanent and long-term, positive impact in the radiological aspect is expected on the components and factors of the environment and the health of the population from the implementation of the program for enhancing the efficiency of RAW separation. No impact is expected in the non-radiological aspect.	+1	0
Minimization of RAW generation	In the radiological aspect, the implementation of the measure is expected to have a significant positive impact, which will be both direct and indirect, short-term and long-term. The implementation of the measure will lead to the minimization of the generation of RAW. In the non-radiological aspect, the measure is not related to the generation of non-radioactive waste, therefore no impact is expected.	+2	0
Enhancing safety in the storage and management of liquid and solid historical RAW	In the radiological aspect the implementation of the measure is expected to have a direct and indirect permanent and long-term positive impact on the components and factors of the environment after increasing the safety of storage and management of liquid and solid historical RAW. No impact is expected in the non-radiological aspect.	+2	0
<b>Achieving and maintaining sustainability in RAW management</b>			
Ensuring safe and efficient RAW storage in the interim storage facilities of SE RAW and its subsequent transportation conditioning and disposal	In the radiological aspect, during the implementation of the measure, a direct and indirect permanent and long-term, positive impact is expected on the components and factors of the environment after the implementation of the modernization program, ensuring the safe and efficient storage of RAW in the facilities for temporary storage of State Enterprise RAW. No impact is expected in the non-radiological aspect.	+2	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
Construction of NRRAW for low- and intermediate-level waste	In the radiological aspect, the implementation of the measure is expected to have a significant positive impact, which will be both direct and indirect, short-term and long-term. The implementation of the measure will lead to the safe and responsible management of RAW. In the non-radiological aspect, the measure is associated with an insignificant negative direct and indirect, short-term and long-term impact in the non-radiological aspect on the components and factors of the environment during the construction of the NRRAW.	+2	-1
<b>DC of SD “PRRAW-Novi Han” by a combination of delayed dismantling and option for personnel access to the facility.</b>			
Preparation of documents for issuing DC licence. Safe and effective DC	In the radiological aspect, the implementation of the measure is expected to have a positive impact, which will be both direct and indirect, short-term and long-term. The implementation of the measure will lead to the safe and responsible management of RAW. A direct, temporary and short-term negative impact in the non-radiological aspect is expected, which will not be significant, and will be local - within the area of the site, during the preparatory activities for DC, the dismantling of underground facilities and the restoration of the vacated grounds on the territory of SD „PRRAW- Novi Han”.	+1	-1
Safe management of RAW from previous activities	In the radiological aspect, the implementation of the measure is expected to have a permanent and long-term positive impact in the radiological aspect on the components and factors of the environment and the health of the population after the development of the plans and projects and their implementation to achieve safe management of RAW from previous activities. No impact is expected in the non-radiological aspect.	+2	0
<b>III. Disposal of HLW, MARAW and SCRS cat. 2b and 3</b>			
<b>DGR Construction</b>			
Activities under Annex 6	It is expected that there will be an impact, but due to insufficient detailing of the tasks - as of now, there is no concept developed in detail yet, a full assessment of the impact is not possible. In the radiological aspect, the implementation of the measure is expected to have a significant positive impact, which will be both direct and indirect, short-term and long-term. The implementation of the measure will lead to the safe and responsible management of RAW.	=	=
<b>Borehole disposal of spent and closed radioactive sources (SCRS)</b>			
Planning and implementation of a borehole disposal concept	An impact is expected, but due to insufficient detailing of the tasks it cannot be estimated, as at the moment there is no concept developed in detail yet.	=	=
Packing	In the radiological aspect, the implementation of the measure is expected to have a permanent and long-	+2	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
	term positive impact in the radiological aspect on the components and factors of the environment and the health of the population. No impact is expected in the non-radiological aspect.		
<b>IV. DC of BAS IRT 2000 research reactor</b>			
<b>DC of BAS IRT 2000 research reactor</b>			
Preparatory activities for DC	No impact is expected or it is irrelevant to the components and factors of the environment as a DC plan is being prepared and approved.	0	0
DC activities	In the radiological aspect, the implementation of the measure is expected to have a positive impact, which will be both direct and indirect, short-term and long-term. The implementation of the measure will lead to the safe and responsible management of RAW. A temporary and short-term, local, confined within the site, insignificant, negative impact in the non-radiological aspect is expected, during the implementation of the restoration activities of the site.	+1	-1
<b>V. Decommissioning of Units 1-4 of Kozloduy NPP</b>			
<b>DC of units by continual dismantling</b>			
Ensuring safe and effective DC. Temporary storage of generated RAW and its subsequent transportation, conditioning and disposal	In the radiological aspect, the implementation of the measure is expected to have a direct and indirect, permanent and long-term, positive impact in the radiological aspect on the components and factors of the environment from the reduction of the volume of RAW for disposal. A direct, long-term, permanent, local, positive impact in the radiological and non-radiological aspects is expected from reclamation of the soils. In the non-radiological aspect, a direct short-term, temporary, insignificant negative impact is expected during the dismantling of the SSC (structures, systems and components), the construction of a facility for the production of packaging of the reinforced-concrete-containers type and the construction activities for the modernization of the site infrastructure.	+1	-1
<b>VI. Decommissioning of Units 5 and 6 of Kozloduy NPP and WSFSF</b>			
<b>Decommissioning of Units 5 and 6 of Kozloduy NPP</b>			
Development of pre-concept for DC of units 5 and 6 of Kozloduy NPP	No impact is expected as a concept is being developed. In the radiological aspect, after the implementation of the measure, a positive impact is expected, which will be both direct and indirect, short-term and long-term. The implementation of the measure is related to the planning of safe and responsible management of RAW. No impact is expected from the measure in the non-radiological aspect.	0/+2	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
Development of DC plan for Units 5 and 6 of Kozloduy NPP	No impact is expected, as a plan for the DC of Units 5 and 6 of the Kozloduy NPP is being adopted with the definition of specific stages, terms and goals. In the radiological aspect, after the implementation of the measure, a positive impact is expected, which will be both direct and indirect, short-term and long-term. In the non-radiological aspect, the measure is administrative in nature and is not related to the generation of non-radioactive waste, therefore no impact is expected.	0/+2	0
<b>DC of WSFSF</b>			
Development of pre-concept and plan for DC	Since the concept and a plan are being adopted, no impact of RAW on the components of the environment is expected. In the non-radiological aspect, the measure is administrative in nature and is not related to the generation of non-radioactive waste, therefore no impact is expected.	0	0
Execution of DC activities	It is expected that there will be an impact, but due to insufficient detailing of the tasks (as of now, there is no DC plan developed in detail yet), a full assessment of the impact is not possible	=	=
<b>VII. Adequate financial and human resources</b>			
<b>Ensuring adequate financial resources to implement the high level RAW management and decommissioning programmes.</b>			
Ensuring a long-term mechanism to accumulate funds.	No direct impact is expected on the components and factors of the environment, as an Ordinance is being adopted. In the radiological aspect, the implementation of the measure is expected to have a positive impact, which will be indirect, short-term and long-term, as its implementation will lead to the provision of financial resources for the safe and responsible management of RAW	+1	0
Methodology for determining the costs of financing the DC of Units 5 and 6 of Kozloduy NPP.	No direct impact is expected on the components and factors of the environment, as a methodology is being developed and adopted. In the radiological aspect, the implementation of the measure is expected to have a positive impact, which will be indirect, short-term and long-term, as its implementation will lead to the effective management of financial resources for the safe and responsible management of RAW	+1	0
Strategy for investment of financial assets of NFDF, RAW fund and DGR construction target fund	No direct impact is expected on the components and factors of the environment, as a strategy is being developed and adopted.	+1	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
Sufficient funds accumulated	No direct impact is expected on the components and factors of the environment, as the adequacy of the funds is being assessed.	+1	0
<b>Ensuring and maintaining sufficient human resources by the licensee to fulfil its safety obligations in SNF and RAW management and DC.</b>			
Ensuring sufficient and qualified personnel for implementation of SNF and RAW management activities	An indirect, permanent, long-term, secondary positive impact is expected in the radiological and non-radiological aspects from the provision of qualified personnel with the necessary expertise and qualifications for the implementation of the DC activities, which is expected to also lead to a reduction of their impact on the environment and the health of the population.	+1	+1
Ensuring sufficient and qualified personnel for implementation of DC activities.	An indirect, permanent, long-term, secondary positive impact is expected in the radiological and non-radiological aspects from the provision of qualified personnel with the necessary expertise and qualifications for the implementation of the DC activities, which is expected to also lead to a reduction of their impact on the environment and the health of the population.	+1	+1

## Material Assets

**Table 18 - Material Assets - Expected Impacts of the tasks and measures for each objective**

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Assessment
<b><i>I. Safe management of spent nuclear fuel</i></b>		
<b>Responsible and safe management of SNF at Kozloduy NPP site</b>		
Maintaining WSFSF in safe condition. Renewal of WSFSF licence for SNF storage after 2024 for a new 10-year period	A positive impact related to the introduction of new, more modern measures and reliable safety systems in the WSFSF area and beyond, which will lead to an improvement in the state of the nuclear infrastructure. The impact is of low significance, permanent, long-term and of national significance.	+1
Maintaining WSFSF in safe condition. Periodic renewal of WSFSF operating licence after 2034.	No impact on the material assets is expected as this is primarily an administrative measure with no physical dimension affecting the material assets.	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Assessment
<b>Safe management of SNF at Kozloduy NPP site - realistic scenario</b>		
SNF transportation from WWER from WSFSF and DSFSF for long-term storage and reprocessing as per current practices and existing contracts	In this measure, there is an interaction with material assets, as transportation affects elements of the road infrastructure. However, the activities will not lead to measurable consequences or a visible change in the condition of the road infrastructure, therefore the impact assessment is 0.	0
Maintaining readiness for SNF transportation from WWER-440 for long-term storage and reprocessing under a transport scheme via third countries	No impact on the material assets is expected as this is primarily an administrative measure with no physical dimension affecting the material assets.	0
Exploring SNF transportation and reprocessing options from WWER-1000 in EU countries with technological capabilities (France)	No impact is expected on the material assets, as this is primarily an administrative measure with no physical dimension affecting the material assets.	0
SNF transportation from WWER-1000 for long-term storage and reprocessing as per current practice	In this measure, there is an interaction with material assets, as transportation affects elements of the road infrastructure. However, the activities will not lead to measurable consequences or a visible change in the condition of the road infrastructure, therefore the impact assessment is 0.	0
<b>Safe management of SNF at Kozloduy NPP site - optimistic scenario</b>		
SNF transportation of from WWER-1000 for long-term storage and reprocessing as per current practice.	In this measure, there is an interaction with material assets, as transportation affects elements of the road infrastructure. However, the activities will not lead to measurable consequences or a visible change in the condition of the road infrastructure, therefore the impact assessment is 0.	0
SNF transportation from WWER-1000 for long-term storage and reprocessing.	In this measure, there is an interaction with material assets, as transportation affects elements of the road infrastructure. However, the activities will not lead to measurable consequences or a visible change in the condition of the road infrastructure, therefore the impact assessment is 0.	0
<b>Safe management of SNF at Kozloduy NPP site</b>		
Licensing of DSFSF extension for SNF storage from WWER-1000, selection of containers for dry storage	No impact is expected on the material assets, as this is primarily an administrative measure with no physical dimension affecting the material assets.	0
Amendment to WSFSF licence	No impact is expected on the material assets, as this is primarily an administrative measure with no physical dimension affecting the material assets.	0
<b>Safe management of SNF at Kozloduy NPP site</b>		
Updated assessment of the capacity of WWER-1000 dry spent fuel storage facility	No impact is expected on the material assets, as this is primarily an administrative measure with no physical dimension affecting the material assets.	0
<b>II. Responsible and safe management of RAW</b>		
<b>Responsible and safe management of HLW at Kozloduy NPP site</b>		
Reconciliation of methodology for determining the quantity and characteristics of RAW from reprocessing SNF from	No impact is expected on the material assets, as this is primarily an administrative measure with no physical dimension affecting the material assets.	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Assessment
<b>WVER-440 and WVER-1000</b>		
Reconciliation of methodology for determining the quantity and characteristics of RAW from reprocessing SNF from WVER-1000	No impact is expected on the material assets, as this is primarily an administrative measure with no physical dimension affecting the material assets.	0
Preparation of a long-term plan for the construction of a repository for interim storage of vitrified HLW and other RAW from SNF reprocessing	No impact is expected on the material assets, as this is primarily an administrative measure with no physical dimension affecting the material assets.	0
<b>Safe management of low- and intermediate-level active RAW from Kozloduy NPP Units 5 and 6</b>		
Improvement of efficiency in separating RAW by its radiation, physical and chemical characteristics, and achieving compliance with RAW acceptance criteria	No impact is expected on the material assets, as this is primarily an administrative measure with no physical dimension affecting the material assets.	0
Minimization of RAW generation	No impact is expected on the material assets.	0
Enhancing safety in the storage and management of liquid and solid historical RAW	A positive impact with low level of significance related to the establishment of a system of accountability and traceability for the safe transfer of all currently generated solid RAW to a nuclear waste disposal facility, which will lead to an increase in the quality of the nuclear infrastructure. The impact is permanent and long-term.	+1
<b>Achieving and maintaining sustainability in RAW management</b>		
Ensuring safe and efficient RAW storage in the interim storage facilities of SE RAW and its subsequent transportation conditioning and disposal	A positive impact with low level of significance related to the development and implementation of a program for modernization of a RAW Processing Workshop, which will lead to an increase in the quality of the nuclear infrastructure.	+1
Construction of NRRRAW for low- and intermediate-level waste	Possible impact on the infrastructure passing through the Radian site, which must be moved off-site. Parts of the facilities may be damaged during the move. The impact will be negative, with a low level of significance, local, long-term and reversible. Measures are envisioned to prevent the impact.  A positive impact is also expected from the rehabilitation of the second-class national road II-11 (the section from the town of Kozloduy to the village of Harlets), which will be carried out at the expense of State Enterprise (SE) RAW. The impact will be positive, with a low level of significance, local, long-term and permanent.  There is a possibility of a negative impact on the road infrastructure in the area as a result of the transportation of the materials necessary for the construction of the NRRRAW. However, the activities will not lead to measurable consequences or a visible change in the condition of the road infrastructure, therefore the impact is considered negligibly small.	+1

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Assessment
	<p>A significant positive impact is also expected from the further development of the nuclear infrastructure in the Republic of Bulgaria. The impact is of medium level of significance, long-term, permanent and of national significance.</p> <p>The combined assessment of the negative and positive impacts on the material assets is +1.</p>	
<b>DC of SD “PRRAW-Novi Han” by a combination of delayed dismantling and option for personnel access to the facility.</b>		
Preparation of documents for issuing DC licence. Safe and effective DC	In this measure, there is an interaction with material assets, as transportation of the dismantled structures affects elements of the road infrastructure. However, the activities will not lead to measurable consequences or a visible change in the condition of the road infrastructure, therefore the impact assessment is 0.	0
Safe management of RAW from previous activities	In this measure, there is an interaction with material assets, as transportation of the RAW from previous activities affects elements of the road infrastructure. However, the activities will not lead to measurable consequences or a visible change in the condition of the road infrastructure, therefore the impact assessment is 0.	0
<b>III. Disposal of HLW, MARAW and SCRS cat. 2b and 3</b>		
<b>DGR Construction</b>		
Activities under Annex 6	There may be an impact, but due to insufficiently detailed information at the moment, an impact assessment is not possible.	=
<b>Borehole disposal of spent and closed radioactive sources (SCRS)</b>		
Planning and implementation of a borehole disposal concept	There may be an impact, but due to insufficiently detailed information at the moment, an impact assessment is not possible.	=
Packing	No impact is expected on the material assets.	0
<b>IV. DC of BAS IRT 2000 research reactor</b>		
<b>DC of BAS IRT 2000 research reactor</b>		
Preparatory activities for DC	No impact on material assets is expected.	0
DC activities	No impact on material assets is expected.	0
<b>V. Decommissioning of Units 1-4 of Kozloduy NPP</b>		
<b>DC of units by continual dismantling</b>		
Ensuring safe and effective DC. Temporary storage of generated RAW and its subsequent transportation, conditioning and disposal	In this measure, there is an interaction with material assets, as the transportation of RAW affects elements of the road infrastructure. However, the activities will not lead to measurable consequences or a visible change in the condition of the road infrastructure, therefore the impact assessment is 0.	0
<b>VI. Decommissioning of Units 5 and 6 of Kozloduy NPP and WSFSF</b>		

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Assessment
<b>Decommissioning of Units 5 and 6 of Kozloduy NPP</b>		
Development of pre-concept for DC of units 5 and 6 of Kozloduy NPP	No impact is expected on the material assets, as this is primarily an administrative measure with no physical dimension affecting the material assets.	0
Development of DC plan for Units 5 and 6 of Kozloduy NPP	No impact is expected on the material assets, as this is primarily an administrative measure with no physical dimension affecting the material assets.	0
<b>DC of WSFSF</b>		
Development of pre-concept and plan for DC	No impact is expected on the material assets, as this is primarily an administrative measure with no physical dimension affecting the material assets.	0
Execution of DC activities	There may be an impact, but due to insufficiently detailed information at the moment, an impact assessment is not possible.	=
<b>VII. Adequate financial and human resources</b>		
<b>Ensuring adequate financial resources to implement the high level RAW management and decommissioning programmes.</b>		
Ensuring a long-term mechanism to accumulate funds.	No impact is expected on the material assets, as this is primarily an administrative measure with no physical dimension affecting the material assets.	0
Methodology for determining the costs of financing the DC of Units 5 and 6 of Kozloduy NPP.	No impact is expected on the material assets, as this is primarily an administrative measure with no physical dimension affecting the material assets.	0
Strategy for investment of financial assets of NFDF, RAW fund and DGR construction target fund	No impact is expected on the material assets, as this is primarily an administrative measure with no physical dimension affecting the material assets.	0
Sufficient funds accumulated	No impact is expected on the material assets, as this is primarily an administrative measure with no physical dimension affecting the material assets.	0
<b>Ensuring and maintaining sufficient human resources by the licensee to fulfil its safety obligations in SNF and RAW management and DC.</b>		
Ensuring sufficient and qualified personnel for implementation of SNF and RAW management activities	No impact on material assets is expected.	0
Ensuring sufficient and qualified personnel for implementation of DC activities.	No impact on material assets is expected.	0

## Population and Human Health

**Table 19 - Population and Human Health Expected Impacts of the tasks and measures for each objective**

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
<b><i>I. Safe management of spent nuclear fuel</i></b>			
<b>Responsible and safe management of SNF at Kozloduy NPP site</b>			
Maintaining WSFSF in safe condition. Renewal of WSFSF licence for SNF storage after 2024 for a new 10-year period	Positive impact from introducing new, more modern measures and reliable safety systems which reduces the risk for the population. A direct and indirect permanent and long-term, positive impact is expected in the radiological aspect on the components of the environment and the health of the population from the introduction of new, more modern measures and reliable safety systems that will lead to a reduction of the impact on the environment and the health of the population.	+2	0
Maintaining WSFSF in safe condition. Periodic renewal of WSFSF operating licence after 2034.	Not expected or not relevant to the components and factors of the environment.	0	0
<b>Safe management of SNF at Kozloduy NPP site - realistic scenario</b>			
SNF transportation from WWER from WSFSF and DSFSF for long-term storage and reprocessing as per current practices and existing contracts	Provided the transport is carried out normally, no impact is expected on the population. The implementation of the agreement is expected to lead to a direct and indirect permanent and long-term, positive impact in the radiological aspect on the components and factors of the environment and the health of the population from the reduction of the quantities of SNF at the site.	+2	0
Maintaining readiness for SNF transportation from WWER-440 for long-term storage and reprocessing under a transport scheme via third countries	Insignificant, local, short-term, reversible negative impact in the non-radiological aspect is expected from the transportation. A direct and indirect permanent and long-term, positive impact in the radiological aspect is expected on the health of the population from the reduction of the quantities of SNF at the site as a result of transportation.	+2	0
Exploring SNF transportation and reprocessing options from WWER-1000 in EU countries with technological capabilities (France)	The measure is only at the research level, no direct impact is expected on the population and workers. In the event of transportation: a direct and indirect permanent and long-term, positive impact in the radiological aspect is expected on the health of the population from the reduction of the quantities of SNF in Bulgaria.	+2	0
SNF transportation from WWER-1000 for long-term storage and reprocessing as per current practice	Insignificant, local, short-term, reversible negative impact in the non-radiological aspect is expected from the transportation - emissions from the transport vehicles. A direct and indirect permanent and long-term, positive impact in the radiological aspect is expected on the health of the population from the reduction of the quantities of SNF in Bulgaria.	+2	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
<b>Safe management of SNF at Kozloduy NPP site - optimistic scenario</b>			
SNF transportation of from WWER-1000 for long-term storage and reprocessing as per current practice.	In the radiological aspect, a positive impact can be expected from the reduction of the amount of SNF on the site and the corresponding reduction of the risk from radiation contamination of elements of the environment affecting the population. The impact will be positive, direct and indirect and long term.	+ 2	0
SNF transportation from WWER-1000 for long-term storage and reprocessing.	In the radiological aspect, a positive impact can be expected from the reduction of the amount of SNF on the site and the corresponding reduction of the risk from radiation contamination of elements of the environment affecting the population. The impact will be positive, direct and indirect and long term.	+ 2	0
<b>Safe management of SNF at Kozloduy NPP site</b>			
Licensing of DSFSF extension for SNF storage from WWER-1000, selection of containers for dry storage	<i>Licensing</i> - No impact on the population and workers is expected, as this is a measure of an administrative nature, preparation of documentation, without a physical dimension affecting the health of the population. After the implementation of the full volume of documentation, a permanent and long-term insignificant negative impact in the radiological aspect is expected on the health of the population from the expansion of the DSFSF for the storage of SNF. <i>Selection of containers</i> - An indirect permanent and long-term, positive impact in the radiological aspect is expected on the health of the population from the selection of containers, which will be in compliance with the modern stricter requirements.	0	0
Amendment to WSFSF licence	<i>Preparation of documentation</i> : No impact on the population and workers is expected, as this is a measure of an administrative nature, preparation of documentation, without a physical dimension affecting the health of the population. <i>Modification of the Licenses</i> : There is a possibility of an insignificant permanent and long-term negative impact in the radiological aspect on the components and factors of the environment and the health of the population from the modification of the WSFSF licensing.	0	0
<b>Safe management of SNF at Kozloduy NPP site</b>			
Updated assessment of the capacity of WWER-1000 dry spent fuel storage facility	No impact on the population and workers is expected, as the measure is of an administrative/organizational nature.	0	0
<b>II. Responsible and safe management of RAW</b>			
<b>Responsible and safe management of HLW at Kozloduy NPP site</b>			
Reconciliation of methodology for determining the quantity and characteristics of RAW from reprocessing SNF from WWER-440 and WWER-	No impact on the population and workers is expected, as the measure is of an administrative/expertise nature.	0	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
1000			
Reconciliation of methodology for determining the quantity and characteristics of RAW from reprocessing SNF from WWER-1000	No impact on the population and workers is expected, as the measure is of an administrative/expertise nature.	0	0
Preparation of a long-term plan for the construction of a repository for interim storage of vitrified HLW and other RAW from SNF reprocessing	No impact on the population and workers is expected, as the measure is of an administrative/organizational nature.	0	0
<b>Safe management of low- and intermediate-level active RAW from Kozloduy NPP Units 5 and 6</b>			
Improvement of efficiency in separating RAW by its radiation, physical and chemical characteristics, and achieving compliance with RAW acceptance criteria	This measure is organizational, administrative in nature, but it is important for better organization in the management of RAW. A direct and indirect permanent and long-term positive impact in the radiological aspect is expected on the components and factors of the environment and the health of the population from the implementation of the program for enhancing the efficiency of RAW separation.	+2	0
Minimization of RAW generation	<i>Development of the methodology</i> - No impact on the population and workers is expected, as the activity is of an administrative/expertise nature. <i>Implementation of the methodology</i> - A direct and indirect permanent and long-term positive impact in the radiological aspect is expected on the components and factors of the environment and the health of the population from the minimization of the generation of RAW.	+2	0
Enhancing safety in the storage and management of liquid and solid historical RAW	<i>Extraction and processing of the historical sludge and sorbents:</i> In the radiological and non-radiological aspects, an insignificant negative impact can be expected during the activities related to the historical RAW - extraction of sludge and sorbents, due to the generation of small additional amounts of radioactive waste. This impact is expected to be temporary and short-term within the area of the Kozloduy NPP site. <i>Transfer of RAW for processing:</i> A direct and indirect, permanent and long-term positive impact in the radiological aspect is expected on the components and factors of the environment, respectively on the health of the population, after the implementation of the system of accountability and traceability for the safe transfer of all currently generated solid RAW to the nuclear waste disposal facility.	+2	0
<b>Achieving and maintaining sustainability in RAW management</b>			
Ensuring safe and efficient RAW storage in the interim storage facilities of SE RAW and its	In the radiological aspect, a direct and indirect permanent and long-term positive impact is expected on the health of the population after the implementation of the modernization program, ensuring the	+2	0

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
subsequent transportation conditioning and disposal	safe and efficient storage of RAW in the facilities for temporary storage of State Enterprise RAW. An indirect permanent and long-term positive impact in the radiological aspect is expected on the population in connection with the implementation of an effective technology for extraction and conditioning the solid phase from the liquid concentrate.		
Construction of NRRAW for low- and intermediate-level waste	The implementation of this task is phased, over a long period of time. <i>During the construction</i> during the various stages, no impact on the population is expected, as the NRRAW is at a distance from populated areas. For the workers, an insignificant negative impact in the non-radiological aspect is expected, at the construction site, which will be short-term, temporary, reversible. <i>During the operation</i> - no significant negative impact is expected in the non-radiological aspect on the components and factors of the environment, respectively on the population, taking into account the proposed measures in the EIA Report of NRRAW adopted with the EIA Decision. No radiation impacts are expected on the health of the population and personnel, as well as on the health of the population in a 30 km zone around the NRRAW.	0	0 - pop.; -1 workers
<b>DC of SD “PRRAW-Novi Han” by a combination of delayed dismantling and option for personnel access to the facility.</b>			
Preparation of documents for issuing DC licence. Safe and effective DC	<i>For the population:</i> no impact is expected. <i>For the workers:</i> In the radiological and non-radiological aspects, an insignificant, direct, temporary and short-term negative impact is expected, local in nature - within the site, related to the preparatory activities for the DC for the partial release of RAW on the territory of the SD „PRRAW - Novi Han”, the extraction of RAW, and the dismantling of the underground facilities, as well as the restoration of the vacated grounds.	0 - pop.; -1 workers	0 - pop.; -1 workers
Safe management of RAW from previous activities	Planned, administrative and practical activities are envisioned for the vacation of the terrain from RAW and its restoration. A permanent and long-term positive impact in the radiological aspect is expected on the health of the population after the preparation of the plans and projects and their implementation to achieve safe management of RAW from previous activities.	+2	0
<b>III. Disposal of HLW, MARAW and SCRS cat. 2b and 3</b>			
<b>DGR Construction</b>			
Activities under Annex 6	It is expected that there will be an impact, but due to insufficient detailing of the tasks - as of now, there is no concept developed in detail yet, a full assessment of the impact is not possible.	=	=
<b>Borehole disposal of spent and closed radioactive sources (SCRS)</b>			

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
Planning and implementation of a borehole disposal concept	Conceptual, exploratory, administrative, etc. activities are required for implementation, which are not prepared in detail, therefore the expected impact cannot be assessed at the moment.	=	=
Packing	Packaging of closed spent radioactive sources in metal capsules/containers and borehole disposal of packages with spent sources. A permanent and long-term positive impact in the radiological aspect is expected on the safety and health of the population after the development and implementation of the program for deep borehole disposal due to the reduction of the radiation risk.	+2	0
<b>IV. DC of BAS IRT 2000 research reactor</b>			
<b>DC of BAS IRT 2000 research reactor</b>			
Preparatory activities for DC	The staging of the implementation includes administrative activities, preparation and adoption of a project by the Council of Ministers - no impact on the population is expected. Second stage: preparatory activities - A temporary and short-term, local, confined within the site, insignificant, negative impact in the radiological and non-radiological aspects is expected during the implementation of the preparatory activities for DC (for the workers). No impact is expected on the population.	0	0
DC activities	Restoration of the area of the site - A temporary and short-term, local, confined within the site, insignificant, negative impact in the non-radiological aspect is expected, during the implementation of the restoration activities of the site - for the workers.	0 - pop; -1 workers	0 - pop; -1 workers
<b>V. Decommissioning of Units 1-4 of Kozloduy NPP</b>			
<b>DC of units by continual dismantling</b>			
Ensuring safe and effective DC. Temporary storage of generated RAW and its subsequent transportation, conditioning and disposal	The process includes many dismantling activities, waste management, provision of temporary storage of activated materials, modernization of the site infrastructure, etc., which can have impact of a different nature. <i>Positive impact</i> - direct and indirect permanent and long-lasting, positive impact in the radiological aspect on the population from: reduction of the volume of RAW for disposal, from the decontamination of premises and buildings, from soil reclamation. <i>Negative impact</i> - short-term, temporary, insignificant negative impact in the non-radiological aspect during the construction of a facility for the production of packaging of the reinforced-concrete-containers type, during the construction activities for the modernization of the site infrastructure. A temporary and short-term local negative impact in the radiological aspect is expected during the implementation of the reconstruction of the Reactor compartment and the delivery of containers. The	0 - pop; -1 workers	0 - pop; -1 workers

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
	negative impacts are insignificant for the workers.		
<b>VI. Decommissioning of Units 5 and 6 of Kozloduy NPP and WSFSF</b>			
<b>Decommissioning of Units 5 and 6 of Kozloduy NPP</b>			
Development of pre-concept for DC of units 5 and 6 of Kozloduy NPP	No impact is expected, the activity is of administrative/expertise nature.	0	0
Development of DC plan for Units 5 and 6 of Kozloduy NPP	Definition of specific stages, deadlines and goals - no impact is expected, the activity is of administrative/expertise nature.	0	0
<b>DC of WSFSF</b>			
Development of pre-concept and plan for DC	No impact is expected, the activity is of administrative/expertise nature.	0	0
Execution of DC activities	It is expected that there will be an impact, but due to insufficient detailing of the tasks (as of now, there is no DC plan developed in detail yet), a full assessment of the impact is not possible	=	=
<b>VII. Adequate financial and human resources</b>			
<b>Ensuring adequate financial resources to implement the high level RAW management and decommissioning programmes.</b>			
Ensuring a long-term mechanism to accumulate funds.	Administrative activity (Adoption of an Ordinance on the procedure for establishing, collecting, spending and controlling the funds and on the amount of the due contributions to the fund for the construction of the DGR) – no impact is expected.	0	0
Methodology for determining the costs of financing the DC of Units 5 and 6 of Kozloduy NPP.	No impact is expected on the population, the activity is of administrative/expertise and financial nature.	0	0
Strategy for investment of financial assets of NFDF, RAW fund and DGR construction target fund	No impact is expected on the population, the activity is of administrative/financial nature.	0	0
Sufficient funds accumulated	No impact on the population is expected, it is about assessing the adequacy of a financial instrument (the funds).	0	0
<b>Ensuring and maintaining sufficient human resources by the licensee to fulfil its safety obligations in SNF and RAW management and DC.</b>			
Ensuring sufficient and qualified personnel for implementation of SNF and RAW management activities	Analysis of personnel needs for SNF and RAW management, a personnel needs plan, and personnel qualification - an indirect, permanent, long-term positive impact is expected in the radiological and non-radiological aspects from the provision of qualified personnel with the necessary expertise and qualifications for the implementation of the SNF and RAW management activities, which is expected to also lead to a reduction of their impact on the environment and the health of the population.	+2	+2

Strategic goals, tasks and measures for each objective	Analysis and Description of the Expected Impact	Aspect	
		Radiological	Non-Radiological
Ensuring sufficient and qualified personnel for implementation of DC activities.	Analysis of personnel needs for the implementation of DC activities, personnel qualification - an indirect, permanent, long-term positive impact is expected in the radiological and non-radiological aspects from the provision of qualified personnel with the necessary expertise and qualifications for the implementation of the DC activities, which is expected to also lead to a reduction of their impact on the environment and the health of the population.	+2	+2