

Strategic Environmental Assessment

Location Study for two New Nuclear

Power Plants - Netherlands

Scoping





STRATEGIC ENVIRONMENTAL ASSESSMENT – LOCATION STUDY FOR TWO NEW NUCLEAR POWER PLANTS SCOPING

Expert Statement

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INTRODUCTION AND OVERVIEW 1

Netherlands has notified Austria about the Strategic Environmental Assessment (SEA) procedure under Article 7 of the SEA Directive and Article 10 of the SEA Protocol for the location study of two new nuclear power plants. Austria is participating in the SEA. The Federal Ministry of Agriculture and Forestry, Climate and Environmental Protection, Regions and Water Management has commissioned the Federal Environment Agency to prepare an expert opinion on the submitted documents.

The Ministry of Climate Policy and Green Growth is the initiator for the choice of the location for the construction of two new nuclear power plants. After this step, the role of initiator is transferred to a commercial enterprise. The Minister of Climate Policy and Green Growth and the Minister of Housing and Spatial Planning together represent the competent authority for the scoping phase and the selection of the preferred solution.

The objective of the scoping phase of the project focusses on choosing one location for two new nuclear power plants. The new nuclear power plants are intended to have a combined capacity of 2,300 to 3,300 MWe. In the SEA, reasonable alternatives (locations) are to be compared on all the relevant aspects of the physical living environment to determine a preferred alternative. Chapter 6 of the Draft Memorandum on Scope and Level of Detail displays those aspects.

The provided documents, including the appendices, elaborate on the selection/exclusion process for several sites in the Netherlands. They include an evaluation of the policy establishing the framework for suitable locations for nuclear power plants (so called "safeguarding policy") that has been in place since 1986.

Based on Appendix 2, the following areas are on the longlist for being a suitable site:

- Borssele (Location of the current NPP)
- Ritthem (Scheldepoort)
- Sloegebied (Borssele/Vlissingen)
- Vlissingen-East (Thermphos Site)
- Eemshaven
- Gent/Terneuzen (Canal Zone)
- Maasvlakte I
- Maasvlakte II
- Terneuzen

Based on additional criteria, a shortlist was compiled. Those sites were mentioned in the Draft Memorandum on Scope and Level of Detail as to be analyzed in depth in the next step of the process:

Sloegebied/Borssele

1. EPZ north

2. Thermphos site

Terneuzen:

1. Western Mosselbanken/Paulinapolder

Maasvlakte II:

1. Amaliahaven west side

Eemshaven:

- 2. Westereemweg/Emmapolder
- 3. Eemshaven power plant
- 4. Eems power plant

In the National Energy Network Programme (PEH) of 2024, the safeguarding policy for Borssele and Maasvlakte I was reconfirmed. The PEH also notes that Eemshaven has been dropped as a safeguarded location. This decision was made during a legislative consultation meeting on 4 March 2021. The Dutch Parliament also asked the government not to build a nuclear power plant in the province of Groningen. The reason stated in the motion is that the consequences of gas extraction are still considerable in Groningen and earthquakes have continued to occur. The intention of the policy is to remove the Eemshaven as safeguard site. Formally, location Eemshaven has not yet been removed from the Quality of the Living Environment Decree.

In the SEA, the locations will be evaluated inter alia against the safety and nonsafety related criteria of the IAEA SSG-35 (Site Survey and Site Selection for nuclear installations). A distinction between hard and soft criteria is planned. A failure to meet the hard criteria will rule out a location. In the case of soft criteria, further analysis are planned in order to see whether the location may nonetheless be suitable.

2 **RECOMMENDATIONS**

Comprehensive site analysis helps to reduce the possibility of a severe accident with significant adverse transboundary environmental impact. Against this background, the Strategic Environmental Assessment should contain at least the following information:

- Presentation of the results of studies on earthquakes, flooding and extreme weather conditions;
- Presentation of the methodology used to determine the relevant external
- List of external events to be considered (including justification) and their characteristics;
- Information on the combinations of external events considered;
- Information on the safety margins;
- Presentation of the methodology and results used to address climate change related challenges for the site;
- Detailed description on the reasoning of using set distances for the population density criterion, including an elaboration on the reduction form the original work performed on 1986.

Additionally, it is recommended to consider inviting an IAEA Site and External Events Design Review Service (SEED) at a later stage of the process.

3 GLOSSARY

EU	European Union
IAEA	International Atomic Energy Agency
SEED	Site and External Events Design Review Service
SEA	Strategic Environmental Assessment
MW	Megawatt
MWe	Megawatt electric
MWth	Megawatt thermal
NPP	Nuclear power plant
PEH	National Energy Network Programme

REFERENCES 4

- 1. Antea Group (2025): Draft Memorandum on the Scope and Level of Detail; SEA-r location study for two new nuclear power plants, Rev.1, 16 May 2025
- 2. Antea Group (2024): Safeguarding policy update report, 30 August 2024
- 3. Antea Group (2025): Fact sheets nuclear power plants, April 2025;
- 4. Appendix 3: Evaluation of longlist (locations within areas)



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