Suomen ympäristökeskus
Finlands miljöcentral
Finnish Environment Institute

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Public

Swedish Environmental Protection Agency
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Finland's response to the notification in accordance with Article 3 of the Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention) regarding plans to construct an underground hydrogen pipeline between Haparanda and Boden in Norrbotten County in Sweden

The Finnish Environment Institute acknowledges that Finland has received the notification, dated 3 February 2026, and the consultation documents from Sweden in accordance with Article 3 of the Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention), regarding plans to construct an underground hydrogen pipeline between Haparanda and Boden in Norrbotten County in Sweden. This project is part of the planned transboundary Nordic Hydrogen Route (NHR) gas transmission route between Sweden and Finland.

The Nordic Hydrogen Route is a transboundary partnership project involving two gas transmission network companies: Nordion Energi in Sweden and Gasgrid Finland Oy in Finland. The goal of the NHR is to build approximately 1,000 kilometers of hydrogen infrastructure in the Bothnian Bay region by 2030. Furthermore, the goal is to promote the green transition by enabling access to green and competitive hydrogen gas and by strengthening energy and raw material self-sufficiency. In 2024, the project was granted Projects of Common Interest (PCI) status by the European Union. The hydrogen gas pipeline under consideration is one of six construction sections on the Swedish side of the NHR.

Consultation in Finland

According to the Finnish Environmental Impact Assessment Act (252/2017), the Finnish Environment Institute is the competent authority and responsible for information and consultation tasks under the Espoo Convention.

In its notification letter, the Swedish Environmental Protection Agency requested that Finland indicate its intension to participate in the EIA procedure and provide comments on the scope of the environmental impact assessment of the project on Finnish territory. The Agency also requested that Finland submit any comments from the Finnish public.

The public and the authorities were given the opportunity to comment on the Swedish consultation documents from 5 February 2026 to 26 March 2026, which were available on the website of Finland's environmental administration and on a platform operated by the Ministry of Justice in Finland for requesting and submitting statements electronically (lausuntopalvelu.fi). Statements were also requested from relevant stakeholders.

Remarks received during the consultation

The Finnish Environment Institute received nine (9) statements. The Finnish Environment Institute has prepared a summary of the original statements in English below. However, the original statements in Finnish or Swedish, which are enclosed to this letter, include important and detailed remarks which need to be examined and taken into consideration in their entirety.

The Ministry of Transport and Communications

The Ministry of Transport and Communications considers that Finland needs to participate in the EIA procedure, as we are examining the matter from the perspective of transboundary connections, particularly regarding security (including military mobility) and preparedness. We also request that the following matters be taken into account at this stage to ensure that traffic on transport routes leading to Finland is not jeopardised:

Impacts on traffic:
The construction of the hydrogen transmission network or its operation must not cause any impacts that could compromise traffic safety, flow, or the capacity of transport routes.
The construction of the transmission pipeline, the chosen route or the right-of-way to be acquired (10 metres) must not prevent, restrict or hinder Finland and Sweden’s development plans regarding transboundary connections.

Regarding the environmental impact assessment:
The environmental impact assessment must examine the impacts arising from the project’s implementation on transport routes crossing or running parallel to the pipeline route throughout the project’s lifecycle. The assessment must take into account safe and smooth traffic flow and the associated costs.

Coordination of transport routes and the hydrogen transmission network:
Intersections between the hydrogen transmission network and transport routes, as well as the siting of the transmission network in the vicinity of transport routes (runs parallel to transport routes), should be avoided wherever possible.

Special and heavy transport must be taken into account in the technical design of underpasses. The crossing of a hydrogen pipeline must not cause any hindrance to the construction or maintenance of transport routes.

Traffic impacts: the construction and maintenance (inspections, etc.) of the hydrogen pipeline must not cause traffic disruptions, e.g. road closures.

Emphasising the societal significance of transportation networks that intersect or run parallel to the hydrogen transmission network when assessing the significance of environmental impacts:

Some of the transportation routes that intersect or run parallel to the hydrogen transmission pipeline are part of the national network and primarily serve long-distance commuter traffic and commercial freight transport.

The Licensing and Supervisory Authority

Finland's need to participate in the environmental impact assessment procedure

The Licensing and Supervisory Authority considers that the project is likely to have significant environmental impacts on Finland, and therefore Finland needs to participate in the environmental impact assessment procedure. Significant environmental impacts on Finland are likely to arise in the River Tornionjoki-River Muonionjoki watercourse, as well as potentially on the landscape and the built cultural environment, people's well-being and living conditions, and wildlife.

Content of the consultation documents

The consultation documents state that the environmental impact assessment report, to be prepared in accordance with Article 4 of the Espoo Convention, will present in a single document the transboundary environmental impacts that have been identified and assessed in national EIA procedures. The Licensing and Supervisory Authority considers this to be a sound procedure. The Licensing and Supervisory Authority considers that consistent methods should be used in the environmental impact assessment in the border area between the states, and that the methods used should be described. If the project's planning stage allows the location of the project and its associated structures on the Finnish border should be presented in greater detail.
In the consultation documents, the project is presented using large-scale maps, which leave it unclear, for example, which station or stations are intended to be located near the banks of the Tornio River and where to.

Impacts on Natura areas

The project area is located within the River Tornionjoki-River Muonionjoki watercourse (FI1301912, SAC) Natura site, in the areas north and south of Oravaisensaari on the Torne River. The Licensing and Supervisory Authority considers that the project, in conjunction with other projects, may have significant impacts on the natural values of the Natura area (three habitat types listed in Annex I of the Habitats Directive and one species listed in Annexes II and IV(b) of the Habitats Directive).

The Licensing and Supervisory Authority considers that the project developer must either justify why a Natura assessment is not required – i.e. carry out a study on the need for a Natura assessment – or, alternatively, conduct a Natura assessment in accordance with Section 35 of the Nature Conservation Act for the River Tornionjoki-River Muonionjoki watercourse Natura area. The Licensing and Supervisory Authority emphasises that a cumulative impact assessment must be carried out appropriately for the entire catchment area.

Impacts on species

The Licensing and Supervisory Authority considers that, within the project's area of influence, an assessment must be carried out of the species occurring in the Tornio River area requiring strict protection under the European Union's Habitats Directive, Annex IV(a), and their potential breeding and resting sites, through appropriate field surveys. The Licensing and Supervisory Authority notes that this requirement also applies to the Siberian Flying Squirrel (*Pteromys volans*), which has been observed in recent years on the coast of the Bothnian Bay and in Tornio.

With regard to birdlife, birds that repeatedly use the same nest and their nests, as referred to in Section 70 of the Nature Conservation Act, are protected even outside the breeding season. The Licensing and Supervisory Authority considers that nests should be surveyed for those species whose territories may extend to the Finnish side. These include, for example, gulls, swallows and many diurnal birds of prey.

Water management

The Licensing and Supervisory Authority notes that the project's potential impacts on surface waters on the Finnish side mainly concern the transboundary Torne River. In water management planning, the Torne River has been classified as a very large peatland river, and in the preliminary classification for the fourth water management period, its ecological status has been classified as good. The hydrological-morphological status and physico-chemical status are high, but of the biological quality elements, periphyton and zoobenthos indicate a good status, whilst fish indicate high status. The chemical status is failing to achieve good due to the widespread presence of brominated diphenyl ethers, for which the quality standard is exceeded based on measurements.

According to the project consultation documents, crossings under large watercourses of significant ecological value, such as the Torne River, are preliminarily planned to be constructed using trenchless methods such as directional drilling. The Permit and Supervisory Authority considers that, in this case, the impacts on the watercourse itself are likely to remain minor. However, the transboundary impacts may occur, mainly due to temporary water turbidity.

Contaminated land

According to the project consultation document, there are no potentially contaminated areas registered in the County Administrative Board's EBH database within the survey corridor for the hydrogen pipeline to be located between Haparanda and Boden. According to the project consultation document, on the Finnish side, there are a few registered contaminated land areas located in the vicinity of the pipeline, at a distance of up to 150 metres. The Permit and Supervisory Authority maintains the national Soil Condition Information System (MATTI system), which contains information on land areas that are potentially contaminated, confirmed as contaminated, remediated and confirmed as clean.

Landscape and cultural environment

The Licensing and Supervisory Authority considers it uncertain whether the project will have significant impacts on the landscape and cultural environment in Finland. The project is located at both crossing points of the Tornio River within an area designated in the Western Lapland Regional Plan as important for the preservation of the cultural environment or landscape (ma 6098), which also includes the built cultural environment of the village of Vojakkala and the cultural landscape of the Tornio River, both of regional significance. The Licensing and Supervisory Authority considers that the project is located in an area that is sensitive in terms of landscape and cultural environment. At this stage of planning, there is no precise information regarding the location of the project's structures or the characteristics of the terrain at the site. It is possible that the line to be cleared for the project will be visible from the Finnish side during the construction period, particularly if it runs through forested terrain. Valve stations or metering and control stations may also be visible from Finland. The project may also cause cumulative impacts on the landscape and the built cultural environment in conjunction with the construction of Finland's national hydrogen transmission network.

Impacts on people's living conditions and quality of life

According to the consultation documents, there are areas intended for recreational use in the vicinity of the project in Finland, such as a recreational area and a boat maintenance site. The Supervisory Authority notes that these consist of a shelter and a boat launch. According to the consultation material, there is a high density of settlement on the Finnish side, particularly in relation to the southernmost location option, and the nearest residential buildings in Finland are situated 580–780 m from the pipeline on the Swedish side.

The Licensing and Supervisory Authority considers that the project may have landscape impacts on people's living conditions and quality of life, impacts on recreational use, and cumulative impacts in conjunction with the construction of Finland's national hydrogen transmission network, which should be assessed. Noise and vibration impacts are possible during the construction phase, but these are likely to be short-term. The accident risks associated with the project, for

example in the event of damage to the hydrogen pipeline, should also be described, and their probability and impacts on human health and safety assessed.

The Regional Council of Lapland

An EIA procedure relating to Gasgrid Vetyverkot Oy's Finnish national hydrogen transmission network is currently underway in Finland. The connection between the pipeline on the Swedish side and the pipeline on the Finnish side is planned for the Torne River area, and it will enable the transmission of hydrogen produced using green electricity between the two countries. There are two options for the convergence of the Finnish national hydrogen transmission network route and the Swedish Nordion Energi's Nordic Hydrogen Route. In both options, the pipeline will cross under the River Tornio. Both the southern and northern options are located on the Finnish side within the Tornio municipal area. In the assessment of the transboundary impacts of the Swedish section of the pipeline on the Finnish side, the focus is on the area around the River Tornio.

The Western Lapland Regional Plan, confirmed on 19 February 2014, is in force in the Tornio area. The Tornio River, which forms the border, is designated as a nature conservation area (SL 4051) in the regional plan and is part of the Natura 2000 network. The Tornio River is Europe's most important salmon river, with significant ecological, economic and cultural importance.

The hydrogen pipeline route also runs through the Torne River Valley (ma 6098), an area/site designated in the regional plan as important for the preservation of the cultural environment or landscape. Planning for the area must ensure the preservation of significant cultural-historical and landscape values. A 'need for green connection' designation has been indicated in the regional plan for the west bank of the river. This designation indicates existing or planned connections related to recreational areas or ecological networks. In more detailed planning, connections important for recreation and biodiversity must be safeguarded within the zone indicated by the designation.

In the view of the Regional Council of Lapland, Finland should participate in the environmental impact assessment procedure for the Nordic Hydrogen Route between Haparanda and Boden.

In the view of the Regional Council of Lapland, the project's likely significant transboundary environmental impacts relate to the River Tornio, and consequently, impacts may also affect the Bothnian Sea. The impacts of the project, both during construction and operation, on the Tornio River water system, fishing, the landscape and the cultural environment must be properly assessed. In addition, the impacts on local settlements, recreational areas and the ecological network must be assessed. Any safety risks that may affect the Finnish side must also be assessed.

Municipality of Keminmaa

The planned pipeline is located in the immediate vicinity of the Finnish border in the border town area of Haparanda and Tornio. Consequently, the project's impacts are not limited solely to Swedish territory. The impacts may extend to transboundary watercourses, such as the River Tornio, and possibly to groundwater areas.

The project may also have an impact on land use and planning in Finland, particularly in the Tornio area, should the development of energy infrastructure and related activities expand or extend to the Finnish territory. Safety risks, such as potential accidents and incidents, may also extend into Finnish territory due to the close connection between the border cities.

Furthermore, impacts on the natural environment, including ecological connections and aquatic ecosystems, may be transboundary in nature. The project is part of a broader Nordic energy infrastructure development initiative, which is also of strategic importance to Finland.

Reindeer Herders' Association

The project manager, Nordion Energi H2 AB, intends to apply for a licence under the Swedish Pipeline Act to construct an underground hydrogen pipeline between Haparanda and Boden in Norrbotten County, Sweden. The section of the project in question is part of the Nordic Hydrogen Route (NHR) gas transmission network planned between Sweden and Finland, which is a joint Nordic project between Gasgrid and Nordion Energi. The pipeline route is approximately 127 kilometres long and runs through the municipalities of Haparanda, Kalix, Luleå and Boden in Norrbotten County. As the project is cross-border in nature, it is expected to have cross-border environmental impacts.

In Finland, Gasgrid Vetyverkot Oy is planning the national hydrogen transmission network from southern Finland to Tornio. For the purposes of the EIA procedure in Finland, the project has been divided into five geographical sections, of which Sea Lapland and Northern Ostrobothnia are located within the reindeer herding area. These EIA procedures assess the impacts on reindeer herding on the Finnish side. The Reindeer Herders' Association considers that Finland needs to participate in the Swedish EIA procedure to the extent that the project is assessed to have cumulative impacts with the project on the Finnish side.

The Finnish Heritage Agency

In the opinion of the Finnish Heritage Agency, Finland does not need to participate in the environmental impact assessment procedure for the Nordic Hydrogen Route between Haparanda and Boden, Sweden, regarding cultural environment impacts.

The Ministry of Agriculture and Forestry of Finland, The Finnish Border Guard, The Finnish Safety and Chemicals Agency are thanking for the opportunity to comment and had no comments on the matter.

Participation in the transboundary EIA procedure

Based on the statements received and its own deliberations, the Finnish Environment Institute states in accordance with Article 3(3) of the Espoo Convention that Finland intends to participate in environmental impact assessment of the underground hydrogen pipeline between Haparanda and Boden in Norrbotten County, Sweden. The project is part of the planned Nordic Hydrogen Route (NHR) gas transmission route between Sweden and Finland.

Conclusions

The Finnish Environment Institute states that based on the responses received, the transboundary hydrogen project between Finland and Sweden may entail significant environmental impacts affecting natural ecosystems, land use, infrastructure, and transboundary environmental conditions. In light of the potential consequences, it is deemed both appropriate and necessary for Finland to engage in the transboundary environmental impact assessment. Participation ensures that environmental impacts on Finnish territory are adequately examined and that considerations on both sides of the border are effectively integrated into the decision-making process.

The Finnish Environment Institute notes that the environmental impact assessment should examine cumulative and transboundary impacts, interactions with existing and planned land-use structures, potential effects on reindeer husbandry and other traditional livelihoods, as well as safety aspects related to hydrogen production, storage, and transport. Maintaining stakeholder engagement and transparent information exchange between Sweden and Finland throughout the environmental impact assessment and licensing procedures is also of the utmost importance.

Furthermore, the Finnish Environment Institute endorses the developers' approach that the environmental impact assessment report, to be prepared in accordance with Article 4 of the Espoo

Convention, will be presented in a single document. This document will cover the transboundary environmental impacts that have been identified and assessed in national EIA procedures. This approach necessitates the implementation of consistent methodologies and approaches in the environmental impact assessment within the designated border area between Sweden and Finland. The content of the EIA assessment report and the methods employed must be thoroughly delineated in accordance with the requirements presented in Annex II of the Espoo Convention. The content must also consider the feedback provided in this letter and its attachments.

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Senior Officer,
Point of Contact to the Espoo Convention — Ulla Helminen

This document has been electronically signed. The electronic signatures can be verified from the register office of the Finnish Environment Institute.

Appendices The nine (9) statements received:
Ministry of transport and communications
Finnish Supervisory Agency
The Regional Council of Lapland
Municipality of Keminmaa
Reindeer Herders' Association
The Finnish Heritage Agency
Ministry of Agriculture and Forestry of Finland
The Finnish Border Guard
The Finnish Safety and Chemicals Agency (Tukes)

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Ministry of the Environment