15 June 2022

Land use and environmental policy

Approved at the Executive Management Group meeting of 15 June 2022. The policy will be updated in line with the schedule for approving the management principles.

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1 Introduction

Fingrid Oyj is the national transmission system operator responsible for the functionality of the electricity system of Finland in accordance with the Electricity Market Act. We are responsible for more than 14,000 kilometres of transmission lines, over 100 substations, and several reserve power plants. The company is tasked with safeguarding society's access to electricity under all circumstances in a cost-effective way and promoting the clean, market-based electricity system of the future.

Fingrid is committed to responsible and ethical operating practices to promote sustainable development in line with its operating principles. Our operating principles also include the principle of precautionary action in environmental matters, and Fingrid is committed to the UN Global Compact. We have also made a commitment to human rights.

We build and maintain the electricity transmission grid over the long term to meet the needs of a clean electricity system. The electricity system is undergoing major changes, and it is the key to mitigating climate change. Connecting new, emission-free electricity generation to the electricity system requires a stronger main grid.

We identify the negative impacts of our operations on the climate and the environment, and we take action to reduce them as stated in this land use and environmental policy. On the other hand, Fingrid's activities also have a substantially positive climate effect and a carbon handprint, as we strengthen the main grid to cater for clean electricity generation so that Finland can realise its target of becoming carbon-neutral. At the same time, we are reducing the carbon footprint of the losses inherent in electricity transmission.

In addition to climate goals, we promote biodiversity in transmission line rights-of-way, as well as the safe use of transmission line rights-of-way in a manner that benefits people and nature. We are aware of our responsibilities, and we develop our practices to limit the spread of invasive species as part of our operations. We also develop new solutions for recycling and reusing materials.

Sustainable working methods in matters pertaining to land use and the environment are a part of everyone's day-to-day work at Fingrid. We are a pioneer in the life cycle management of the main grid, and we consider land use and environmental impacts in our planning, construction, operation and maintenance activities and when we dismantle old sections of the main grid. We work on ways to consider the environmental aspects of our procurement, and we aim to be energy efficient in everything we do.

Our operating model is based on strong client expertise because our construction and maintenance activities are outsourced to service providers and contractors. We ensure that our service providers and contractors are committed to our sustainable operating methods by incorporating them into contract terms, requirements, training and audits.

We evaluate our activities and continuously develop our operating methods. We monitor developments in the legislation governing our sector, and we actively seek to participate in the development of legislation that affects our core activities. We undertake and promote research and development related to the land use and environmental impact of the main grid, including the potential health effects of electric and magnetic fields.

2 Land use planning, rights to use transmission line areas, and land acquisition

We actively participate in land use planning and issue statements concerning various levels of planning. This ensures that the land use reservations required to develop the main grid and the associated impacts on the surrounding environment are evaluated. Furthermore, we steer urban planning and construction in the vicinity of the main grid by issuing statements containing land use restrictions and safety guidelines.

We expropriate transmission line rights-of-way to enable the construction, operation and maintenance of transmission lines. Landowners retain ownership of the land and vegetation in transmission line rights-of-way. Cooperation with landowners in transmission line rights-of-way and nearby areas is important to Fingrid.

Our primary objective in the procedure for expropriating land for new transmission line rights-of-way is to obtain the landowners' consent for the transmission line route in advance. When we renew transmission lines, the usage rights are updated in accordance with the expropriation procedure, which involves consulting the landowners and compensating them for any additional harm. We monitor the development of the expropriation procedure and compensation principles, and we are actively involved in such development.

When we acquire land for substations and reserve power plants, our starting point is to seek voluntary transactions. The sale price is set transparently and fairly. If necessary, we may use an expropriation procedure to acquire plots of land.

3 Transmission lines

3.1 Planning

In accordance with the nationwide land use objectives stipulated in the Land Use and Building Act, existing transmission line routes are primarily used to plan transmission line alignments. We utilise the transmission capacity of the existing network as efficiently as possible before we build any new lines. When we plan new transmission line routes, we seek solutions that avoid construction in the immediate vicinity of housing. We communicate our planning process openly, and we interact with landowners and other interested parties.

When we plan transmission line routes, we consider the environmental information, the route's compatibility with other types of land use in the area, and the perspectives arising from dialogue with stakeholders. We aim to minimise the harmful impacts of the line within the limits of public interest and the technical and economic constraints. We mitigate the adverse effects on land use, landscapes and the environment through the optimal placement of towers and technical solutions (such as field towers and markers to prevent bird collisions). We ensure that the electric and magnetic fields caused by transmission lines are below the recommended maximum values.

3.2 Construction

When we build a transmission line, we seek to cause as little harm as possible to the environment, landowners, and the nearby population. Nevertheless, the need to ensure the supply of electricity, the system security of the main grid and occupational safety may limit the possibility of scheduling work at times when the environmental impact is the smallest, such as when the ground is frozen. We notify landowners in advance of construction, repair or pay compensation for any damage we cause and clean up after ourselves. We ensure chemical safety by storing fuels and lubricants appropriately, keeping spill response equipment at hand, and instructing our contractors and service providers on how to work safely.

3.3 Maintenance and transmission line areas

We maintain transmission lines to ensure that the transmission line structures and areas remain safe and compliant with the electrical safety regulations. We make agreements on the use of the routes necessary for transmission line inspection and maintenance activities in line with the recommendation on usage fees for private roads. We notify landowners in advance of heavy-duty maintenance work, repair or pay compensation for any damage we cause and clean up after ourselves.

When we clear vegetation from transmission line areas and manage the growth of trees in the border zones of such areas, our top priorities are the safety of people and the system security of the transmission line. We consider nature and special areas, such as yards and gardens. Transmission line rights-of-way are cleared mechanically via selective clearing. In other words, we leave low-growing vegetation in the right-of-way. For landscape and recreational reasons, we use different means of mitigating the environmental impact of clearing in transmission line areas for each case individually,

including by increasing the frequency of clearing. We encourage the diverse utilisation of transmission line rights-of-way while ensuring electrical safety.

Depending on the phase of the cycle, trees in the border zone are managed by pruning the tops of the trees using a helicopter saw, felling individual trees that exceed the redemption size, or agreeing on the comprehensive clearing of trees. We do not prune trees using helicopters near housing. We notify landowners in advance before clearing trees from transmission line areas or managing trees in the border zone. We always make separate agreements with each landowner concerning the treatment of yard and garden areas.

4 Substations and reserve power plants

4.1 Planning

When we design substations and reserve power plants, we investigate other land use in the area and environmental protection perspectives in addition to electrical safety. We assess the environmental risks of the operation and select the most suitable risk management actions for the specific case, such as alternative chemicals, shielding pools and leak monitoring equipment. We are committed to promoting and using technology that is free from sulphur hexafluoride (SF6) whenever it is technically possible. When we select new equipment, we set limits for noise emissions. We measure noise levels to verify compliance with the noise emission requirements. If necessary, we mitigate the impact on landscape near housing.

When we design substations, we avoid placing new transformer substations in groundwater areas. We strive to reduce emissions from reserve power plants using technical solutions, automation and control systems, and methods of carrying out trial runs to ensure that the plant will start up when needed.

4.2 Construction

We reduce the environmental impacts of the construction phase by means such as efficient sorting and recycling of waste and work methods that prevent chemical damage, noise, vibrations and dust. If blasting work is required on a worksite, we survey the nearby buildings in advance. We notify the neighbourhood of the construction work in advance.

4.3 Maintenance

We manage the environmental risks of maintenance by means such as leak alarms and fire extinguishing equipment, as well as by training and auditing service providers. All our items of equipment containing SF6 gas are continuously monitored, and only certified personnel are permitted to handle the gas. Our accident preparation measures consist of planning, oil spill response equipment and drills. We handle and store only the essential chemicals at substations and reserve power plants.

We improve the environmental safety of substations and reserve power plants during refurbishment projects.

5 Material recycling

We deliver decommissioned materials for recycling or reuse with the aim of maximising the recycling rate of materials. When we dismantle towers, we remove any concrete foundations from yards and fields.

We pay particular attention to the safe handling of chemicals and preparedness for oil spills.

6 Dialogue and communication

We take landowners and other interested parties into consideration in the design and construction of the main grid, as well as in operation and maintenance, ensuring that information is available and people have the opportunity to participate. If necessary, we make agreements with landowners concerning work that takes place on their land and the management of vegetation in advance. The environmental impact assessment (EIA) procedure for transmission line projects and the related dialogue is an important aspect of our transmission line planning process.

We communicate our activities transparently and fairly, and we collect feedback. We use feedback to improve our operations.

We communicate land use and environmental matters as part of our sustainability report. We are open to suggestions for development.