

## Elenia Advances Weatherproof and Future-Ready Electricity Networks in Finland

GEODE Finnish member, [Elenia](#) continues to **strengthen the resilience** and capacity of its **electricity network** through major **investments in underground cabling** and grid modernisation. **Since 2012**, the Finnish DSO has **built more than 35,000 kilometres of weatherproof underground cable network**, replacing vulnerable overhead lines and **increasing the underground cabling rate** of its 77,400 km network **from 23% to over 67%**. Total **investments since 2012** amount to more than **€1.8 billion**. These efforts support compliance with the **Finnish Electricity Market Act**, which requires **distribution networks to become weatherproof by 2036**, limiting outages to a maximum of six hours in zoned areas and 36 hours in other areas. In **2026** alone, **Elenia is investing around €140 million** in its network. This includes the construction of more than **1,700 kilometres of new underground cable network** replacing ageing overhead lines, as well as investments in high-voltage networks and primary substations driven by rapidly increasing capacity needs.

**Elenia** has also recently **updated its Distribution Network Development Plan (DNDP) for 2026-2036**, which is currently ongoing public consultation. In line with the plan, the company's **strategic objective is to increase the underground cabling rate** of its electricity network **to 90% by the end of 2036**. Achieving this target will require the construction of more than 20,000 kilometres of additional underground cable network to replace ageing and weather-exposed overhead lines. The plan also highlights the growing **need for investments in network capacity**, particularly in high-voltage networks and substations, as **available grid capacity has decreased** significantly and around 35% of the network is already subject to constrained capacity conditions. To solve this, the DNDP estimates that approximately **€2.3 billion of additional investments** will be **required**. Of this amount, around €1.6 billion will **support security of supply investments**, mainly underground cabling, while €700 million will be dedicated to **capacity expansion and energy transition-related investments**.

One **example** of these investments can be found in the municipality of **Nokia**, where Elenia is currently carrying out **projects involving 39 kilometres of new underground cable network** as part of the company's broader 2026 investment programme. The works include the installation of **23 kilometres of medium-voltage cable and 16 kilometres of low-voltage cable**, alongside the replacement of old pole transformers with 18 new park transformer substations. Additional renewal projects are also underway in the area, including a joint excavation project with optical fibre company Lennu.

The company also provides an online **"Weatherproof Map"** (in Finnish), allowing customers and stakeholders to follow **planned and ongoing construction and network improvement** works across its service area. Additionally, Elenia provides an **interactive capacity map service**, offering convenient access to capacity information for high- and medium-voltage networks. **Elenia's capacity map** is available [here](#).