

Fortum's Annual Report 2014

Fortum is an energy company highly committed to sustainability. We strive to respond to the needs of our customers by generating, selling and distributing low-carbon electricity and heat and by offering energy-sector expert services.

Reducing environmental impacts

We actively work to [mitigate the environmental impacts](#) of hydropower and participate in research and projects with various stakeholder groups. Environmental impacts are mitigated and compensated for through obligatory measures set forth by permits as well as through voluntary measures. The most important obligatory measure is the stocking of fish. In Sweden, in compliance with the court's decision, we removed the Stackmora Dam in 2014 which had previously prevented the migrating of fish in the water system.

Fish stocking

Hydropower is produced in compliance with permit decisions for hydropower plants and the regulating of water systems. The permits require compensation for potential negative impacts, e.g. with fish stocking.

To compensate for the environmental impacts of hydropower production on the fish industry, in 2014 Fortum released about 260,000 salmon and sea trout smolts, and about 360,000 sea whitefish smolts in Finland. Additionally, we stocked lake trout, landlocked salmon, pike perch, European grayling and whitefish in inland water systems. In 2014 we applied for a permit amendment to increase the amount of our fish stocking in the Oulujoki river.

In Sweden, we stocked about 300,000 salmon and sea trout smolts into rivers that

flow to the Baltic Sea. Additionally, we stocked about 220,000 landlocked salmon and lake trout smolts in the Klarälven river and Vänern lake. We stocked about 300,000 trout, European grayling and char juveniles and about 45,000 eels in other inland water systems.

Voluntary environmental projects

The environmental impacts of hydropower production were mitigated and studied also through [voluntary projects](#) implemented in collaboration with local stakeholder groups. In 2014, we spent about EUR 600,000 on implementing voluntary projects.

Collaboration projects typically include improvements to the recreational use of water systems and to the biodiversity in developed water systems. Some of these projects were funded with proceeds from the sale of eco-labelled electricity.

In autumn 2014, we decided to allocate significant additional funding for projects to restore migratory fish in the Oulujoki river in Finland. The practical planning will start in 2015.

A recreational fishing area was established in the Oulujoki river's Montta dam reservoir, and the migrating fish population was strengthened by stocking Atlantic salmon smolt and by transferring spawn-ready salmon over the dams into spawning areas in

the Oulujoki river tributaries. Restoration of river fish habitats continued at two points along the Vuoksi river: in the section of the river between the Tainionkoski and the Imatra power plants. We also participated in the city of Imatra's Urban Brook project.

During the year in Sweden, restoration opportunities to protect the Gullspång river's unique salmon population were studied. In the Bultsjöån river, the success of the integration of the endangered freshwater pearl mussel was monitored through a research project. In Klarälven river studies targeted ways to improve the survival of smolt as they migrate downstream from spawning areas.

Improving dam safety

We are systematically improving [the safety of our hydropower plant dams](#). We monitor the condition of the dams in accordance with the safety inspection programmes approved by the dam authority. In 2014, we carried out the biggest refurbishment projects on our hydropower plant dams in Sweden. Our biggest dam safety project (at the Höljes hydropower plant) continued in 2014. The project is scheduled for completion in 2015. Other major dam safety projects that we have completed were the refurbishment of the Spjutmo and Parteboda power plant dams. We launch a new project to refurbish the Lima power plant dam.