



Clean energy from rural regions

As energy prices increase, regions can make themselves more competitive and attractive by obtaining a secure energy supply and using it efficiently. The VIS NOVA project focuses on helping rural regions to produce their own energy sources and improve efficiency, to the point where 100 percent of their energy needs are generated locally. The project helps regions to research best practices and apply pilot measures before taking action on new energy policies.

The CHALLENGE

of VIS NOVA pursues an integrated approach which addresses both the supply (provision of sustainable energy) and demand side (efficient use). Thus, the VIS NOVA partners aim to integrate a concept of energy autonomy based on renewable sources and energy efficiency into regional development policies, public authorities in rural regions need adequate planning instruments to avoid isolated approaches that fail to unfold the full potentials for territorial cohesion, competitiveness and employment. Furthermore, public authorities lack profound knowledge about the transferability of European good practices and have poor access to cutting-edge innovations in intelligent energies.

The overall OBJECTIVE

of VIS NOVA is to cover in the medium and long term up to 100% of the territory's energy demand by energy being produced off regional resources. Sustainability and a secured supply shall be turned into a location factor; the possibility to determine prices can be exploited as a new incentive to promote economic development. Moreover, regional added value and hence employment in the energy sector is strengthened.

With other words, the aim is to integrate instruments to promote energy efficiency ("Energy Efficiency Plan") based on EU good practices, new technologies and transnational learning into regional development policies. The project therefore assists rural regions to plan and to take action to create new value added in the renewable energy sector, to

"Thanks to the VIS NOVA project, annual expenditures on heating and domestic hot water were decreased by over 50%"

Balázs Csillag
director of the spa and sports centre in Szekszard

secure local energy supply, to improve energy efficiency performances, to strengthen their competitiveness as locations for economic activities, and to promote territorial cohesion comprehensively.

Furthermore, pilot investments and feasibility assessments subject to transnational peer review test and demonstrate new means to exploit endogenous energy sources in a sustainable way and enhance their efficiency.

Eine

The recently installed heat generation in the spa and sports centre in Szekszard in Hungary is one of those pilot investments. The formerly heat generation with gas was replaced by the use of geothermal heating. By a drilling depth of 350 m warm water with a temperature of 32° is gained. Two heat pumps with 647,5 kW heat output each let the water become assimilated to the normal temperature of use to heat the bath and sports centre afterwards.

The construction was combined with an installation of a solar thermal system on the southern side of the spa. On an area of 80 m² solar panels capture the heat of the sun and feed those into the central heating.

The city of Szekszard could reduce the operating costs significantly with this investment in renewable energy, hence the city causes sustainable operations of the spa and sports centre.

Furthermore it isn't necessary to burn fossil energy any longer, which would cause CO₂ emissions. A photovoltaic system to supply with electric energy is being planned and should complete the system configuration.

56%

reducing of the costs in cause of the heat generation in the spa and sports centre

90 m³/h

water is gained with a temperature of 32°C

350 m

drilling depth for gaining warm water

110.000 €

were spend for the installation



Project: use of geothermal energy in the spa and sports centre

Costs: 110.000 €

Effect: reducing the energy costs more than 50%

Year of construction: 2012