



## Nature for energy production, and vice versa: is it possible?

Taking the role of the “auditor” at PANNONPOWER, WWF Hungary would like to contribute to the wise use of biomass, and safeguard valuable landscapes. The core of the agreement is that PANNONPOWER supports WWF Hungary and that WWF Hungary advises the company how it could be more “green”, it gives an opinion about the PANNONPOWER’s strategic plans on biomass use and it gets involved in the company’s PR activities. It is a kind of auditing of the company’s way of using biomass and in turn supporting it in the public media.

It is very important to emphasize that the agreement states that should PANNONPOWER not consider WWF Hungary’s opinion or act against WWF Hungary’s basic values regarding conservation and environmental protection then WWF Hungary can immediately sever the agreement. This paragraph ensures that the agreement should not end up as mere “greenwash”.

The main operational focus will be the ecological (and landscape) impacts of the energy-grass and the energy plantations, the legislative status of the energy-wood plantations, and the development of appropriate financial mechanisms. The two organisations are also going to work together to improve energy efficiency and raise public awareness about the importance of renewable energy.

## Background information

**PANNONPOWER** is a Hungarian power plant located in Pécs in the south-western part of the country owned by an American investment fund. The power plant was established in the 1960’s and has used coal for producing electricity. The company has four electricity producing blocks and it has been producing electricity to the Hungarian network and heating for the city of Pécs (population: 200,000).

**WWF Hungary** started its operations in Central and Eastern Europe more than a decade ago. Its conservation activities in Hungary concentrate on forests, rivers, extensive land use, the protection of certain endangered species, and the environmental challenges of joining the European Union. One of its projects – One Europe, More Nature – is discovering and demonstrating innovative approaches to nature conservation through the facilitation of new partnerships, switches from failed to progressive land-uses, and the stimulation of new economic activities based upon sustainable use of available natural resources.

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WWF’s One Europe, More Nature initiative is a pan-European project making positive changes to valuable landscapes across the continent. It is funded by WWF Netherlands and is jointly managed by WWF’s teams on agriculture, freshwater and forestry. Contact: Charlie Avis • OEMN project leader • Tel: (+36 1) 214-5554/126 • [charlie.avis@wwf.hu](mailto:charlie.avis@wwf.hu)



# Green energy

## **Mercy or curse for abandoned landscapes?**

What futures for European landscapes? What are the major driving forces influencing the countryside? How will Hungarian farmers respond to changing economic conditions, and what will be the impact of EU membership and reform of the Common Agricultural Policy? Are there new economic markets or products or sectors stepping in to the Hungarian landscape?

WWF's One Europe, More Nature project attempts to answer such questions. One such emerging market with enormous implications for landscapes and biodiversity is the production of biomass for so-called "green" energy. WWF Hungary is seeking to influence this development to push these seemingly inevitable changes in a favourable direction.

PANNONPOWER, a power plant company in southwest Hungary, interested in alternative biomass supply in their energy-service. WWF Hungary began a co-operation with PANNON-POWER in October 2004, because WWF globally supports the principle of wise use of green energy. In fact the share of green energy in Hungary's energy consumption is about 1.4% in 2004 (estimated data) and even in 2010 it is expected to be 3.6% according to the country's EU Accession Treaty. WWF Hungary believes this proportion must be increased and supports attempts to improve this situation. However, "green energy" is not always that "green" and there can be serious conflicts between even so-called green energy and environmental considerations and nature conservation.



Photo: Mátyás Prommer

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PANNONPOWER, burns about 350,000 tons of wood per year (equivalent to 280-350,000 cubic metres depending on the water content of the wood). They only use wood from the region. On the long term, however, they would like to use other types of biomass like "energy-grass" (a special breed of *Elymus elongata*), agricultural waste and logging waste, too. They intend to get involved in energy (tree) plantations as well, and the plan of the company's management is to improve the local use of the available biomass in the region.

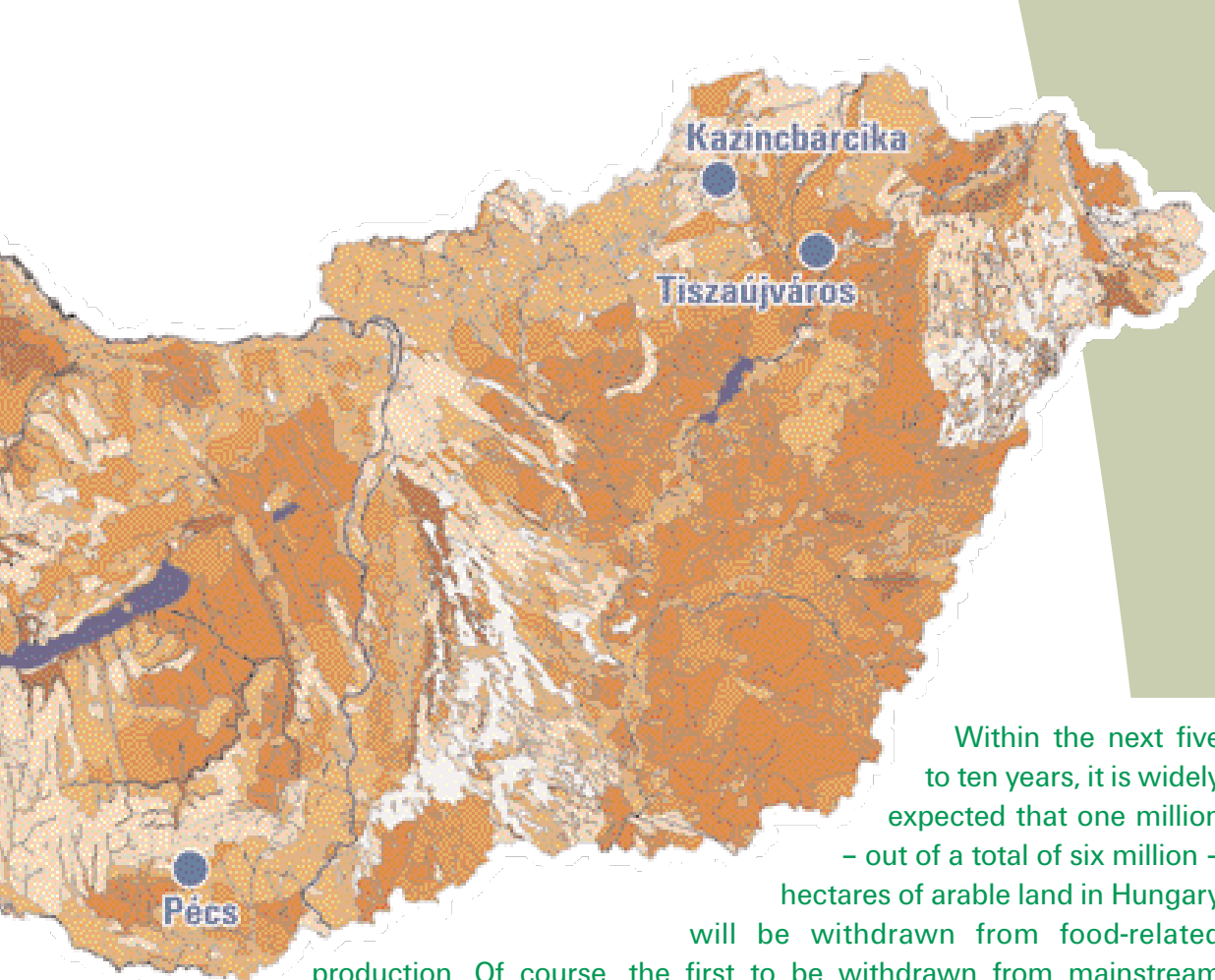
PANNONPOWER is working on a feasibility study in the Transdanubian region, which is about setting up an agro-energetic programme. The programme would create energy plantations in the region aiming to provide fuel for the power plant and as a consequence to use abandoned agricultural lands and thus to contribute to a more natural countryside through providing reliable income for local farmers.

The company also aims to use biomass not only in one big central power plant but also in decentralised small local power plants, too. The long-term vision of the company is to develop a technology to build mini biomass-fired power plants for settlements with 10-15,000 inhabitants in order to optimise the use of available agricultural biomass potential. That would mean a network of small individual power plants using the locally produced biomass, cutting down on transport impacts, emissions, and other negative factors.



Photo: PANNONPOWER





Within the next five to ten years, it is widely expected that one million – out of a total of six million – hectares of arable land in Hungary will be withdrawn from food-related production. Of course, the first to be withdrawn from mainstream agriculture will be the least productive lands, including low-elevation, flood-threatened, peripheral areas. These are often the areas with the highest value for wildlife. This map shows the soils of Hungary on a colour-scale from white to red. The light areas are standing for the least productive areas and the dark red patches are indicating the best soil conditions for conventional arable farming. It is expected that the least favourable lands around the indicated power-plants (in Pécs, Kazincbárcika, Tiszaújváros) will be the first in the biomass-conversion.

### **What future for these 1 million hectares?**

Three scenarios are envisaged, the pessimistic: complete land abandonment and uncontrolled colonisation by invasive species; the optimistic: subsidy-based wetland restoration using EU funds and stimulation of new economies based on nature; the third way: to ease the energy-hunger, and to use those lands to produce biomass for power generation.



Photo: PANNONPOWER

“ Although it was not mandatory that time, the company was the first in the country to introduce various filters in the 1970’s in order to cut down on air pollution. To follow its innovative traditions, PANNONPOWER was again one of the first in the country to switch one block from coal to biomass in 2004. ”

László Somosi – chairman-CEO of PANNONPOWER Inc.