



Power station near Minsk to reduce level of greenhouse gas emissions

Electricity generated from waste

New electricity power station, near Minsk, cutting harmful emissions

By Yuri Chernyakevich

These days, electricity can be generated from diverse sources, including wind and solar power. Communal waste can also be converted into power, as evinced at Severny, near Minsk. Since mid-July, electricity has been generated there from waste gases, ensuring that power is both ecologically friendly and efficient. It can produce electricity for over 1,000 flats in the Belarusian capital and, once full capacity is launched, will be the largest site dealing with waste decontamination

within the post-Soviet space and Eastern Europe. It already generates 2.8MWt but the figure should double, once additional waste processing facilities have been installed.

The project is quite new for Belarus, with \$6m of investment due to be repaid within five years, funded by TDF Ecotech (a Belarusian subdivision of Swiss TDF Ecotech AG). The latter is known in Belarus for its successful realisation of several other programmes in the field of alternative energy. The company has built bio-gas facilities at Snov and Lan agro-industrial complexes,



Facility to extract power from landfill gas launched

as well as an electricity power station at Trostenets (near Minsk), providing electricity to thousands of families in the capital and the Minsk Region, using alternative energy sources.

The Chairman of the TDF Ecotech Board of Directors, Dmitry Vasiliev, explains that the new Severny processing station is unique in occupying an existing site for solid

communal waste; it should be viable for over 15 years, since waste will continue to arrive. Once 'stores' have been exhausted, the facility will be dismantled and moved elsewhere.

Importantly, the new station should cut harmful gas emissions into the atmosphere by over 80,000 tonnes annually (since organic waste emits gases on putrefaction).

Methane is the key element, being 30 times more potent than hydrocarbon gas; burning it off will greatly reduce harmful emissions.

TDF Ecotech AG has many plans relating to Belarus, including four further alternative energy projects — all approved by Minsk authorities. We are likely to see more waste processing electricity stations near the capital in future.

Taking our electronics to Japan

Belarusians introduce their scientific innovations at international *Techno-Frontier Expo* in Tokyo, Japan

By Dmitry Sechenov

Taking electronics to Japan is rather like taking your own samovar to Russian Tula. Nevertheless, they were among the main exhibits of Belarus at the Tokyo International Exhibition Centre in mid-July, for the Electronic & Mechatronic Devices and Components *Techno-Frontier 2013 Expo*.

The State Committee for Science and Technology organised our stand, at which 35 research and development, educational and academic establishments and enterprises were represented, alongside private research-and-production companies. The pavilion covered 144 square metres, showing about 150 electronics, mechatronics, green energy and energy efficiency exhibits.

Techno-Frontier unites 11 specialised industrial exhibitions, covering such spheres as electro tech-

At international *Techno-Frontier Expo* in Tokyo

nical devices, drive mechanisms and transmission mechanisms, automatic control and operation systems, software products, energy transmission and protection against electromagnetic waves. A conference on innovations in the field of

electronics was well attended, exploring today's trends.

Last year, more than 450 companies and research centres showcased their scientific and research products at the event, rising to about 500 this year.

Heat and electricity from local raw materials

A new mini heat electro power station is being built in the town of Baran in the Orsha District, designed to burn local peat. Since briquettes are unnecessary, it makes the process cheaper. Experts from Austria, Italy, Ukraine and Slo-

venia are working alongside Belarusians, to ensure the plant comes into operation this year. The new Baran station will work together with the old boiler-house, supplying the town with not only heat but electricity.

Expenses cut in half

Belarusian success in reducing energy use praised by Eurasian Development Bank

EDB analysts have examined the degree and state of energy efficiency measures in Belarus, Russia, Kazakhstan and Ukraine, finding positive trends. They note that Belarus has achieved the greatest success, having reduced energy use by 50 percent since 2000. Thanks to comprehensive policies and adopted laws, work has been systematised as a national priority.

Energy saving is also extremely important to Kazakhstan, where

energy losses exceed two-thirds of total energy produced. Russia's energy efficiency remains above the developed economies' average, having improved between 2000 and 2008. Ukraine also needs to raise its energy saving.

EDB experts believe that countries within the Single Economic Space states, alongside Ukraine, need to promptly find low-cost ways of enhancing energy efficiency: reducing energy losses (including eliminating technical losses of electricity and heat) and the appliance of administrative and saving measures.