Clean energy from waste

Bio-gas facility built by Swedish Vireo Energy and operating on landfill gas, launched at solid communal waste facility near Vitebsk, saving almost Br1bn within few months

Bio-gas unit to generate electricity from landfill gas, located near Orsha, saving billions of Roubles while disposing of solid domestic waste in eco-friendly manner

By Sergey Gomanov

Vitebsk Regional Executive Committee signed the investment agreement with the Swedish company back in 2011, with around $9m of investment planned, for constructing three bio-gas facilities. Two are already operational: in the Orsha District and near Vitebsk. During assembly, the Swedes used their own technologies and equipment, drilling holes in the waste rock mass, then pumping out and burning its waste bio-gas. Meanwhile, a gas piston engine drives an electric generator.

Since late March, when Vitebsk's facility launched, over 1,700,000kW/h of electricity has been generated from the site, notes the Head of Vitebsk's Regional Department for Supervising the Rational Use of Fuel-and-Energy Resources, Alexander Kravchenko. He adds that over 470 tonnes of conventional fuel would have been needed to achieve the same figure with a traditional approach. "We'd have to spend around Br1bn to buy this electricity, so the bio-gas facility has helped us save money. Clearly, construction of bio-gas plants is important and profitable, while using waste gases," he explains.

Vitebsk's facility produces a modest single megawatt of electricity per day; five or six similar plants would be needed to provide Vityaz TV Works with electricity. Only a couple of major facilities exist in Europe, able to generate 20-30 megawatts daily.

Vitebsk's bio-gas generated electricity is collected by Vitebskenergo company, for distribution alongside energy produced from other sources. Interestingly, in line with a decision by the Economy Ministry, bio-gas generated electricity is purchased at a 30 percent higher price than usual, to encourage investors to master renewable energy sources. The question arises as to whether this may lead to increased tariffs and Vitebskenergo admits openly that losses are covered by consumers

At present, energy produced from non-traditional methods accounts for a minor share of the total, so customers are unlikely to experience price fluctuations. Moreover, the Government is debating ways of reducing salaries for energy workers.

A programme to set up more bio-gas facilities countrywide will include using not only landfill gas but meat processing waste, animal residues and corn to generate electricity. Our agricultural companies have enough raw materials but lack spare funds to set up equipment, so investors are sought desperately. Mr. Kravchenko notes that energy saving involves more than investment and technologies but a certain sense of personal responsibility, instilled from early childhood. He is keen to see citizens taught to use energy sensibly. The Year of Thrift will certainly be focusing on this aspect of the economy.

As Vireo Energy representatives in Belarus note, their facilities should pay for themselves within 7-10 years. Meanwhile, the company aims to bring ecological benefits rather than commercial profit. It notes that its plants avoid leakage of potentially inflammable and malodorous methane into the air, which would be dangerous to neighbouring towns. By 2014, Vireo Energy plans to launch similar facilities — producing over 2.5 megawatts daily — in Novopolotsk, Grodno and Mogilev.

Stars ever nearer to us

Peleng to take part in production of about 10 satellites within next few years

"We've decided to create four more satellites, similar to the Belarusian satellite, to increase the orbital constellation. This currently comprises the Russian satellite Kanopus-B and the Belarusian satellite. Within the next few years, specialists from our company will be helping create about ten satellites," explained Vladimir Pokryshkin, the Director General of Peleng, speaking at a press conference in Minsk.

The optical resolution of the new equipment will be twice as good as that used on the first Belarusian satellite.

Qatar keen on salt

Following the announcement of Uralkali to stop exports through the Belarusian Potash Company, Belarus has announced its new sales strategy. Belaruskali has announced its signing of a framework agreement on co-operation regarding joint sales of mineral fertilisers with the Qatar Chemical and Petrochemical Marketing and Distribution Company: Muntajat.

The Qatar enterprise is ready to sell up to 3 million tonnes of Belarus-made potash fertilisers annually. Belaruskali has plans to enter new markets in coming months.

Gefest-Technique ovens registered in Latvia

Gefest and Svitanak gain Riga registration

New store of Belarusian goods opens in Latvian capital

The store is part of the Belarusian Trade Centre network, located within Riga market and selling products from such Belarusian firms as Svitanak, Marko, Orsha Linen Mill, Rechitsa Textile, Borisov Crystal Factory (named after F.E. Dzerzhinsky), 8 Marta Knitting Factory, Motovelo, Atlant and Gefest.

The store's launch was attended by the Ambassador Extraordinary and Plenipotentiary of Belarus to Latvia, H. E. Mr. Alexander Gerasimenko, alongside representatives of Riga City Council, Latvian businessmen and members of the Belarusian diaspora. During the opening ceremony, it was noted that new agreements made at the 9th National Exhibition *Belarus EXPO-2012*, held in Riga last December, have contributed to the store's opening.

Latvian buyers appear very interested in Belarusian refrigerators, washing machines, microwave ovens, bicycles, textiles, cosmetics and shoes, among other items. The Belarusian Trade Centre is part of a chain of stores ever expanding, and has operated in Latvia since 2001. New stores opened in the cities of Riga and Jelgava last year and more than 50 agreements were signed with Belarusian enterprises for delivery of products.

Photos from orbit

Sale of photos from Belarusian satellite generates over $2 million

Nine Belarusian ministries are using photos from the Belarusian satellite. "The country has a whole system of rapid reception of cosmic information and its processing," notes Piotr Vityaz, the Chief of Staff at the National Academy of Sciences of Belarus.

A number of agreements have been signed with foreign countries. "We're accumulating photos and are trying to sell this information to foreign partners, with a $2m agreement already signed," notes Mr. Vityaz.

A year ago, on July 22nd, 2012, at 9.41am Minsk time, the Belarusian satellite was launched via the Soyuz (Union) rocket and its assist module Fregat, alongside the Russian satellite Kanopus-B. It is now orbiting the Earth at a height of 500-520km. High-resolution photos are received from the satellite, which uses Belarusian electro and optic apparatus made by Peleng enterprise and the Institute of Cybernetics (weighing 150-200kg). The rest of the equipment is foreign, from Russia and the UK. On August 29th, 2012, the first photos were received from the satellite.

Alarm clock app leads worldwide

Minsk High-Tech Park resident company launches iPhone application topping US and European sales

"The Smart Alarm Clock, designed for the iPhone, has topped sales lists for applications via the Apple online shop. It's now the top seller in Italy, Germany, Spain, Russia and in 70 other countries," admits the Deputy Director of the High-Tech Park Administration, Alexander Martinkevich.

The Smart Alarm Clock application controls phases of sleep, helping you to wake after the appropriate length of time for your body. It also advises on the best time to go to bed.

Over the first six months of 2013, revenue from HTP resident company sales reached Br1.88 trillion: up 52 percent on the same period of last year. Exports of services by software company residents stood at $189.6 million within the first six months. The High-Tech Park is currently home to companies from 54 countries.