

Media Kit

Fromissard Bioenergy division

- **Committed to a sustainable development approach, DRIMM is gradually developing the Fromissard Bioenergy division dedicated to the treatment and recovery of non-hazardous waste (from households and industrial clients).**
- **In April 2009, DRIMM opened a new Biogas recovery facility. This facility will produce the equivalent of around 40,000 residents' electricity consumption.**
- **Additional pre-treatment tools will then support the recovery of material and energy resources contained in waste. Green energy production will be developed.**



Press Contact: Danielle Escano – +33 (0) 5 63 23 13 00 – d.escano@groupe-seche.com

Located at the Montech and Escatalens site in Tarn-et-Garonne since 1987, DRIMM has been a subsidiary of Séché Environnement since 2001.

A specialist in the treatment of non-hazardous waste (from households and industrial clients), DRIMM has developed environmental know-how to guarantee high-quality environmental handling of waste.

DRIMM has undertaken to build a waste recovery and treatment division, with the goal of sustainable development. Administrative authorization obtained in 2005 enabled the implementation of the Fromissard Bioenergy division.

Benefiting from Séché Environnement's know-how and expertise, the implementation of the Fromissard Bioenergy division is part of a landscaping master plan in which biodiversity is a major component.

The permanent search for environmental excellence is systematic by using the best available techniques.

DRIMM has been ISO 14001 certified since 1999 and OHSAS 18001 certified since 2003.

Taking care of a planet with limited resources

The world is a complex ecosystem in which waste must be handled with care in order to protect nature and its biodiversity. The preservation of the planet and mankind's well-being are priorities.

Reaching a balance between such varying constraints requires a new approach to product and waste management by developing an integrated vision that incorporates optimal management of natural resources through a "life cycle" and not an "end of useful life" perspective, based on recognizing the fact that the product is tomorrow's waste and most certainly the resource for the day after tomorrow's product.

Considering waste is only one stage in the cycle, DRIMM must gradually provide waste producers and its clients a comprehensive offering that tackles their "waste" issue in the best and safest way possible.

Development of "green" energy production

Waste treatment is one of the factors contributing to mankind's well-being in his environment. Technical progress has offered increasingly well-adapted waste management solutions and offers new outlooks.

Meanwhile, in the face of climate change, and France's commitments to reducing greenhouse gas emissions, DRIMM is developing techniques enabling it to recover the potential energy contained in waste.

Treating our waste is no longer an end; our responsibility now is to recover waste and take advantage of its energy potential.

The development of the Fromissard Bio-Energy division includes several stages which should enable all the energy potential contained in waste to be exploited.

Waste pre-treatment

Research advances have enabled the establishment of pre-treatment tools in order to develop the different methods used to recover the elements contained in waste.

After shredding materials and mechanical sorting, the various elements are directed toward the recovery facility:

- Product recovery
- Energy Recovery for elements selected based on the fraction containing high energy potential, enabling the production of fuel derived from waste. The recovered fuel powers heat transfer units and the production of ready-to-use steam or electricity.
- Transportation of the final fraction of waste to storage, where its energy potential will be released via the recovery of its biogas.

These tools will be gradually installed on the site during the coming years.

Recovery of biogas from waste

Biogas is the product of degradation of the fermentable components contained in waste. Naturally rich in methane, it is a source of green energy.

To recover the energy, the waste is stored in plots or cells accommodated for this purpose. The provision of different materials to create an impermeable complex enables isolation from the subsoil and air.

The biogas is collected through a large network of pipelines distributed throughout the mass of waste.

With a well-managed network, DRIMM enjoys a continuous energy resource.

Electricity production derived from biogas since 2009

In Q1 2009, DRIMM opened a large recovery complex to produce electricity from biogas recovered on site (biogas derived from the natural degradation of the fermentable component in waste).

This unit includes a combined-cycle Gas Turbine (operational) and a Steam Turbine (to be installed in a future stage) in order to exploit the maximum potential of biogas.

The technical choices were assessed to adapt to energy requirements:

- Use of thermal energy to meet the site's requirements for treating liquid effluents derived from the waste
- Electricity production to enable re-injection into the ERDF grid. The cycle as a whole will produce (when complete) 7 MWh, the equivalent of 70,000 residents' household consumption.

Electricity production from a Gas Turbine

This unit enables the recovery of the energy components contained in biogas (methane) in the form of electricity through a 4MWe (13.7MWth) gas turbine.

After an initial stage of compression to 25 bar and cooling, the biogas is introduced (with combustion air) into the combustion chamber through 6 injectors.

The burning leads to an expansion in the volume of the combustion gas which is then depressurized through blades, leading to a 6,750 kVA alternator which produces a voltage of 6.3 kV.

This voltage is raised to 20kV (through a 7,500 kVA electric transformer) for injection into the ERDF grid.

All of the electricity produced by the unit is re-injected into the ERDF grid at the Finhan power station as part of electricity purchase agreements with biogas treatment facilities.

Additional energy production from a boiler and a Steam Turbine

In order to improve the total energy output of the facility and meet the site's steam requirements, a steam cogeneration facility which includes a boiler and a Steam Turbine will be installed in addition to the current unit.

The boiler will enable the recovery of hot gases escaping from the gas turbine and the production of 8 t/h of steam at 42 bar.

This will then be recovered in the Steam Turbine:

- A portion will be used for additional electricity production of around 1MWe
- The remainder will be used to treat on site liquid effluents (from waste) through evapo-concentration.

The site's current electricity production corresponds to the household consumption of a city the size of Montauban.