



Press release

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Reusing plastic waste in a novel process to generate energy and heat

Major companies in the region are joining forces to produce liquid and gaseous fuels and electricity from plastic waste. Recycling materials – starting with the plastic sheaths protecting power cables – through low-temperature pyrolysis can give materials a second life. The process of recovering and reusing cables reduces the environmental impact and aligns with the principles of the circular economy.

This pilot project – called Valplast Energie – was initiated by Spontis SA, a supply chain specialist that provides materials to distribution system operators (DSOs) which was researching solutions to reuse waste materials. Recycling specialist Thévenaz-Leduc SA, part of the BAREC group, and Romande Energie, a leader in renewable energy and district heating, are also partners in this project.

The project furthermore draws on the expertise of Greenlina SA (technology), Humana Sàrl (waste pyrolysis) and Sales Challenge Consulting Sàrl, all of which will be closely involved in this pilot project. The project is also supported by Innovaud, the Broye regional association (COREB) and Platinn (an innovation network).

Concept to reduce environmental impacts

The pyrolysis recycling chain – in the form of an automatic, containerised and mobile recycling and turnkey fuel-production line – will initially run on plastic waste from electrical cables and other materials commonly used by Romande Energie. Plastics such as PVC, PE and PP can be converted into a recycled fuel through low-temperature pyrolysis. Using a novel approach, the liquid fuel can be utilised as a feedstock for district heating plants and to power Thévenaz-Leduc's vehicle fleet. Additionally, the resulting syngas can be harnessed to cogenerate electricity and heat. At the same time, recycling plastic waste allows for better energy recovery while reducing environmental impacts and carbon emissions. This innovative solution will help advance the green energy transition and create jobs.

“As well as supporting a circular economy, pyrolysis has huge potential because it processes materials *in situ* that can then be directly reused in another form, for example as a feedstock for district heating plants,” explains Christophe Pot, Managing Director of project lead Spontis SA.

“This process creates a *bona fide* ecosystem: we heat the materials through pyrolysis in Moudon and then use the fuel obtained to power our vehicles, while the jobs created by this project will contribute to the economic development of the region,” says Frédéric Leimgruber, Commercial Manager at Thévenaz-Leduc.



The prospect of using this fuel for district heating “is exciting, especially as this type of circular economy is one of our sustainability goals,” says Guillaume Fuchs, Joint Head of Energy Solutions at Romande Energie. “The project will reduce environmental impacts by producing more energy with lower carbon emissions.”

Creating a partnership-based local ecosystem

Each partner will make its own specific contribution, providing knowledge and expertise in the design concept, technology, installation, operation and maintenance of the pyrolysis plant. Activities will also include monitoring the automation chain to see where additional process improvements can be made. The partners will offer their own teams and infrastructure as required.

Roles of the project partners:

Spontis SA: project lead on waste recovery and project monitoring coordinator

Greenlina SA: owner of the technology

Thévenaz-Leduc SA: future plant manager and in charge of the project’s environmental management

Romande Energie SA: installation of power network to enable the plant to operate; responsible for the recovery of output materials, the management of the cogeneration process and the use of the heat

Humana Sàrl: technical consulting on pilot pyrolysis installation and the refining facility

Sales Challenge Consulting Sàrl: supporting, developing and raising funding for Greenlina in relation to the pilot pyrolysis installation and the refining facility

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Spontis in brief

Spontis SA, a subsidiary of Groupe E, Romande Energie and Lausanne Public Utilities, is active in supply chain functions, strategic purchasing and project management.

It offers its customers end-to-end solutions for managing their operational activities, enabling them to make savings and focus on their core business. Spontis SA currently employs 35 people.

For more information, visit www.spontis.ch



The BAREC Group in brief

The BAREC Group has been active in the recycling sector since 1953. A complete solution is the motto of the group, which has become one of the most important providers of comprehensive recycling solutions in Switzerland. The group employs more than 200 people. Its core business consists of three areas:

- Scrap and metals
- Waste paper and plastics
- Destruction of confidential documents and data carriers

In addition, the BAREC Group is a certified partner of SENS and SWICO for the recycling of e-waste (waste electrical and electronic equipment) and is responsible for the proper disposal of mainly light sources and flat screens.

Over the years, a group with eight sites in Switzerland and a state-of-the-art infrastructure has grown from the company's recycling expertise.

Romande Energie at a glance

Romande Energie Group is the leading supplier of electricity in Western Switzerland and a mainstay in the Swiss energy industry. It offers several sustainable solutions for the distribution and generation of electricity in addition to energy services, which include efficiency and electromobility solutions.

All its generation assets are driven by renewable sources of energy. Additionally, it is working hand in hand with customers, investors and employees to provide ever-better standards of living through innovative services and a commitment to sustainability. In addition to security of supply, the Group is dedicated to offering innovative services that meet customers' expectations as it supports them in switching to more sustainable sources of energy in pursuit of a net-zero goal in Western Switzerland.

For more information on Romande Energie Group, visit

www.romande-energie.ch

