Project name: Support for obtaining CO2 certificates for a pyrolysis unit from paper residues: technical analysis, business plan. Subsequent environmental analysis and support for obtaining construction permit	**Approx. value of the contract** 72'000 USD
Country: Switzerland **Location:** Neuchâtel	**Duration of assignment:** 2019 - 2020
Name of Beneficiary/Client: Philip Morris international	**Total No. of staff-months of the assignment:** 70 staff days / 2 staff month
Associated consultants: NA	**Names of Planair staff members involved in the project:** Project Manager : Laure Deschaintre Project Manager : Jean-Loup Robineau Project Director: Lionel Perret

Project Description

The project aimed to generate steam through the pyrolysis of bio-based waste from the industrial site, replacing the existing steam production process that relied on natural gas. At the time, all steam was produced using natural gas boilers.

The reference scenario involved producing steam with new, more efficient gas boilers. While this scenario was the most economically viable and likely, it did not contribute to reducing fossil energy consumption.

As part of its environmental commitment to achieving carbon neutrality at its production centers, Philip Morris Products SA (PMP) had planned to implement a pyrolysis installation for biogenic waste at its Neuchâtel site. The objective of the project was to replace the natural gas used onsite to produce steam and hot water with gas derived from the pyrolysis of biogenic waste.

Services provided

- Cost-benefit analysis using the UNFCCC international tool
- Sensitivity analysis
- Analysis of barriers
- Analysis of current practice
- Support in finding a validation body
- Management of planning and deadlines
- Answering any questions from the Swiss Federal Office for the Environment
- Consideration of all aspects, putting expected emissions into perspective
- Assessment of the environmental and technological value of the project
- Comparison of the pyrolysis solution with recycling methods