

## Background

Biofuels allow small and medium-sized power plants in particular to operate without fossil fuels. In this context, further processing steps are required in the preparation of the fuels, such as biomass gasification by pyrolysis. By means of intelligent and highly automated methods, these types of power plants can be monitored with least possible effort and all process stages can be included.



## The Case

- Various biomass products such as waste from forestry, wood chips from wood processing, or even horse manure can be used for the production of heat and power
- Failure of the fuel processing system will affect the availability power plant
- These additional steps increase the overall complexity of power and heat generation
- If a leaking valve is not detected in time, this can lead to a pipe rupture.
- In the given case steam was released continuously – instead of at planned intervals to flush the system. This would ultimately have led to a pipe break, but luckily was caught in time.

## Highlights

- Power plants using biomass as energy source are often less than ten years old and designed to be operated with minimal – or no – personnel
- In the event of damage, a large number of repetitive, routine steps are required to restart uninterrupted operation
- Comprehensive monitoring is ideal, especially in companies with a low staffing level and a large variety of different process sequences
- The equipment fault was detected at an early stage and the defective valve was replaced during a short maintenance break



Monitoring all components in almost real time provides the greatest possible security. Preventive maintenance measures can be reduced and concentrated on areas with few sensors. Direct costs can be saved through maintenance cycles that are tailored to actual needs and, in addition, problems due to maintenance errors can be avoided. And all this with constant level of availability.

With the solution from **mi Solutions** it is possible to quickly and easily set up AI-supported dashboards to monitor KPIs too.

## Your Contact



**Louis von Beaulieu**

📞 +49 160 90 83 97 56

✉️ [Louis.Beaulieu@mi-solutions.eu](mailto:Louis.Beaulieu@mi-solutions.eu)

## About Us

Data analysis methods have seen a rapid development in recent years, maturing into complex instruments. With our expertise we help you to strengthen your business without losing focus on your core tasks.