

Bioresources – Energy Generation

Maximising energy generation by enhancing management focus and improving ways of working. Our improvement required no new assets or the implementation of expensive tech, delivering an 11 to 1 ROI and an in-year payback.

Insights that Reson8

Increased Generation

Increased annual generation by 9%, avoiding costs of £1.8m

Engine Management

Reduced the lead time to complete engine overhaul by 64%

Efficiency Improvement

Identified opportunities to improve the efficiency of the maintenance team by 17%, equating to a £370k saving

Challenge

Our client failed to meet their energy generation targets despite having sufficient gas volume to meet them. Using our Performance Accelerator™ approach, we identified the causes of energy loss.

The CHP maintenance supplier failed to proactively manage assets to minimise downtime. This resulted in unplanned downtime that directly impacted their ability to meet generation targets. The unplanned downtime also created instability in the system, affecting the treatment process.

Due to maintenance backlogs, operational assets experienced high levels of downtime. As a result, managing the digestion process became more complex, impacting both volume and quality. Their production planning was focused on site generation targets rather than regional targets, thus optimising the parts (site) at the expense of the whole (region) system.

Solution

- ✓ We established a robust production planning process to create a focus on regional performance to enable improved decision-making.
- ✓ Re-structured the operational team to create an increased focus on energy generation.
- ✓ Created a framework of KPIs to support the effective management of the CHP maintenance supplier.
- ✓ Created an improvement programme for the CHP maintenance supplier to focus on the leading causes of unplanned failures.
- ✓ Established a process for applying Lean Management to the planning of engine overhauls.
- ✓ Improved focus on critical asset availability and planned maintenance which increased asset availability by more than 13%.
- ✓ Rationalise the daily management routines to create more time-solving problems, reducing time in daily meetings by 50% for all operational managers.

Results

Within the first few months of the project, our clients have experienced a 9% increase in generation from the previous year. Multiple sites are now achieving their highest level of generation as a result of enhanced asset availability. The project has created a solid foundation to deliver next year's business plan targets.