

POWER INDUSTRY / Citec - Feasibility Study for a diesel power plant using bio oil as fuel



CASE IN BRIEF

Project

Feasibility Study for a diesel power plant using bio oil as fuel

Customer

Global Company in the energy sector

End customer

Global Energy Company

Key result

Solid recommendations on which approach to take

Customer challenge

■ Customer was planning a combined cycle set-up for a diesel power plant and requested help in analysing and evaluating the proposed project.

For this project, the customer saw Citec's expertise and competence as the main reason for ordering the feasibility study from Citec.

Citec solution

■ Citec's solution was to setup a team of experts to complete the feasibility study. The results of the feasibility study were presented in a report, which gave detailed information on the evaluation criteria, the findings in the study and the recommendations for the project.

Project description

■ The study evaluated different combined cycle set-ups for an engine power plant fuelled on bio oil. The focus was on evaluating if a two inlet pressure steam turbine system was feasible compared to a single inlet pressure system.

The report included, e.g., a theoretical performance evaluation, equipment budgetary offer evaluations, comparison of results, conclusions and recommendations. The different plant combined cycles performance was estimated with calculations. Based on theoretical estimations of plant performance a number of different set-ups where studied in more detail. Based on these calculations, inquiries were sent to steam turbine and heat recovery steam generator (HRSG) suppliers to be able to evaluate the performance of the equipment and also present a cost comparison in the feasibility study report. The report also included a feasibility comparison, providing the estimations for payback time and interest rate impact.



