



FEASIBILITY STUDY FOR A 8-13 MW CHP PLANT @ A PAPER MILL

SUMMARY

Mondi is a manufacturer of kraft paper at its Pine Bluff, AR plant. As a large paper mill, it is a major user of energy and as a result, its energy costs are significant. The five primary energy sources used within the Mill are natural gas, biomass (waste wood and bark), recovered process liquors (black liquor), steam, and electricity. Mondi had been exploring the installation of power generation equipment that may provide all or the majority of the electrical requirements of the Mill (those that are currently purchased from Entergy), and also provide steam to the Mill. This steam would replace some of the existing boiler steam production and reduce boiler fuel use.

Mondi contracted with Bryan Power to conduct a detailed feasibility study on CHP and its potential to lower Mondi's energy costs. This study included a complete analysis of hourly, daily and seasonal energy uses (electricity, steam, etc.), an analysis of existing costs, evaluation of different CHP plant alternative configurations, their costs and their performance, and a detailed analysis of the financial performance of each alternative.

Based on the results obtained and the evaluations conducted, the Bryan Power team concluded that the development and installation of a CHP plant to include a combustion turbine generator and HRSG was a viable economic, technical and environmental solution. The Bryan Power team further concluded that a CHP project based on a single used or pre-owned unit would be the most economically viable. A pre-owned unit can offer reliable and proven combustion turbine design at a cost considerably lower than a comparable new machine.

Client

- Mondi



Location

- Pine Bluff, Arkansas

Date

- 2015

Equipment

- TBD

Service

- Technical & Economic Feasibility Study for a CHP Plant