

Continental Tyre SA installs new coal boiler house

Continental Tyre South Africa (CTSA) has installed a new coal boiler house as part of the company's ongoing drive to reduce energy costs. The project was completed and commissioned towards the end of 2014 at a cost of R65m.



The building of the boiler house, which included orders for civil works and equipment, commenced in 2013 and the facility was equipped with four 10.5 ton John Thompson package boilers and was ready to commence with the full production of steam by November 2014. Since then, the boilers have been optimised to run at full efficiency and are now able to supply far more stable steam pressure to the plant, at a significantly reduced cost.

"CTSA not only looks at cost reduction, but also at energy and efficiency. The new boiler house investment has brought a 60% cost reduction in steam generation," said Wayne Brown, general manager of manufacturing at CTSA. The new boiler complies with all environmental standards and as an added benefit the ash by-product from the coal is transported to a local brick maker to form part of the recipe to manufacture clay bricks.

Jobs created

"Over the past five years CTSA has reduced its energy consumption by 25%. With this project we have also been able to create eight new jobs as four boiler operators and four boiler assistants have been employed," said Brown.

Since 2003, CTSA had been contractually tied to an outsourced steam supplier that supplied the full complement of steam to the plant through two heavy furnace oil (HFO) boilers and one electro boiler. While the electro boiler was the primary source of steam generation, the HFO boilers were used as a backup supply during peak electricity demand.

While the company continued to use the steam generated by the outsourced steam supplier, over a period of time, the cost of electricity increased significantly and it became uneconomical to generate steam through these methods. By 2013, the outsourced steam supplier was simply not able to supply steam at a cost effective rate.

Cost effectiveness

Since 2012, however, CTSA had already initiated an investigation into a more cost effective means of generating steam and considered a number of fuel sources including natural gas, coal and biomass.

While the first choice for boiler fuel was natural gas, the infrastructure in Port Elizabeth does not allow for a natural gas line to the plant, where natural gas could be used as a fuel source for the boilers.

Therefore, the decision was taken to use coal, as it proved to be the most cost effective fuel source for the generation of steam. The decision to construct a boiler house on site at Continental Tyre was taken as a result of these findings.

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