

B&W's Open-Bottom Bubbling Fluidized-Bed Technology Designed for Biomass Firing

PROJECT CASE HISTORY

Project positions plant to generate electricity, reap renewable benefits

*Snowflake White Mountain Power
Snowflake, Arizona*

Background/Scope

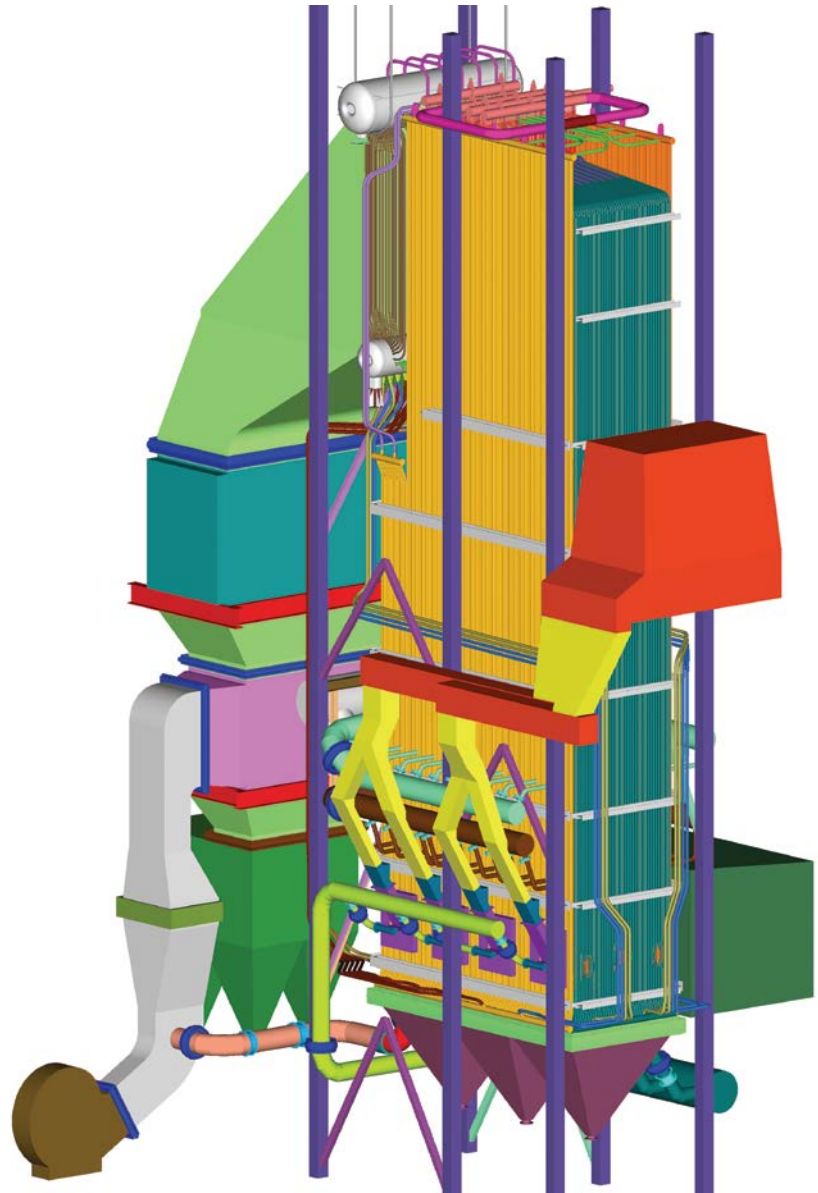
Snowflake White Mountain Power's goals serve to define project scope:

- The retired unit, originally supplied by The Babcock & Wilcox Company (B&W), was converted to an open-bottom bubbling fluidized-bed (BFB) combustor and relocated to Snowflake, Arizona.
- Boiler drums and supporting ancillary equipment from a decommissioned boiler in Sheldon, Texas, were reused.
- The new unit was configured to utilize wood and paper mill sludge to generate electricity.
- For fuel flexibility, the bubbling bed was designed for deep staged combustion, resulting in a close-coupled gasification process.

Solution: Purchasing a New BFB while Reusing Existing Equipment Enabled Customer to Meet Schedule and Reduce Project Costs

B&W has extensive experience with boiler conversions and modifications, including almost total replacement of older and inactive boilers.

B&W's renewable solution: an open-bottom, BFB combustor unit – to increase steam flow, meet low emissions requirements, enhance fuel flexibility and deliver reliable capacity.



This BFB boiler reused an existing boiler drum, environmental and supporting auxiliary equipment from a retired unit enabling B&W to meet the customer's schedule and reduce project costs.

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Benefits

Increased steam capacity on renewable fuels positions customer as a viable, independent electricity producer in today's renewable marketplace.

Burning paper mill sludge as a fuel source reduces associated landfill needs and costs.

Positive Outlook

B&W's expert design and technical prowess with products for the renewable energy market are assets for its customers – like Snowflake White Mountain Power – assuring their project's certainty of outcome.

This renewable project, slated for operation in the 4th Quarter 2007, resulted in converting a once abandoned boiler into a valuable asset at a lower capital cost. It is anticipated that the plant will serve as a benchmark project, which could be replicated in other areas of the country.

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