CAPACITY AND QUALITY BOOSTED AT MAJOR VIETNAMESE BIOFUEL PELLET PLANT





The new 32-tons-per-hour line at the Quang Binh facility will address an upturn in demand for wood pellets

New line introduces new technologies to cater for growing demand for home market and export

THE CHALLENGE

- Higher quality and output demands, as export markets grow
- Highly variable raw materials demand stringent process control

THE SOLUTION

- Four HM43606 grinders
- Eight PM30-6 pellet mills
- · Design, integration, startup and handover service
- · Automation and digitalisation solutions

THE RESULT

- 98% uptime maximises TCO & OEE
- 32 tons per hour capacity
- First 30,000-ton order successfully exported

INTRODUCTION

Located in Quang Binh Province in Vietnam, BVN is committed to fighting climate change through the production of sustainable wood products, wood pellets to replace coal in power generation and heating, and by encouraging the planting of forest by suppliers, based on the increase in value of the wood they supply.

By committing from source to market, the company establishes long-term partnerships with forest landowners, forestry agencies and traders, creating reliable, sustainable and legal raw material sources from which more environmentally friendly energy can be produced.





CHALLENGES

Like many industries, quality is an essential metric in wood pellet production, especially for end users who want uniform performance from their fuel sources.

Natural sources of raw material, such as forestry wood, are notoriously variable, so advanced solutions and tight control must be deployed at all processing stages to ensure the uniformity of the resulting wood pellets.

According to Mr. Vu Quang Sang, Plant Director at BVN's Quang Binh facility: "To conquer demanding markets such as Japan and Europe, the pellets we produce must exhibit high quality and consistency, which is why we must ensure that the equipment we deploy operates within very strict output tolerances while also being agile enough to cater for source variabilities."

SOLUTIONS

BVN is addressing an upturn in demand through the deployment of a new 32-tons-per-hour line at its Quang Binh facility. This is BVN's third line, complementing an existing installation at Quang Binh and two other lines at plants at Thanh Chuong and Hoa Binh, both of which also use equipment from ANDRITZ.

The new line comprises primary plant equipment from ANDRITZ, including four HM43606 grinders (two wet grinders and two dry grinders) and eight PM30-6 pellet mills, which are exclusively designed for biomass processes.

These latest-generation pellet mills use optimized die speeds and a patented feed system to deliver high-quality products and increased capacity, but with reduced maintenance demands. Equipped with a highly energy efficient, double-reduction gearbox, the optimized die speeds can be achieved even at high working loads.

"OUTPUT CAPACITY HAS RISEN BY AROUND 10%, THANKS TO THE NEW PELLET MILL"

Mr. Vu Quang Sang

Mr. Vu Quang Sang explains: "The PM30-6 is an upgrade on the older models we use at our other facilities. Not only do they give us good performance, but less dust is apparent in the finished pellets, which is always a good sign of a quality-driven process.





The new inlet feeder also distributes the sawdust more evenly into die and roller shells, which not only improves quality, but also helps increase the lifetime of die and rollers."

RESULTS AND OUTCOMES

"Thanks to our deployment of plant solutions from ANDRITZ, we have been able to tightly control all the process parameters and end-product variables and have successfully exported around 30,000 tons

of wood pellets to a major customer as the first order from our new Quang Binh plant," Mr. Vu Quang Sang adds. "We trust Andritz for its equipment performance and qualified service.

"Compared to other lines, output capacity has risen by around 10%, thanks to the new pellet mill, and we are achieving total uptime of around 98%. Pellet quality has also improved, while the new digital control and automation solution make the whole plant easier to operate.

"The team at ANDRITZ in Vietnam has supported us commendably – from the very first project – always applying their significant knowledge, professionalism and technical skills. And we hope to continue this cooperation with ANDRITZ for future projects, with three new factories on the roadmap, all with larger capacities than our current installed base."



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