

Golden Bay High School & Pool 350kW, Takaka

Golden Bay High School serves the town of Takaka and its rural surroundings, providing a quality education to 330 pupils. The school is also home to the community swimming pool, which is heated by the school boiler during the shoulder months of the year - providing a valuable recreation resource for locals and visitors alike.



When Golden Bay High School went to tender for a diesel-fired replacement for their end-of-life coal boiler, we took the time to educate them as to the suitability of a modern, highly efficient wood-fired boiler to their needs. Living Energy brought the high school to the EECA *Renewable Heating in Schools Programme*, and secured their agreement to include the school in the funding programme if they decided to opt for a woody solution to their heating needs. Thankfully, Takaka is a forward thinking town which is happy to embrace unfamiliar technologies, and the tender was re-issued for a wood fired boiler. As part of the tender process, Living Energy undertook a detailed survey of the existing structures and the actual heat demand at the school. Where a 700kW diesel boiler had been stipulated initially, we were happy to go with a wood-fired boiler of 350kW - just half the output, which is now doing the job nicely.

The project involved complete rebuild of the boiler house and fuel store, which was all but demolished and then extended to accommodate a 15,000 litre accumulator tank. The highly-automated Binder boiler has a diesel-fired auto-ignition system which is capable of igniting fuels of up to 55% moisture content in the step-grate combustion chamber. Automatic fuel feed, boiler tube cleaning and ash removal complete the installation, and contribute to a state-of-the-art wood-fired boiler system which is providing clean, low carbon and low cost heating to the high school and pool.



Installation Summary	
Client	Golden Bay High School
Location	Takaka, Tasman District
Boiler Type	Binder RRR/RRF 400-600
Rated Output	350kW
Wood Fuel Type	Wood fuels $\leq 55\%$ MC
Date of Commissioning	April 2009



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