Local Biofuel Innovation Offers Boiler Users a Cleaner Alternative - Without the Cost or Complexity

NZ Biofuels Ltd (www.nzbiofuels.co.nz), a Christchurch-based clean energy company, has launched a waste-derived boiler fuel for local industry that offers diesel users a seamless transition to lower emissions.

The company produces a FOG-based biofuel—derived from fats, oils and grease—that has been tailored for boilers and process heat applications. This initiative is now moving from pilot stage to commercial rollout in the Canterbury region, with a focus on medium to larger-sized boiler users. NZ Biofuels is the only producer to achieve Fuel Grade Biodiesel production in NZ over the last two years, they have the pedigree/perseverance to get the FOG based product right for the boiler market.

"We are starting clients on a B20 blend (20% B100/80 % Diesel), with flexibility to increase this to 50% over time," says a spokesperson from NZ Biofuels. "The goal is to provide an immediate and measurable carbon reduction without requiring changes to existing boiler systems.

The fuel has been successfully used at Daiken New Zealand's Customwood MDF plant outside Rangiora for the past 6 months. They are currently operating a B50 blend in their pre-fire boiler.

"There's been no noticeable difference from running 100% diesel," says Jeremy Axelrad, Lead Projects Engineer at Daiken-NZ. "The transition has been smooth and the team at NZ Biofuels worked directly with our boiler operation."

Independent international lifecycle assessments show that waste-derived biodiesel (like that made from used cooking oils or FOG) produces around 85% fewer greenhouse gas emissions (CO2) across its lifecycle compared to fossil diesel at 2.68 kg CO2/L.

Pipe emissions testing CO – has been undertaken - independent testing of the product for Carbon Monoxide emissions, at a set 75 Degrees, mineral diesel emitted 48 ppm while B20 ran at 39 ppm – so a good reduction if running into emission issues.

Independent testing of the Calorific Value by Verum Group, has our B20 Blend testing at 45.31 MJ/kg, vs standard mineral Diesel sitting at 45.5 MJ/kg.

"This is about doing the right thing for the environment without compromising performance or cost,"

If you are using a boiler with Diesel at present in the Canterbury region, get in touch for a talk. We can deliver a blended product throughout Canterbury, we will at a minimum match whatever you pay for Diesel currently – you will not be at a cost disadvantage.

As an example, we are just starting to supply a Bitumen plant (boiler) and an Asphalt plant (direct heat).

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