

Operations Support Team



With hands-on Operations and Site Support, Windsor Energy helps optimise plant performance by reducing fuel consumption, increasing output, improving reliability, and extending the operational life of critical assets.

Background

Windsor Energy brings 50 years of experience in designing, building, tuning, commissioning and troubleshooting thermal energy systems, including steam hot water boilers. Our Operations Team works closely with clients to support safe, reliable and efficient plant operation.

Through deep technical expertise, hands on site support and an integrated suite of engineering services, we help optimise performance, reduce risk and ensure systems operate at their best over the long term.

Expert Knowledge

- Fuel conversion analysis and design
- Boiler Code of Practice compliance
- Hazardous Area compliance
- All solid fuel combustion technologies including fluidised bed
- Materials handling (fuel and ash)
- Water treatment issues including stringent requirements for electrode boilers
- Boiler control issues

Site Support Services

Windsor Energy's operations team is available to maximise your heat plant. Our core focus is combustion tuning to improve efficiency, reliability and life of your equipment. We are your specialists for:

- Combustion tuning of solid fuel boilers to reduce fuel consumption while preserving long life
- Fuel trials
- Diagnosing and resolving combustion issues
- General operational troubleshooting
- Annual checks
- Commissioning after major repairs and upgrades
- Operator training

For quarterly checks, gas fired boiler tuning, sootblower servicing and general maintenance, our Energy Service Team are your first port of call. Contact energy.service@windsor.co.nz

Operations Support Team



Case Study

Balclutha – Biomass Boiler

Windsor delivered rapid, high value engineering support to restore stable operation of Danone's BB1 biomass boiler following a failed restart.

Through expert combustion tuning and targeted control enhancements, Windsor reduced heat losses, improved efficiency, and stabilised steam production using the existing fuel supply. Key automation and start up constraints were identified and addressed, strengthening operational reliability and reducing the risk of future unplanned outages.

The outcome was a more robust, efficient boiler system to support Danone's production needs.

Suite of Engineering Services

Windsor Energy provides direct access to experienced heat plant designers, offering comprehensive process design capabilities to support informed decision making and efficient plant development, including:

- Front End Engineering Design (FEED studies)
- Biomass conversion desktop assessments
- Heat and mass balances
- Process flow diagrams
- Plant efficiency evaluations
- Process and instrumentation drawings (P&IDs)

Case Study

Bell Block – Hot Water Boilers

Windsor provided critical assurance to Taranaki Pine by resolving a high risk safety and compliance issue within the hot water boiler system.

By identifying the root cause of steam formation and implementing clear, code compliant recommendations, Windsor eliminated the risk of steaming and restored full regulatory compliance.

Complementary combustion tuning reduced CO emissions and improved boiler performance, delivering safer operation, improved environmental outcomes, and enhanced system reliability. This work ensured the site could continue operating with confidence, knowing its boiler plant is safe, compliant, and optimised.

Professional Bodies

Windsor Energy maintains an active membership of Engineering New Zealand (ENZ) and have several Chartered Members (CMEngNZ) including IntPE(NZ), RPEQ and Worksafe Approved Gas Practitioners.

