

# Jasper Coffee

Real-time energy monitoring helps identify ways to improve the bottom line

## ACHIEVING INDUSTRY BEST PRACTICE

Jasper Coffee is a 100% carbon neutral business, committed to sustainable practices. Their roastery is located in Abbotsford, Victoria with certified organic beans and grinds sold both online and through retail outlets. The company has achieved carbon neutral status through a combination of both resource/energy efficiency and by offsetting emissions generated through company operations from electricity, gas and petrol through to travel and hardware.

In 2006, Jasper Coffee completed an audit program through Sustainability Victoria, Victoria's peak government body on environmental sustainability. These audits helped Jasper Coffee streamline packaging and reduce the volume of waste and water used in roasting and prompted them to investigate exactly how much energy is involved in roasting 1 kg of coffee. The audit extended to their retail operations, down to detail such as the type of detergent used in dishwashing. Electricity usage, however had not been thoroughly investigated.

## THE NEED FOR ENERGY MONITORING

The team at Jasper Coffee wanted to better understand how to most cost effectively roast their coffee beans. There are two commercial roasting machines at Jasper Coffee, a new model and an older model close to 15 years old. Both of these machines are energy intensive and each processes a different volume of beans each day. Rising electricity prices together with the arrival of the additional machine, meant that their electricity bill had increased significantly. Jasper Coffee understands that the primary step in reducing energy costs is to first reduce wastage. However, a baseline measure is needed for confirming and reporting on the data before an efficiency program can be targeted.

Jasper Coffee approached Simble to demonstrate how their SimbleSense solution could address these issues. Wells Trenfield, Managing Director of Jasper Coffee said: "We were keen to understand our energy consumption and look at ways to measure and reduce it where possible, and then apply that reduction to abatements of our Carbon Footprint".

## WHY JASPER COFFEE SELECTED SIMBLESENSE

Simble's proposal to Jasper Coffee involved delivering and installing WattWatcher Auditor 3 three-phase energy meters at their Abbotsford roastery and providing 24/7 access to the SimbleSense energy management platform.

As SimbleSense displays the energy that each roaster consumes down to 5 second increments, Jasper Coffee is now able to understand in detail the amount of electricity used by each roaster and what that represents as a proportion of total energy used. This also provides a robust baseline for measuring improvements.



**SimbleEnergy**



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**Jasper Coffee**  
ADDICTIVE EXCELLENCE®

WELLS TRENFIELD  
Managing Director  
Jasper Coffee



Increased visibility of electricity usage (operational cycles, shut-down anomalies, abnormal use etc) enables the most cost effective targeting of efficiency programs.

## IDENTIFYING OPERATIONAL EFFICIENCIES

By using the real-time dashboard in SimbleSense, Jasper Coffee identified that each machine has a specific electrical energy 'signature', which has helped them gain an understanding of how much load each machine is under during the roasting process. It has also allowed them to identify improvements in how they schedule roasting cycles. By monitoring the consumption pattern, Jasper Coffee theorized that they might be able to better organise the roasting cycle through the day and potentially increase production output. They also noticed that certain high load equipment was being left on overnight and on weekends when the roastery was closed. By identifying this wastage of energy, Jasper Coffee was able to introduce policies to switch off equipment at certain times, thus providing further cost and carbon savings to their operations. Switching off this equipment will also extend its working life. The amount of energy consumed by office administration is also being measured and is the next target for energy efficiency measures.

## INNOVATIVE BUSINESS PRACTICES AFFECT THE BOTTOM LINE

Jasper Coffee continues to adopt innovative business practices that are not only sustainable but also affect the bottom line. As improvements in efficiency are made, the cost of being carbon neutral is reduced, with fewer carbon credits now required. They are also looking forward to being able to independently audit their electricity bills. Wells Trenfield is delighted with the outcome, "This is a key part of rolling out a program of strategic energy efficiency upgrades across our facilities and by using SimbleSense, we will be able to measure and verify the savings achieved both in raw cost of energy and cost of carbon offsets."

## SIMBLESENSE DELIVERS LONG TERM BENEFITS

Jasper Coffee now know exactly how much electricity is used per kg of beans, even though each roaster processes a different volume of beans each day. The SimbleSense solution has also provided Jasper Coffee with the ability to:

- Obtain detailed data to make informed ROI decisions
- Analyse equipment consumption at circuit level granularity
- Utilise a new window into their roasting operations
- Identify and prioritise energy efficiency measures
- Track and report on the effectiveness of new policies to reduce wastage
- Independently audit their consumption as listed on their electricity bill



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