



Emma McDougall is the Communications and Administration Co-ordinator of the NZSCA.

Carbon cutting

NZSCA's Emma McDougall explains how the association is helping New Zealand coffee roasters reduce carbon emissions and its ongoing commitment on a sustainable future.

Back in 2022, the New Zealand Specialty Coffee Association (NZSCA) and the Energy Efficiency and Conservation Authority (EECA) collaborated to accelerate the decarbonisation of coffee roasting, a commitment stemming from the government's adherence to the 2015 Paris Agreement. This partnership aims to guide coffee businesses in minimising energy-related emissions, facilitating a transition to sustainable practices, and sharing global and local innovations in the coffee sector.

New Zealand coffee roasters can now access tools that have been endorsed by the NZSCA to reduce carbon emissions. A passionate nationwide working group has developed a checklist that serves as a starting point for assessing emissions.

Aoraki Coffee Roaster Director Ken Shi successfully implemented the checklist and achieved 25 per cent energy savings by optimising roasting profiles, minimising downtime, and planning an efficient energy-saving schedule based on the moisture content of green beans.

"The changes that we have seen have immediately impacted on our bottom line. Our team is engaged in this kaupapa. As a result, we have been able to roast more coffee for less in the past, even though the gas bill has gone up," Ken says.

Adam Kyne-Lilley, Head Roaster at L'Affaire in Wellington, is incorporating changes like LED lighting to reduce electricity consumption. L'Affaire is also expanding its sustainability efforts beyond the factory to address shipping emissions.

"Switching to LED lighting from fluorescent has saved two months equivalent electricity per annum" says Adam.

NZSCA has reached the fourth step of its project and has hired a consultant with support from EECA to conduct a worldwide search for innovative solutions that can help reduce energy emissions, both locally



Aoraki Coffee Roaster Director Ken Shi achieved 25 per cent energy savings thanks to NZSCA.

and globally. The draft report, which is expected to be completed by February 2024, will focus on exploring new technologies and upgrades that can help reduce energy consumption.

We will be sharing information from coffee roaster manufacturers who are working on improving odour and particulate elimination systems. We've also reached out to various independent providers of such systems, including catalytic afterburners, water wet scrubbing, and electrostatic precipitators, to gather feedback.

Information has generously been provided on energy and natural gas consumption data, enabling us to start establishing a baseline for energy usage during coffee roasting and odour elimination. Observations thus far include the prevalence of small to mid-range batch sizes among New Zealand coffee roasters, with the largest roasters being 120-kilogram and 240-kilogram units.

With the comprehensive report in progress, expect to see a focus on reducing energy-related emissions and technological

innovations in coffee roasting. The NZSCA will be identifying carbon reduction technologies, assessing their readiness and cost-effectiveness, referencing global experts, and presenting successful case studies.

The study will be presented at the NZSCA AGM at Toitot Hawke's Bay Art's and Event's Centre, Hastings on 24 May 2024, marking a significant step toward a greener future for New Zealand's coffee roasting sector.

The Hawke's Bay area was decimated by Cyclone Gabrielle in February 2023. The NZSCA hopes that by holding the AGM there, we will boost the area's hospitality industry, thereby backing the ethos of the Paris Agreement including supporting areas affected by climate change. **■**

If you have any relevant information, get in touch with the NZSCA at info@nzscA.org



For more information on the New Zealand Specialty Coffee Association, or to join, visit www.nzscA.org