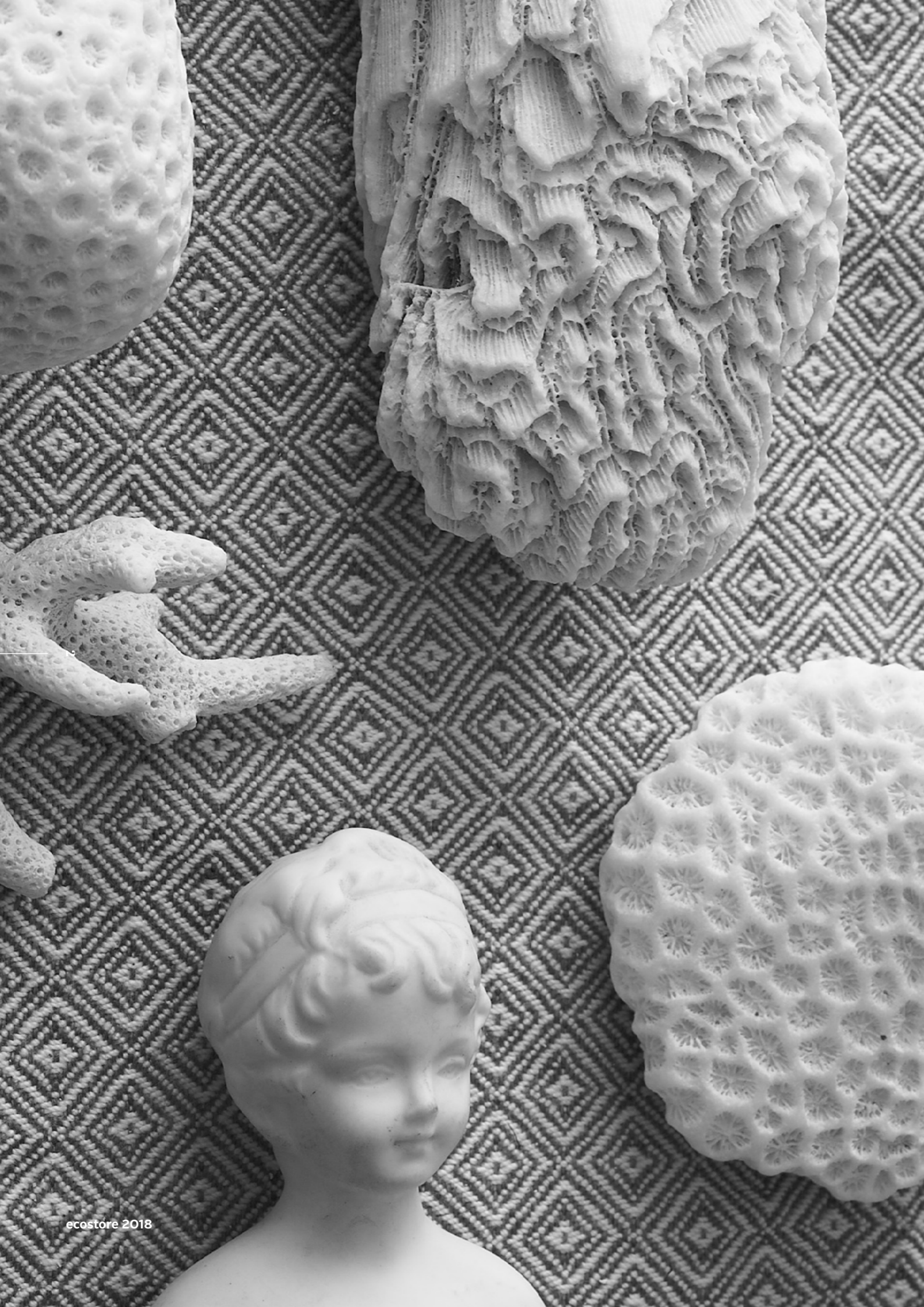




How ecostore is tackling the plastic problem



What we've been doing about climate change

Climate change and plastic pollution are two of the biggest challenges we face in the 21st century. The good news is that lately more people are talking about these issues. But it's important that the talk is followed up with meaningful action.

At ecostore, we've been committed to making household cleaning and personal care products that are safer for you, your family and our planet since we launched in 1993. This philosophy goes hand in hand with ensuring we create packaging that is as sustainable as possible. As a manufacturer of home cleaning and personal care products, it's a responsibility we take very seriously.

Conventional plastic contributes to climate change

Most plastic is made from non-renewable petrochemicals. The extraction process and conversion into plastic releases carbon into the atmosphere, adding to climate change. So in 2014 we challenged ourselves to find a packaging alternative that goes beyond reducing emissions, and actually takes carbon out of the atmosphere.

We found a packaging solution that can help to combat climate change. It's plastic made from sugarcane.



By signing the Climate Leaders Coalition CEO's Climate Change Statement, ecostore has committed to: measuring and reporting our greenhouse gas emissions; setting a public emissions target; and working with suppliers to reduce greenhouse gas emissions. Measuring and reporting our greenhouse gas emissions and carbon footprint are a big part of our organisational sustainability reporting.

Despite making products for 25 years, until 2014 we couldn't access any viable alternatives to plastic made from petrochemicals.

We chose sugar plastic for a number of reasons. As sugarcane grows, it takes carbon out of the atmosphere through photosynthesis. Sugarcane husks even generate bio-electricity in the factory that makes the sugar plastic, making the production process even more sustainable.

Sugarcane is also a fully renewable resource that's helping Brazilian farmers restore degraded and marginal land to provide a productive sustainable living. It is mostly rain fed and requires minimal irrigation. It is grown using organic fertilisers, including a by-product of the sugar harvest itself.



Sugar plastics



Carbon reducing



100% recyclable

Since moving to sugar plastic in 2014, we've saved 4,485 tonnes (and counting) of carbon from being released into the air.

Our sugar plastic bottles are also 100% recyclable, so they can be remade into new bottles. But we know that plastic that's not recycled properly ends up in landfill or polluting our oceans and waterways. So we are also working to make refilling easy and convenient – with more than 60 refilling locations around New Zealand (with more planned).



Other potential solutions (and why we didn't choose them)

From around 2010, another bioplastic – PLA derived from corn – became available in New Zealand. Although this looked like a step in the right direction, there were a number of reasons why we didn't adopt PLA for our packaging:

- It wasn't possible to make a PLA bottle with a handle because of moulding constraints – meaning it would not be viable for every product in our range
- The 'feedstock' for the raw material is typically genetically modified corn
- PLA is compostable, but only through large, commercial composting facilities
- Because it looks the same as PET and has a triangle symbol, people place it in their kerbside recycling, which contaminates the recycling stream

The challenges of converting to sugar plastic

Until 2014, we were constrained by our existing plastic suppliers and what they could access, so we had few options apart from plastic made from petrochemicals. The decision to investigate bioplastic made from sugarcane was a conscious effort to circumvent these limitations.

After learning about sugar plastic technology in 2014, we spoke directly with Braskem, the Brazilian supplier. They were incredibly responsive, and within a matter of weeks we had connected with a distributor in Melbourne, sourced sugar plastic stock and begun to make bottles out of this new material.

At our factory, everything ran smoothly. We ran accelerated testing on the first bottles we made with the new sugar plastic, and it performed as well as petrochemical plastic of the same grade. There was no need to change our manufacturing processes to work with the new material.

“We suddenly had a source of plastic made from sustainable sugar cane in which to produce our bottles.”

Huia Iti, ecostore Research & Development Manager

The biggest obstacle was the cost of the raw materials. Raising sugarcane requires labour and land, as well as a more complex extraction and conversion process. It can't compete with the oil industry's vast economies of scale.

So despite the significant cost, we made the decision to switch all of our plastic packaging to sugar plastic. Because we knew it would enable us to tackle climate change in a very real way, through our business operations.



Lesson learned

Seek out suppliers who are open to sustainability initiatives and want to challenge the status quo.

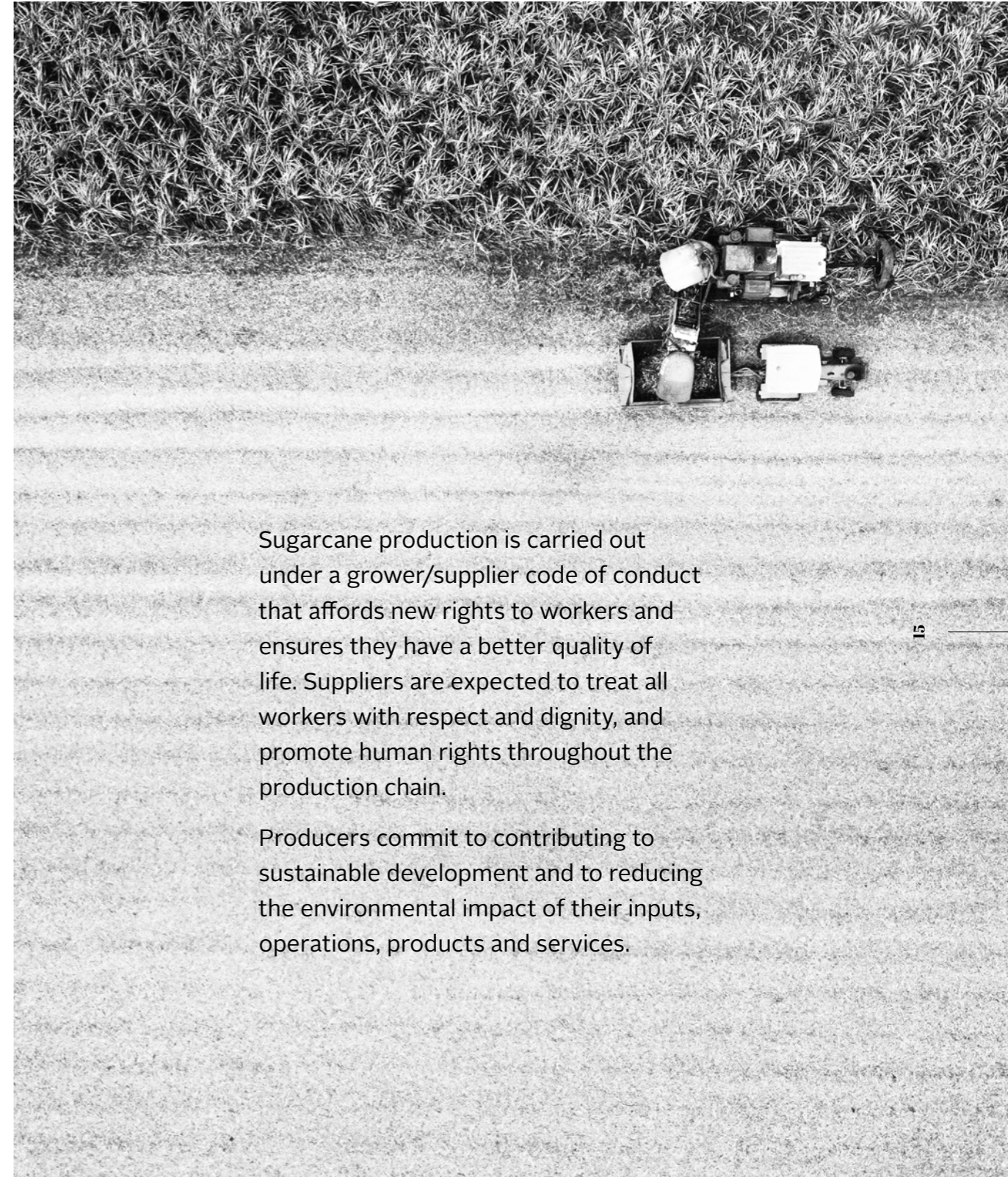
At ecostore, we choose to partner with likeminded companies who want to evolve to take on the challenges our world faces in the 21st century.

Plastic from sugar: a better solution for us, that helps the people who grow it

As well as reducing our (and our customers') carbon footprints, we needed to know that sugar plastic also lived up to the highest possible standards of social and environmental responsibility at its source.

Ninety percent of sugarcane cultivation and harvesting in Brazil is concentrated more than 2000km from the Amazon Rainforest Region, and a government regulatory framework bans planting in areas with high levels of biodiversity. Each hectare of land produces five harvests and is then left fallow for a year to recover.

Commonly planted on degraded pasture land, sugarcane helps recover the soil – and bagasse, a waste product from the crushing process – is often used to power the ethanol production process.



Sugarcane production is carried out under a grower/supplier code of conduct that affords new rights to workers and ensures they have a better quality of life. Suppliers are expected to treat all workers with respect and dignity, and promote human rights throughout the production chain.

Producers commit to contributing to sustainable development and to reducing the environmental impact of their inputs, operations, products and services.

What the future holds

The next step for ecostore packaging is to reduce amount of sugar plastic we use. We'll continue to refine and optimise our bottles to make them lighter without losing strength.

We focus on ensuring our product formulations are not only safe, but also effective. Our formulations use only what's needed to provide the experience and efficacy expected thus minimising the flow of ingredients into the environment.

Our vision is for zero waste and we'll continue to innovate to make our packaging more sustainable,

including innovations that are low or no packaging. In the future we see waste converted into new materials, to be completely circular. This is a future in which there's no such thing as waste – and every material is simply 'food' for another industry or purpose. Beyond that we need to be restorative, to go beyond simply reducing our environmental impact to actually improving the health of our ecosystems.



Stay in touch with what people want and what the world needs.

We encourage other manufacturers to look at what they're trying to achieve, set the bar high in terms of their principles and live them. It's vital to keep evolving, to remain relevant and to take advantage of new materials and technologies.

“Through this process, we learned to have faith in science. One day you’re producing packaging from petrochemicals and the next you’re making it out of sugar. That gives us hope. So many of the world’s challenges can be overcome when we take a science-based approach to problem-solving.”

Huia Iti, ecostore Research & Development Manager

Why we're part of the Climate Leaders Coalition

Climate change is a very complex issue. Individuals, businesses and governments all need to act, and work together to help address the very real challenges we face. Since ecostore began in 1993, we've been on a mission to help care for the world through responsible products and business practices. We'll therefore do all we can to help reduce emissions by joining forces with other likeminded New Zealand businesses – to help create change at scale.

We support the Paris Agreement and New Zealand's commitment to it, and believe the transition to a low emissions economy is a powerful opportunity to improve our country's prosperity. We support the introduction of a climate commission and having carbon budgets enshrined in law.

As a signatory to the Climate Leaders Coalition, we've committed to:

- Measuring our greenhouse gas emissions and publicly reporting on them
- Setting a public emissions reduction target consistent with keeping within 2° of global warming
- Working with our suppliers to help them reduce their greenhouse gas emissions

carboNZero certified

Eco Tech Solutions – our Auckland-based factory where we make and package our products, is the only manufacturer in Australasia with ISO9001, ISO14001, Enviromark Diamond and CarboNZero certifications. The factory has been reporting and offsetting its greenhouse gas emissions since 2011, in accordance with the requirements of ISO14064-1:2006.

Our GHG emissions management plan target is a year on year reduction to the Emission Intensity KPI (emissions per \$ revenue) from 2016-2020.

Projects to manage and reduce emissions include:

- Reducing diesel consumption through fuel monitoring
- Reducing electricity consumption by actively monitoring air compressor lines, switching off unnecessary equipment and a continuation of our LED lighting installation programmes.
- Reducing mixed waste through waste recycling.
- Replacing our forklifts to an all electric fleet.

We have been in the programme for almost nine years now, and remain committed to finding year on year reductions.

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