



Story by Keith Newman

# Carbon Balancing Act

New Zealand is planting a billion trees, declaring climate change emergencies, planning for zero carbon status and overhauling our Emissions Trading Scheme (ETS) as we look to sharpen our shareholding in the evolving global greenhouse gas stock market.

We're only a few steps away from committing to carbon neutrality by 2050. Elements of the journey are already taking shape as businesses and local and central governments rethink their sustainability, commit to the circular economy, and review their practices and supply chain arrangements.



Key to managing and monitoring our progress will be the ETS mechanism currently under review, which will allocate and pool our local carbon credits and offset the emissions balance by funding equivalent carbon savings elsewhere in the world.

The amount of carbon created by audited activities and their global warming potential will be converted to a carbon dioxide equivalent (CO<sub>2</sub>e), to determine the trading value on the international market.

Voluntary programmes like the Certified Emissions Measurement and Reduction Scheme (CEMARS) and carboNZero, run by government-owned Enviro-Mark Solutions, are doubling year on year as more participants commit to reducing their carbon footprint.

Josephine Rudkin-Binks, Enviro-Mark Solution's commercial sector general manager, says since the change in government and ratification of the Paris Agreement "there's definitely been a big upturn with people realising this is no longer a fringe issue but something businesses need to do."

#### Local leadership lagging

Hawke's Bay has only eight CEMARS and carboNZero certified businesses, but while it's lagging behind Otago or Bay of Plenty, she insists there's still time to take leadership.

Local success stories include Hawke's Bay District Health Board (HBDHB), Mr Apple, Summerset Group, The Clean Crew, the Youth Hostels Association, Pyroclassic Fires, HB Technologies, and 3R Group.

Hastings-based 3R Group was self-auditing for many years until it became CEMARS certified in 2013, with a plan to reduce carbon emissions by 20% before 2020.

In 2016 it became carboNZero certified, meaning it can offset remaining carbon by purchasing credits from New Zealand's Permanent Forest Sink Initiative (PFSI).

3R Group, employing 26 people from Christchurch to Auckland, is an advocate for the circular economy, runs a number of product stewardship programmes and helps other businesses dispose of used products and packaging.

**"We needed to practise what we were preaching."**

3R GROUP CEO ADELE ROSE

It jumped in at the deep end, gaining ISO1401 Environmental Planning Process certification to better understand the impacts of its own business and how to plan for carbon mitigation.

The company looked at the positive and negative environmental impacts of how its suppliers acted and how it acted as a supplier. "We needed to practise what we were preaching," says CEO Adele Rose.

That meant looking at procurement, the efficiency of vehicles, logistics, fuel reduction, driver training, choosing the most effective routes and back-loading to ensure delivery vehicles weren't empty on their return journey.

#### Waste and value lens

Rose says her main message is not to go straight to an audit but recognise emission reduction is often about logical changes in business processes including viewing everything through a lens of value and waste, including people's time.

While having external verification and auditing through Enviro-Mark Solutions is valuable, she says there's

# shattky

## OPTOMETRISTS

### Meet Ryan: Shattky's New Optometrist



Ryan is one of the passionate Optometrists at Shattkys. Ryan has recently relocated back to New Zealand from Australia.

A southern man who had dreams of becoming an Optometrist since the age of 12. The idea of giving people the gift of sight and helping prevent the deterioration of vision are real motivating factors for Ryan.

When he's not practicing Optometry, Ryan enjoys the wilderness. Whether it's climbing Te Mata Peak with his young daughter in the front pack, or exploring the Kaweka Forest Park hoping to find wild game.

Ryan also hosts a podcast 'The Stag Roar' exploring the topics of health, well being, success, business pursuits and hunting.

### Special Interests

#### Myopia Control Therapy

A specialty that is focused on slowing down or stopping the progression or worsening of myopia in children and young adults.

#### Dry Eye Management

With the aid of IPL, Nutrition and Therapeutic Interventions to try improve the ocular surface.

#### Behavioural Optometry

Under the mentorship of Mark Eagle, strive to enhance childrens ability to learn.

#### Acquired Brain Injury (ABI)

Having suffered a serious head collision in rugby, Ryan uses Optical, Behavioural and Nutritional Interventions to improve symptoms and function following ABI.

**Book in to see Ryan during September or October, mention you saw this Ad in BayBuzz and receive 20% off a full eye examination.**

**We deliver unequalled eyecare and stunning eyewear for all ages.  
For more information visit Shattky Optometrists today in Hastings and Waipukurau.**

[www.shattky.co.nz](http://www.shattky.co.nz)

**shattky**  
OPTOMETRISTS  
*simply great vision!*

HASTINGS / 116 Russell Street South / 06 876 3777  
WAIPUKURAU / 36 Ruataniwha Street / 06 858 9117

f shattkysoptometrists  
i shattkyoptometrists



HB Technologies finance manager, Neville Smith and Enviro-Mark's, Josephine Rudkin-Binks



**“You can’t just pay for the privilege of being dirty... you have to change your behaviour... you can’t keep looking at the low-hanging fruit you have to continue innovating.”**

ENVIRO-MARK SOLUTIONS COMMERCIAL GENERAL MANAGER, JOSEPHINE RUDKIN-BINKS

in the UK, Australia, Chile and United Arab Emirates and has to date processed over 200,000 carbon credits.

While other consultancies and groups are gearing up offerings in the carbon space, Rudkin-Binks says Enviro-Mark Solutions is the only New Zealand body with international accreditation.

A number of universities, councils, district health boards and hospitals in the UK, the Scottish Parliament, Chile's Department of Agriculture, Eurostar High Speed Rail and over 30 of the largest construction and utilities companies in the UK are clients.

Rudkin-Binks insists the scheme has always been fit for purpose but the drivers for participation haven't been there. “We have strict rules around our carbon credits which are more stringent than anyone else's.”

She says “there's momentum and urgency” with business doubling in

the past two years and greater uptake expected with the introduction of the new Bill.

**Point of difference**

Onekawa-based HB Technologies is closely monitoring emissions generated through fuel consumption, electricity use, waste to landfill, its photocopier ‘fleet’, freight and other transport costs.

Finance manager Neville Smith says a core focus is waste reduction and recycling everything from packaging and polystyrene ... obsolete machines go to the Hastings Environment Centre.

The Ricoh dealer, specialising in printing, scanning, IT and communications, has been carboNZero accredited since 2011 and sees it as a point of differentiation that delivers bottom-line cost savings.

Its vehicle fleet is fitted with GPS to schedule regular maintenance and ensure technicians are sent out in a “geographically logical” manner.

Smith says carbon usage might be as simple as better lightbulbs, vehicle efficiency, driver training “so people don't plant their foot and waste fuel” or turning photocopiers off when they're not needed.

HB Technologies is still weighing up the pros and cons of adding EVs to its fleet, including battery life and disposal. The Government's agenda around this may make a difference, he suggests.

Rudkin-Binks says emissions reduction should be seen as part of a profit centre rather than a cost centre that can easily translate to efficiencies and savings in the procurement and supply chain.

**More than box ticking**

She suggests those who put their hearts and minds into the process rather than just ticking boxes are making the biggest reductions.

The average carbon-footprint reduction across both Enviro-Mark Solutions programmes in New Zealand is 17%. “We have a 98% retention rate of clients which demonstrates that people see value in doing this.”

Pyroclassic Fires in Hastings, part of the Fourth Element group, has lowered its emissions annually and over the past five years has achieved a 15% reduction.

“Everyone agrees we need environmental awareness and to take responsibility for what we're doing. We can't keep doing what we're doing and expect everything to be okay,” says director Rick Chalmers.

Pyroclassic manufactures two ultra-low emission burners (ULEB) designed and developed by scientists at the DSIR in the late 1970s. They feature a single cast-iron cylinder that burns more like a kiln environment than a conventional brick-lined steel box.

The company has 50 dealers in New Zealand, distributes in Australia and the UK, and is the world's first wood-fire manufacturer to be certified by carboNZero.

Chalmers says carboNZero helped Pyroclassic rethink its processes and through annual audits has halved waste output and eliminated almost all non-recyclable packaging. The remaining carbon load is offset through carbon credits.

Chalmers initially investigated buying forests to manage his own carbon credits but discovered how involved that was. “We decided to leave it to the farmers, forestry companies and large organisations who can recoup their investments.”

He says businesses need to consider how much of a priority carbon reduction is before engaging.

**Cost of compliance**

“For a small business it's a reasonably big undertaking, including time spent by staff on carbon-centric issues. It can seem arduous if you are not passionate.”

His advice is not to engineer a business as carbon neutral but identify what needs to happen now, and let understanding grow.

“Carbon can be generated in a vast number of ways so it's hard to make an arbitrary brush stroke; carboNZero is good at identifying this.”

For smaller businesses certification might cost a few thousand dollars plus annual audits and staff recording monthly data. The Enviro-Mark Solutions website suggests \$4,600 annually for a non-complex small office-based organisation with under 15 employees.

Rudkin-Binks says being carboNZero certified has marketing and branding advantages. “It's all about corporate responsibility and how your customers might feel if they see you doing business with dirty partners as opposed to procurement with a low-carbon hat on.”

If moving to EVs isn't on the agenda, checking staff driving habits ought to be. “Driving like a nana is actually good for the environment and safer.”

Rudkin-Binks says increasingly people are asking how to acquire carboNZero certified products and services.

**“Everyone agrees we need... to take responsibility for what we're doing. We can't keep doing what we're doing and expect everything to be okay.”**

PYROCLASSIC FIRES DIRECTOR RICK CHALMERS

She cites EcoTricity which sells carboNZero electricity, generated from wind, hydro and solar, a service 3R Group in Hastings uses to offset its carbon.

**Healthy reductions made**

The health sector is responsible for 3-8% of New Zealand's carbon emissions.

Hawke's Bay District Health Board (HBDHB) ramped up its own in-house efforts in March when departing chief executive Dr Kevin Snee committed to CEMARS to measure and reduce greenhouse gas emissions at its Hastings, Napier, Wairoa and Central Hawke's Bay sites.

Snee believed the hospital's high use of energy resources could be reduced by making small changes consistently. It now has annual targets for energy, carbon and sustainable waste management, including reducing waste to landfill, improving recycling and disposal of medical gases.

Champions have been appointed across departments and staff educated on wiser use of energy, including alternative travel to and from work and when attending meetings.

The DHB's Go Well Travel Plan, implemented in 2015, has increased sustainable vehicle transport by 15%, single occupancy travel by 18% and increased use of public transport and cycling by around 7%.

The team has installed a third secure bike store, established a bike pool and maintenance stations, installed e-bike charging and an EV station and increased the subsidy for staff bus transport.

As vehicle leases come up for renewal

plenty of room for businesses to look at how they might offset their own processes and impacts.

A key can be moving from a competitive mindset or attitude to collaboration and sharing resources in a way that benefits all parties. 3R Group is one of the driving forces in the Climate Leaders Coalition (CLC) formed in July 2018 to help the country reach its zero emissions goals.

It was an Enviro-Mark Solutions Carbon Reduction Exemplar in June 2018, having made a 35% reduction in emissions between 2013 and 2017.

The nascent CLC, in its first annual report, claims 90% of its 107 signatories are measuring carbon emissions in a goal to limit global warming to 1.5°C. Another optional pledge urges members to switch their fleets to electric vehicles, work with supply chains, reduce waste and trial biomass.

CLC signatories represent 60% of New Zealand's gross emissions, employ more than 170,000 people and represent nearly one-third of private sector GDP.

**Emissions escalate**

In April, according to the New Zealand's greenhouse gas inventory, our 2017 emissions had edged up 2.2% on the previous year to 80.9 million tonnes of CO2e despite the goal of 6% annual reduction and halving fossil fuel use by 2030.

The biggest emission sources were methane and nitrous oxide from the agriculture sector (48%), fossil-fuel generated electricity production (41%) and road transport at 18%.

Those areas will be specifically targeted by the Climate Change Response

(Zero Carbon) Amendment Bill expected to pass into law before the end of the year.

The Zero Carbon Bill proposes that we become largely carbon neutral with targets to reduce livestock and fertiliser emissions by 10% within the next decade and up to 47% by 2050.

Forest and Bird says it gives too many concessions for the agricultural lobby, while Beef and Lamb and Dairy NZ claim that what they regard as excessive methane restrictions will place unachievable limits on their production capabilities.

Some argue New Zealand will be forced to make deeper farming sector cuts than our trading partners, which could put the brakes on economic growth, or that it will simply add to our bureaucracy and do little to reduce actual emissions.

Some suggest that carboNZero might be just another way for businesses to carry on doing what they've always done, as long as they pay for the privilege through carbon credits. That is viewed as extremely cynical by Enviro-Mark's Rudkin-Binks.

She says carboNZero and CEMARS certification programmes require companies to show they are making reductions.

“You can't just pay for the privilege of being dirty ... you have to change your behaviour. After things have been in place for a while you can't keep looking at the low-hanging fruit you have to continue innovating.”

**Carbon accredited**

In New Zealand, both carboNZero and CEMARS have brokered carbon credits.

In 2013 both were folded into Enviro-Mark Solutions which now operates

**“For a small business it’s a reasonably big undertaking, including time spent by staff on carbon-centric issues. It can seem arduous if you are not passionate.”**

PYROCLASSIC FIRES DIRECTOR  
RICK CHALMERS

the DHB is moving to EV hybrids. A full electric vehicle is being trialled and could result in other acquisitions.

An integrated strategy across facilities management will reduce emission impacts and the DHB procurement team is reviewing its use of consumables, moving away from single-use disposable products to recyclable and compostable items.

It already has a food composting policy and a waste audit in September 2018 removed all polystyrene items from its catalogue with 50,000 less cups going to landfill each year.

Upgrades to policies and its building management system have meant more environmentally sustainable and efficient buildings. For example, the hospital’s boiler is being replaced to make it more energy efficient.

At the end of July, Associate Health Minister Julie Anne Genter, in releasing a new guide, *Sustainability and the Health Sector*, recognised the HBDHB for its leadership.

#### Warning from past

Businesses and organisations of all sizes are being urged to reduce their carbon footprint, with evidence-based reporting likely to be a requirement.

As the various pieces of this emerging climate change jigsaw evolve, the reworked ETS, and the global value placed on our progress and the value of our credits will be critical to how we are perceived on the world market.

The Morgan Foundation reports in April and August 2016 gave us a roasting when economist Geoff Simmons revealed we remained the biggest buyer of “junk carbon credits” long after the international scam was exposed in 2013.

The Climate Cheats report labelled

NZ “a willing participant in wholesale climate fraud” with local companies acquiring emission reduction units (ERUs) from Ukraine and Russia through the Government’s ETS programme.

Trying to meet our international emissions targets with ERUs that did not represent any true emission reductions, and allegedly undermined our reputation as a clean, green, corruption free nation.

Consequently, the value of our ETS carbon units plummeted with many investors pulling back from carbon forestry and much land reverting to dairy.

A follow up report, *Climate Cheats II: The Dirty Dozen Businesses*, named those who purchased \$200 million in “hot air credits” as only indicative, as many companies kept their data private.

The government of the day denied responsibility, but Simmons said it was ultimately responsible as it set the rules. The ETS continued to allow unlimited use of imported ‘fraudulent’ credits, even after 2013, when we were the only nation still accepting them.

#### Getting our house in order

The report urged New Zealand to get its own house in order before opening up to international trading again.

Enviro-Mark’s Rudkin-Binks says subsequent to those incidents New Zealand stopped importing overseas units. “Enviro-Mark Solutions has never allowed the use of units from Ukraine, Russia or indeed any poor quality units.”

“Any overseas units used by carbonZero clients are Gold Standard CDM units that have also been certified for the co-benefits delivered under the (UN) Sustainable Development Goals” with criteria that “meet and exceed international best practice”.

Rudkin-Binks says the ETS review identified the issue of poor quality overseas units although “we’re unlikely to know whether New Zealand has ‘its own house in order’ until it opens up to international trading again”.

Like many nations, New Zealand is pinning its near-term hopes on the carbon absorbing value of existing and new forests, including planting a ‘billion trees’ by 2028 along with more effective emissions pricing to encourage new forests and trees on non-productive agricultural land.

Among the concerns are that those incentives are already resulting in premium farmland being sold for carbon sink forests, including several thousand hectares, observed during a recent visit

to Taumarunui, planted in redwood trees by a Canadian company.

#### Forest or trees

Dame Anne Salmond recently stated the billion trees programme could see huge investments in forestation to gain carbon credits to the detriment of forestry diversity.

Despite the promise of two-thirds being natives, which sequester 40 times more carbon than plantation forests, she said foresters were using the fund to plant 88% in pine for which the ETS was paying much higher carbon prices.

Rudkin-Binks says ‘billion trees’ grants are for “planting the right species in the right place for the right purpose”; not all plantings will be eligible.

She says the debate has “many complex aspects”. Enviro-Mark Solutions only uses carbon credits from native forests through the PFSI and welcomes robust peer-reviewed consensus on native versus exotic forest sequestration rates.

A key factor in achieving carbon neutral status will be how agriculture responds. The Interim Climate Change Committee wants agriculture in the ETS between 2021 and 2025, with processors like Fonterra charged 5% of their emissions to be funnelled back into the sector.

That’s been slammed for giving the biggest emitter a two-year “free ride” before paying a “paltry” percentage. Farmers want their emissions excluded until 2025 with a voluntary deal separate to the ETS. Whatever the deal is, it will be in place during 2020 as part of proposed Zero Carbon law change.

Achieving zero carbon within 30 years will require massive societal change.

The challenge remains ... can thought leaders like the Climate Change Coalition and willing participants in Enviro-Mark’s programmes make enough of a dent in our emissions so we can reach our carbon zero target, without being disadvantaged against overseas competitors who are escalating their use of fossil fuels? ●



Unison is pleased to sponsor robust examination of energy issues in Hawke’s Bay. This reporting is prepared by BayBuzz. Any editorial views expressed are those of the BayBuzz team and do not reflect the views of Unison.



# Looking into EIT’s future

On 1 August the Minister of Education, Chris Hipkins, released the decisions of the Reform of Vocational Education (RoVE). He then confirmed what the ITP sector had been speculating on for months: From 1 April 2020 onwards, there will be only one ITP, with a working name of the NZ Institute of Skills and Technology (NZIST). NZIST will include all existing 16 ITPs.

On 1 April 2020, EIT will become a subsidiary of the new national institute. On the same day the EIT Council will be replaced by an EIT subsidiary board of the new national institute.

EIT is not averse to beneficial change and acknowledges that there are a number of flaws in the current vocational education system.

“Our regions’ leaders fought a passionate campaign on behalf of the current structure of EIT. We know Hawke’s Bay’s social and economic needs best and want to remain agile to meet them,” says EIT deputy chief executive, Mark Oldershaw. “We are an anchor organisation in Hawke’s Bay, one that competently brings crucial and measurable benefits to our community.”

It is not yet foreseeable how much autonomy the single ITPs will keep. However, the government’s express commitment to ensuring strong regional leadership offers cause for optimism.

It is important to re-emphasise that the Minister’s reform is solely targeting vocational education. 23 % of EIT’s equivalent

full-time students fall into the vocational category and study programmes from certificate level up to level 6 diplomas. This means, by implication, that the reform will not have an immediate impact on the other students who are enrolled in degrees and postgraduate qualifications.

Greater success for Māori is one of the Minister’s priorities. EIT has one of the highest levels of Māori student participation and success within the sector (60 % qualification completion rate in 2018, compared with 62 % for non-Māori).

“Māori students at EIT have one of the highest rates of progression from certificate to higher level study. EIT regards success in this area as fundamental if the reforms are to be successful,” says Mr Oldershaw.

Over the next couple of years, there will be minimal change. The reforms will take time and the government will work closely with EIT to manage the transition. Students can therefore confidently enrol in multi-year programmes. They will be able to complete their studies through EIT and graduate with an EIT-branded qualification.

There is still so much to be determined by the Establishment Board, and EIT will work with the new board to ensure that decision making is kept as close to education providers as possible.

**“We are an anchor organisation in Hawke’s Bay, one that competently brings crucial and measurable benefits to our community.”**



Mark Oldershaw, EIT deputy chief executive