

Not just hot air

Carbon foot printing in NZ

*Author: Dr Ann Smith
Date: 5 February 2015*

Inspiring Action for a Better Environment

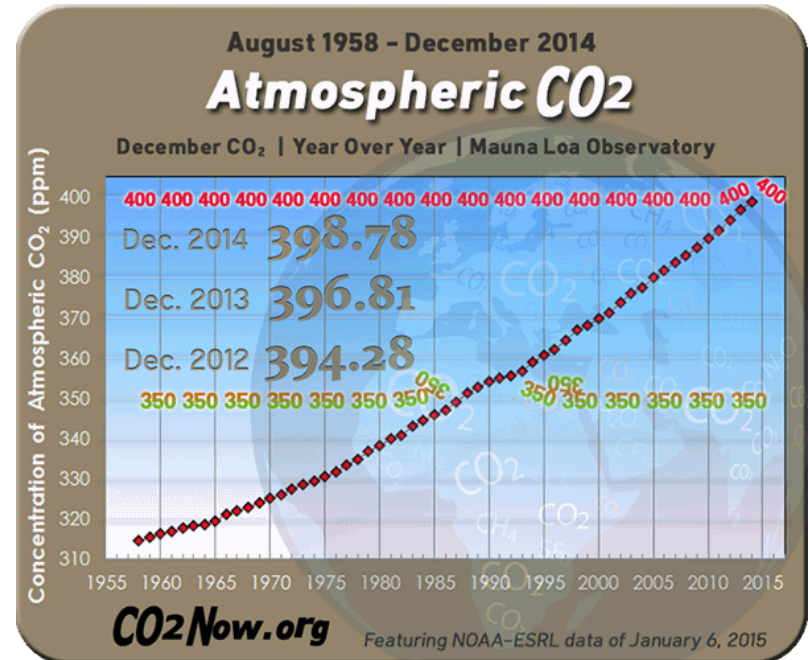
P O Box 69040 • Lincoln 7640 • New Zealand
Gerald Street • Lincoln 7608 • New Zealand
0800 ENMARK or +64 3 321 9831
www.enviro-mark.com



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Current status

- Atmospheric GHGs continue to rise
- The science case has been made*
- Aim to limit temperature increase to within 2°C
- Need economic case to facilitate political action



*See IPCC Fifth Assessment Report and Parliamentary Commissioner for the Environment report, November 2014
“Changing climate and rising seas: Understanding the Science”



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The Climate Group

“We believe that climate change doesn’t need to be a political issue, but one that is focussed on building a strong low-carbon economy.”



UK climate change policies have not harmed economy, report says

Grantham Institute study says climate legislation has not harmed UK businesses, reports BusinessGreen

The UK Government reviewed its carbon budget in 2014 and UK secretary of state for energy and climate change Ed Davey has confirmed that the UK continues its mandatory commitment to emissions reduction targets of 50% reduction against 1990 levels by 2025 and 80% reduction against 1990 levels by 2050.

"Today's decision cements the UK's place as a global leader in combating climate change, which will allow ...us to play a central role in delivering a global deal to combat climate change at the end of 2015," he said.



What do we expect at COP21?

- Nationally Determined Contributions
- Targets not binding; policies binding
- Unlikely enough to achieve 2°C limit
- Offsetting to play a big role
- Net zero emissions by 2100
- Energy, transport and economic policies important role to play*

*New climate economy report coming by Sir Nicholas Stern, Ross Garnaut and others, lead by Helen Clark and the heads of OECD and World Bank



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1 India has doubled its coal tax and will use the money to fund renewable energy projects.

2 Jamaica has installed the world's largest wind-solar array.

3 The UK is converting three former coal mines into solar farms.

China tells firms to start reporting carbon emissions

China to Cut Dependence on Coal for Energy as Smog Chokes Cities

U.S., China agree to work on climate change

BEIJING Sat Feb 15, 2014 1:16am EST

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ENERGY, CLIMATE CHANGE,
AND OUR ENVIRONMENT

The President has taken unprecedented action to build the foundation for a clean energy economy, tackle the issue of climate change, and protect our environment.

**CONGRATULATIONS
GERMANY!**
for pledging **\$1 billion**
to the UN Green Climate Fund

THE GCF WILL FUND PROJECTS WHICH HELP
DEVELOPING COUNTRIES TACKLE CLIMATE CHANGE.

GLOBAL WARMING

Could California Go All in On Renewable Energy?

JUL 29, 2014 01:46 PM ET // BY SHEILA M. ELDRED



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Role of business in COP21

- Engagement of cities and business sector is key to low carbon economy
- Private sector being urged to take decisive climate change action
 - Caring for Climate (C4C) – 126 signatories, 269 targets to reduce GHGs
 - Business and Investor Working Group
 - Business Leadership Criteria on Carbon Pricing
 - WWF, WRI, CDP, UN Global Compact
 - Mind the Science, Mind the Gap
 - Montreal Carbon Pledge
 - Principles for Responsible Investment
 - UNEP Finance Initiative

DEPARTMENT OF ENERGY AND CLIMATE CHANGE UK ON STAYING WITHIN 2°C

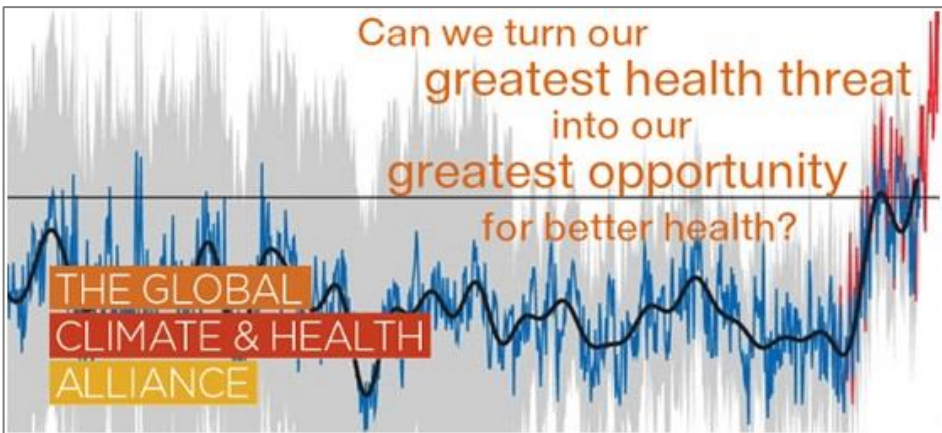
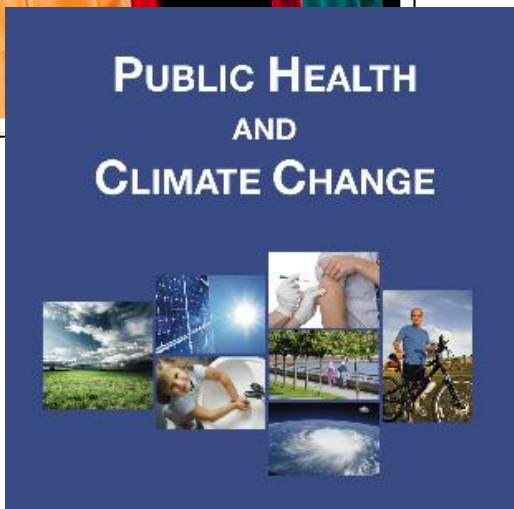
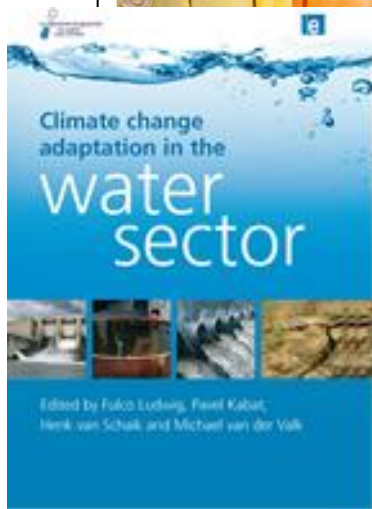
- Expand forests by 5-15%
- Increase crop yields by 40-60%
- Reduce carbon intensity of electricity production
- Change cars to EV
- Diets with higher proportion of vegetables
- Meat from intensive production

<http://tool.globalcalculator.org/globcalc.html>



How Will Climate Change Affect What We Wear? Surprise! It Already Has

Posted: 11/08/2012 9:13 am EST Updated: 11/08/2012 12:50 pm EST



CLIMATE CHANGE
AGRICULTURE AND
FOOD SECURITY



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Important signals

- Decarbonisation of investment portfolios
- Latest CDP report shows direct correlation between carbon reporting and profit
- Regional emissions trading schemes in Canada, China, USA
- USA and China announced reduction targets leading up to COP20 in Lima
- 3 Australian states are members of the Climate Group



Stranded assets and the fossil fuel divestment campaign: what does divestment mean for the valuation of fossil fuel assets?

Leading businesses call for global green policy to keep “trillion tonnes of carbon” underground

Green policy news – by GreenWise staff
8th April 2014

More than 70 international companies, including leading energy and fossil fuel companies, are today calling on Governments around the world to help them take action to prevent more than a trillion tonnes of carbon from being emitted into the atmosphere.

The Trillion Tonne Communiqué is signed by major international companies including the UK's Unilever, Kingfisher, BT and Marks and Spencer. Fossil fuel multinationals Shell and EDF Energy are also among the signatories. One of the aims of the communiqué is to secure net zero emissions goal by the end of the century. It also urges Governments to do more to create a new, sustainable energy system and to manage the unabated emissions from fossil fuels, especially coal.

Dunedin becomes first NZ city to divest from fossil fuels

Wednesday, 14 May 2014, 9:27 am
Press Release: 350 Aotearoa

Dunedin becomes first city in New Zealand to divest from fossil fuels



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Business activity overseas

- Many major companies globally are reporting/reducing GHGs through compliance and/or voluntary action
- Europe: EU-ETS and Energy Efficiency Directive
 - UK CRC Energy Efficiency Scheme
 - UK Energy Savings Opportunities Scheme (ESOS) expected to provide £1.9 billion benefit to UK economy
- CDP: over 5,000 companies
- Many stock exchanges requiring GHG or sustainability reporting
- Other voluntary activities include
 - Supply chain initiatives
 - Ecolabels, EPD, PCF, PEF
 - Voluntary carbon reduction and carbon neutral schemes

COMPLIANCE SCHEMES

- EU ETS
- CRC-EES (UK)
- Swiss ETS
- California cap-and-trade scheme
- Western Climate Initiative (5 USA states)
- RGGI (10 states USA/Canada)
- Canada: Alberta, British Columbia, Quebec cap-and-trade schemes
- NGER (Australia) – reporting only
- Kazakhstan ETS
- South Korea ETS
- China – 7 provinces have ETS

COUNTRIES WITH CARBON TAX

- Chile
- Costa Rica
- Denmark
- Finland
- India
- Ireland
- Japan
- Netherlands
- Norway
- South Africa
- Sweden
- Switzerland
- UK
- USA: Colorado, Maryland



Compliance activity in NZ

- 252 non-forestry companies participate in the NZ-ETS
 - 96 Stationary Energy
 - 79 Agriculture
 - 34 Waste (Councils)
 - 26 Industrial Processes
 - 10 Liquid Fossil Fuels
 - 6 Other Removal Activities
 - 155 Forestry
 - 2171 Forestry Removal Activities

WHAT DOES THE NZ-ETS MEASURE AND OFFSET

- Partial footprint compared to voluntary measurements
- Specified emissions sources for that sector
- Methodology negotiated with the industrial sector
- Offset 1 unit for each 2 units of emissions
- Reporting companies may surrender units or pay money
- There is no verified GHG reduction
- Cannot be compared with other national emissions trading schemes
- Does not deliver carbon neutrality



Voluntary business activity in NZ

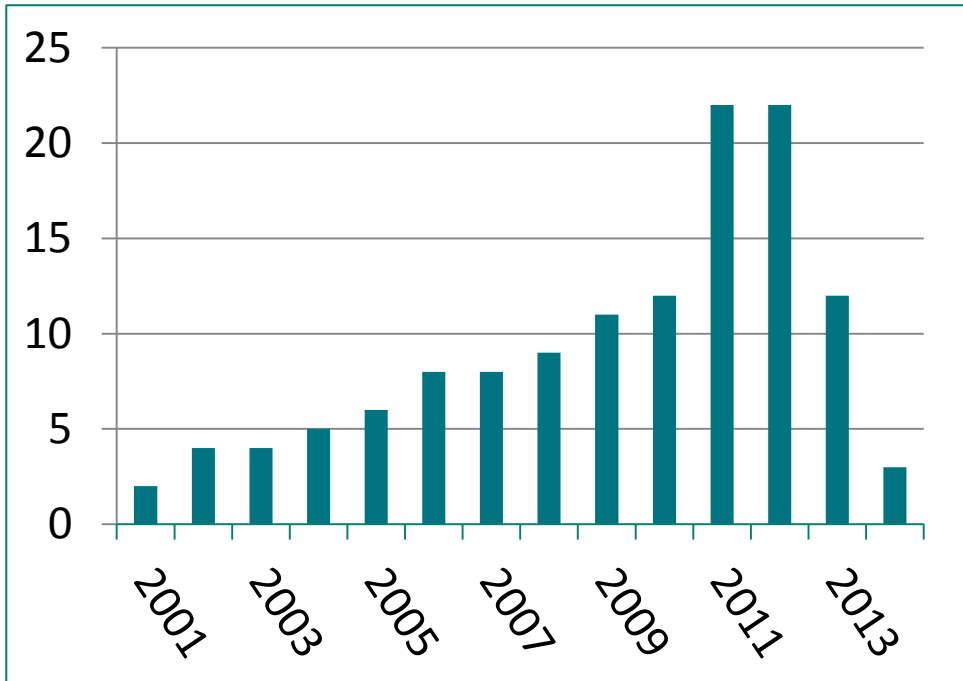
- **12** GRI reporters in 2013
- **15** (28%) of NZX companies completed 2014 CDP questionnaire
- **68** BusinessNZ SBC members
- **270** of NZ's best known brands in CEMARS, carboNZero, Enviro-Mark programmes
- **456** SBN members (February 2015)

15 NZ COMPANIES COMPLETED THE 2014 CDP QUESTIONNAIRE

- Air NZ
- Auckland International Airport
- Chorus
- Ebos Group
- Fisher & Paykel Healthcare Corporation
- Fletcher Building
- Freightways
- Goodman Property Trust
- Kathmandu Holdings
- Kiwi Property Group
- Meridian Energy
- Precinct Properties
- Telecom Corporation of NZ
- Vital Healthcare Property Trust
- Warehouse Group



GRI reporting by NZ companies



12 reported in 2013

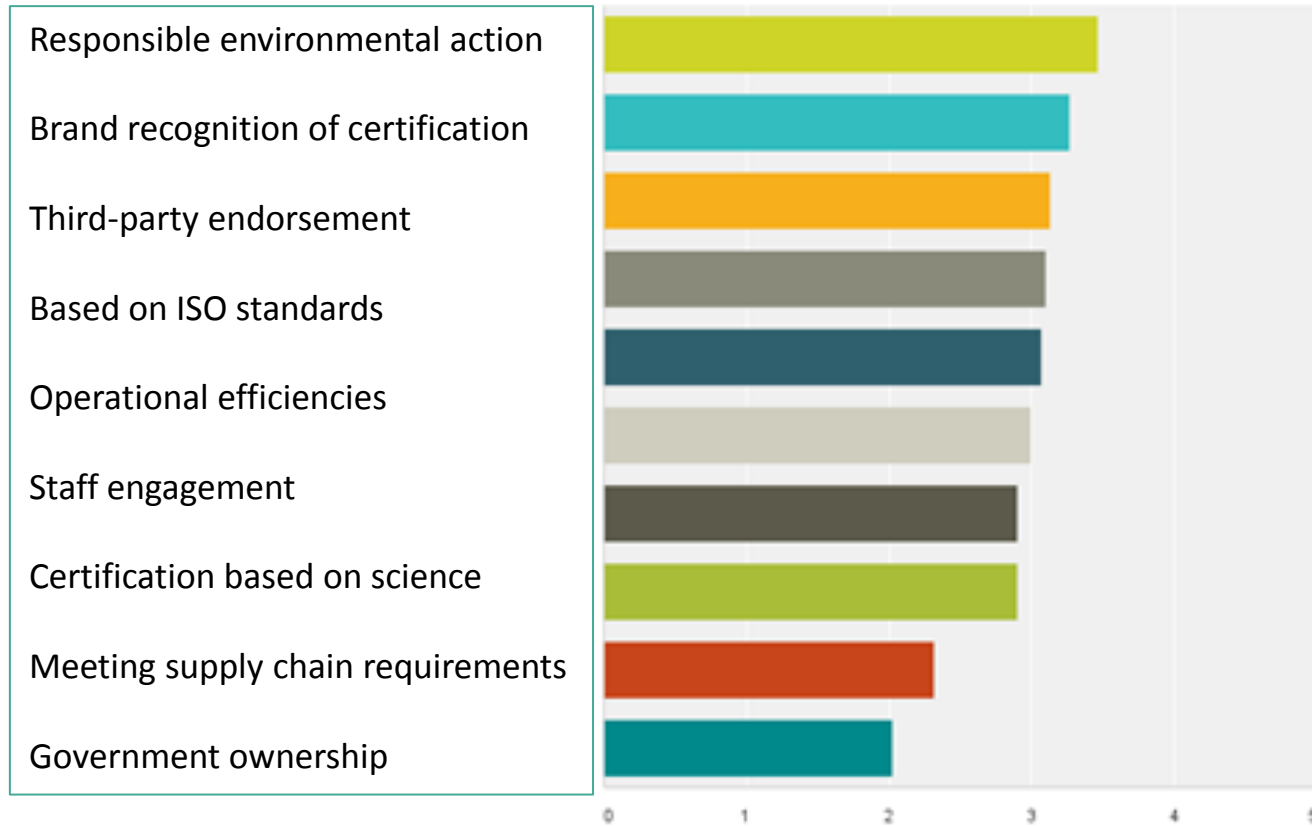
- ASB Bank
- Auckland Council
- Auckland Airport
- Christchurch Airport
- Contact Energy
- Department of Corrections
- Fletcher Building
- Genesis Energy
- IAG New Zealand
- Kathmandu
- Landcare Research
- Meridian Energy
- Metro Water
- Mighty River Power
- NZ Aluminium Smelters
- NZ Post
- Opus International
- Ports of Auckland
- Ricoh NZ
- Sanford
- Solid Energy
- Sovereign Insurance
- Tall Poppies
- Telecom NZ
- Toyota NZ
- The NZ Refining Company
- The Warehouse Group
- TrustPower
- URS New Zealand
- Vodafone NZ
- Waitakere City Council
- Watercare Services
- Westpac Bank NZ



Some of the CEMARS and carboNZero certified companies



Most valued qualities of CEMARS and carboNZero certification



Carbon and energy are business issues

- Customers, communities and governments around the world are increasingly concerned about the impacts of climate change
- Bankers, insurers, stock markets are increasingly judging companies for their climate change risk
- Many companies are working actively to reduce their carbon footprint and improve energy efficiency



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Business advantages

- Help achieve compliance obligations and supply chain demands
- Reduce business costs
- Marketing advantage and benchmark against competitors
- Build capability, attract and retain committed staff
- Future proof the company



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Adding value in practice

- **Achieve cost savings through innovation and operational efficiencies**
 - Toyota \$200,000 in energy savings and \$2 million in reduced freight and travel costs
 - Auckland War memorial Museum \$900,000 in energy savings within 3 years
- **Enhance market access and competitive advantage**
 - Yealands Wine Estate boosted their brand and gained new markets
 - Tahbilk Wines sought carbonZero certification to access the Swedish market
 - ASP Floors won a \$20 million contract where one of the deciding factors was its commitment to gain CEMARS certification
- **Ensure credibility and integrity of customer claims**
 - Cono Sur Vineyards and Winery moved to CEMARS to gain market access; its previous green credentials were challenged by a major UK retailer
- **Strengthen reputational and regulatory risk management**
 - Anglian Water was instructed by its owner, the Canadian Pension Fund, to choose CEMARS over the Carbon Trust Standard because CEMARS is more robust, based on an ISO standard and accredited
- **Facilitate compliance in procurement and licence to operate**
 - SSE requires its suppliers to seek CEMARS certification
- **Underpin customer strategic decision-making**
 - Wellington Combined taxis sought certification in order to make a business case for changing its vehicle fleet to hybrid over time
- **Enhance customer's point of difference**
 - Wellington Zoo, Oamaru Penguin Colony, The Kauri Museum and Rotorua Island have achieved a point of difference in the tourism sector through their certification
- **Stimulate innovation**
 - Bridgestone Tyres sought certification to provide credibility in their market for a new product that improved fuel efficiency
- **Build customer and staff loyalty**
 - Ricoh use the programme framework to motivate staff
 - Wellington Combined Taxis and OfficeMax are preferred suppliers to large corporates and government departments



High moral imperative but few rewards

DRIVERS for climate change action	NZ	Europe, North America, Asia
Compliance	Weak	Strong
Government incentives	Weak	Strong
Institutional investors	Weak	Strong
Shareholders	Weak	Strong
Health	Strong	Strong
Food security	Weak	Strong
Supply chain	Weak	Strong
Government procurement	Weak	Modest
Competitive advantage	Modest	Strong
Consumer demand	Modest	Modest
Consumer awareness	Strong	Strong
Economic advantage	Weak	Strong
Innovation	Modest	Strong
Cost savings	Modest	Modest
Moral imperative	Strong	Modest

Consumers ahead of business in sustainability awareness

✍ EDITOR / 📅 NOVEMBER 12, 2014 / 📰 NEWS / 💬 LEAVE A COMMENT



Consumers are ahead of business when it comes to their attitude towards sustainability and it affects consumer decisions more than businesses seem to realise, according to Colmar Brunton's 2014 Better Business Report.



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What can the NZ government do to encourage the business sector

- Include carbon and energy performance criteria in procurement decisions
- Ensure that credentials given procurement points can be substantiated under the reforms to the Fair Trading Act
- Set national GHG reduction targets that businesses can relate to
- Government agencies and departments match the improvements in carbon and energy performance expected of business community
- Understand the impact of carbon and energy performance improvement on the economy
- Develop enabling policies that reward the business sector for carbon and energy performance improvements
- Encourage NZX to set GHG reporting requirements
- Include carbon in government procurement requirements
- Set GHG reduction targets and provide incentives
- Government agencies set example and “walk the talk”
- Track economic benefit
- Encourage institutional investors and NZX to address the risks



Understand the risks

- Shareholders have asked Shell what the business model will be if global emissions are to be reduced sufficiently to achieve the 2°C limit.
 - Shell agreed to a shareholder resolution that includes a ban on corporate bonuses for climate-harming activities and a commitment to invest in renewable energy.
 - What will be the business model for NZ Inc?
 - What are the risks for the NZ primary sector?
- Its not about saving the planet.
 - Its about future quality of life and well-being for communities, business and industry.



Enviro-Mark Solutions Limited

- Subsidiary of Landcare Research NZ Limited
- Crown Research Institute
- 100% owned by the New Zealand government
- Over 15 years research and development underpins our certification programmes



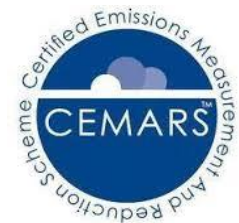
Landcare Research
Manaaki Whenua



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Our programmes

- carboNZero programme
 - ISO 14064-1 for organisation
 - PAS 2050 for product footprints
- CEMARS
 - ISO 14064-1 for organisation
 - PAS 2050 for product footprints
- Enviro-Mark programme
 - 5 step environmental management programme (exceeding ISO 14001)
- Energy-Mark
 - 3 step programme leading to ISO 50001



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Our credentials

- Accredited by Joint Accreditation System of Australia and New Zealand
- CEMARS recognised by UK government for carbon and energy compliance
- CEMARS approved as a verification standard for companies reporting into the Carbon Disclosure Project



WWW.JAS-ANZ.ORG/REGISTER



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Further details

Enviro-Mark Solutions Limited

www.enviro-mark.com

www.facebook.com/EnviroMarkSolutions

www.facebook.com/DrAnnSmith

ann.smith@enviro-mark.com



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