

The Green RIG – driving eco-education



Drive in, park and open up: New Zealand's rapid deployment Green RIG low-emissions eco-truck and trailer unit ready to welcome visitors into an on-board interactive experience.

Horizons Regional Council

Thinking outside the box, a small regional government agency in New Zealand has taken its environmental education 'show on the road – in an 18-metre-long 'big green box on wheels', called the Green RIG.

As the education flagship for environmental management agency Horizons Regional Council, the name RIG stands for 'Regional Information 2 Go'. And boy does this custom-built eco-truck and trailer go! New Zealand's first, international award-winning, mobile, environmental facility is best described as part cellphone, part Swiss army knife; and her 14 wheels of 'eco-thunder' pack a huge technological and educational punch.

The Green RIG started out as a desktop dream of Horizons' Regulatory and Planning Manager, Greg Carlyon. He admits the early concepts looked more like a caravan than the gleaming articulated truck and trailer unit you see today, but as the idea and funding support grew, so did the mobile space needed to make it work.

'It has completely changed the way our community talks about sustainability as it is so accessible in the way it presents

and deals with the issues,' says Carlyon. 'Whether we're talking to cockies [farmers] at a farm field day, or leading the kids on an eco-crime scene investigation in a patch of bush by their school, it's all about giving them an experience that both entertains and engages them with the issues that matter.'

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The RIG's educational payload comprises a suite of high-tech, hands-on interactive games and educational exhibits, all themed around the pressing environmental issues in the Council's area of responsibility – the North Island's Manawatu-Wanganui region. With over 26 000 people visiting the RIG in its first year of operation, close to 12 per cent of the region's inhabitants have already been

exposed to Horizons' environmental care messages in a fun, friendly fashion.

'We put the RIG's success down to a mix of things,' says RIG Operations Manager, Alistair Beveridge. 'First up, we go out to our target audience, sometimes in quite remote areas, meeting them at their place and in their environment. Secondly, it's available free to schools and community groups and our education programs are tightly linked to the school curriculum. And thirdly, it breaks with tradition! It's bright, shiny, looks good and provides a hands-on experience – a stark contrast to the Council's community engagement tools of the past – the printed word and dull public meetings.'

Hill-country erosion, biodiversity loss, declining water quality and water scarcity all feature in the on-board exhibits and teacher-lead environmental education programs. Although the content caters to all ages, one of the most popular activities is the schools biodiversity program that runs out of the ESI (Environmental Scene Investigation) Lab.

Helen Brown, one of two full-time educators who teach from the RIG, enthuses, 'the kids just love putting on the ESI lab coats and examining the clues we set out for them. They have to figure out who killed the kiwi, based on the scat and prints of introduced predator animals they find about the "eco-crime" scene. It's real hands-on learning that brings biodiversity issues alive.'

The Green RIG's high-tech payload includes a mobile broadband satellite link, on-board video conferencing system, GPS tracking unit, dash-mounted webcam and, in the spirit of making the most of on-board resources, is also fully equipped as a back-up emergency communications centre.

Thankfully, the RIG's not yet had to flex her civil defence capability muscles, but Horizons' big green girl can certainly hold her own in the event of an emergency. Attracting the attention of experts gathered at a national emergency management forum at Parliament in Wellington, the Director of the Ministry of Civil Defence & Emergency Management, John Hamilton, noted, 'if an existing EOC (emergency operations centre) is damaged, or there isn't one close enough to the scene of an emergency, the Green RIG can drive there and then power its EOC from mains electricity, solar panels or its on-board generator.'

'It's fully equipped with computer and office equipment, and communications systems, including telephone PABX,



School's in: children from Kimbolton School in the Manawatu-Wanganui region tackle the touchscreen exhibits and wall-mounted interactives inside the Green RIG exhibition trailer.

Horizons Regional Council

satellite links, radio telephones and mobile telephone network connections. The RIG also brings a bright orange inflatable dome that can be used for shelter, more office space or to provide accommodation for welfare services like first aid and catering.'

The orange dome attaches like an awning to the main entrance of the RIG and, like everything else on the truck, has multiple-uses: being an all-weather classroom, display or meeting space, and also part of the eco-friendly vehicle design.

RIG Designer, Emmanuel Yiannoutsos of EmmanuelDesign comments, 'you'll find no energy hungry air-conditioning on the RIG. Instead, roof hatches and the open, shaded structure of the dome help capture and funnel cooling breezes inside. The RIG's also well insulated against solar gain – we prefer to capture that and turn it into power using our solar panels.'

Energy efficient design was used to keep the Green RIG's 'tyre tread' (or environmental footprint) to a minimum. Solar energy from eight rooftop solar panels deliver a portion of the RIG's daily power needs and it's kitted out with energy efficient LED lighting and appliances. This means the RIG's infrastructure also doubles as a teaching tool and educational display, with on-board power use tracked and displayed and some exhibits showcasing energy saving measures.

Despite Horizons' efforts to pioneer green vehicle design and an on-board renewable energy source, the RIG does occasionally cop some criticism from visitors about its perceived footprint. 'They have a point,' says Beveridge, 'but we counter it with the question "Is the footprint of taking the RIG to our audience smaller than expecting our audience to come to us?," and it provides a good discussion starter for the issues. We've tried hard to tread as lightly as possible on our environment, including a carbon-offsetting scheme, purchasing a low-emission tractor unit to tow the RIG, and being first in line to run the RIG on biofuel as soon as it becomes readily available in our region.'

● **Bettina Anderson**

More information:

Green RIG program, www.greenrig.co.nz

Horizons Regional Council, www.horizons.govt.nz

Innovation grants for *Climate Ready* projects – now open

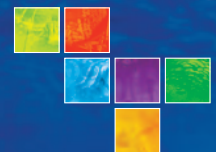
Applications are called for innovation grant projects for up to 50% of costs, ranging from \$50,000 to \$5 million and up to three years duration.

Applications are encouraged for projects that address the effects of climate change, such as:

- water recycling, waste recovery or small scale renewable energy technologies that reduce the energy used by appliances or increase the efficiency of industrial processes
- products, processes or services to monitor emissions or power usage using biotechnology or nanotechnology to address the effects of climate change on humans and the environment
- information systems for businesses or consumers to compare the carbon footprints of different activities
- green building materials that make homes more energy efficient.

The program opened on 28 July 2008 and three rounds remain for 2008-09.

- Round 2 closes 4 December 2008.
- Round 3 closes 12 March 2009.
- Round 4 closes 25 June 2009.



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