



FEATURES

Net-Works participants with Interface carpet tiles made from recycled nylon.

Is your carpet dolphin-friendly?

Coastal clean-ups and carpets combine in Net-Works, an initiative providing a livelihood for poor coastal communities and an ingenious source of recycled material for Interface carpets.

The environmental cost of making millions of square metres of carpet a year is staggering. Not only is most new nylon petroleum-based, but in Australia and New Zealand, 5000 garbage trucks of commercial carpet make their way into landfill each year.

Thankfully, a chief executive in a company that Australian Ethical invests in, is trying to make a difference. Ray Anderson is CEO of American carpet-tile manufacturer Interface. For decades he has been committed to 'Mission Zero' - a project to eliminate any negative impact that the firm has on the environment by 2020.

Ten years ago, Interface began working with yarn supplier Aquafil to find innovative ways to help eliminate virgin fossil fuels from their carpets. Aquafil pioneered a system that can regenerate used nylon product and carpet fluff, turning it into a Nylon-6 yarn.

Interface wanted to do more so they organised a workshop with industry partners to thrash out how they could access additional waste nylon. Heather Dietz, Interface's co-innovation communications manager, says it opened up all sorts of interesting questions such as "Could we create a dolphin-friendly carpet?"

Dr Nick Hill of the Zoological Society of London (ZSL) drew the group's attention to the devastating impact

discarded nylon fishing nets were having on marine environments. Fishing nets take up to six hundred years to break down, and during this time they continue to catch and kill marine life with no human benefit.

The group began thinking: "What if we could design a collaborative, inclusive model which brought some of the poorest people into the world into a global supply chain, increased our access to post-consumer recycled nylon, while cleaning up the environment at the same time?" says Dietz. The result is Net-Works.

Net-Works is an inclusive business model. It empowers fishing communities in developing countries to collect the discarded fishing nets, clean them and sell them back into the program by way of community banking groups. Nets are then sent to Aquafil, to be regenerated into nylon yarn and finally Interface carpet tiles.

Net-Works is a wonderful example of "the circular economy" (described in detail in the "Urban Mining" article on page 9). It provides a truly restorative loop in carpet tile production. The program currently operates in 14 sites in the Philippines and will soon expand to Cameroon, Africa.

"To date, 41,400kg of nets have been collected from our Philippine sites. Stretched end to end, that would cover the distance around our planet!" says Dietz. If you want to think about that in marine terms - that's more than the weight of an adult humpback whale! Pretty impressive. ●

PHOTO: INTERFACE INC. TEXT: ROGER BALCH

The Net-Works process



COLLECTING AND CLEANING
The local communities collect, aggregate and clean discarded nylon fishing nets.



BUYING
The old nets are then sold through Net-Works, providing participants with a supplement to their income.



BALING
A mechanical baling machine developed for the project compresses and packs the nets without electricity.



SHIPPING
The nets are shipped to Aquafil.



REGENERATION
Aquafil's ECONYL® Regeneration System turns the Nylon 6 from the waste nets into 100% recycled carpet yarn.



PRODUCTION
Interface purchases this 100% recycled yarn and turns it into beautiful carpet tiles.



FEATURES

Green energy electrifies local communities

Groups all over Australia are taking control of their energy needs as part of a worldwide movement that could short-circuit the business models of major power suppliers.

Driven by a desire to take control of their own energy destiny and a commitment to renewables - not to mention lower power bills - consortiums of not-for-profit and commercial organisations are generating and buying their own renewable energy and selling it to the community.

In Sydney, the movement gained momentum one early autumn evening in 2013. An all-ages crowd from a broad range of networks gathered in Redfern Town Hall to hear speakers such as UNSW renewable energy professor Mira Watson and the founder of influential website RenewEconomy, Giles Parkinson.

"We didn't have a budget, so it was very minimal," >

PHOTO: ISTOCK TEXT: EMILY WEEKES

Sydney's skyline is set for more large-scale solar panel arrays like this one at Sydney Theatre Company.



First Solar (who Australian Ethical invests in) is helping build community owned energy projects in the US, like this utility-scale PV facility.

says organiser April Crawford-Smith, “but a concept like this spreads quickly because people want to know more.”

During the forum, a workshop was proposed to consolidate the group. A body dedicated to supporting and advocating on behalf of the community energy sector, Community Power Agency, offered to facilitate the workshop.

The result is Pingala, a non-profit association committed to building community-funded solar projects, enabling roof-owners and investors to reap the rewards of renewable energy. Armed with renewable energy engineers and solar panel specialists, Pingala assesses the technical feasibility and pricing of each project, proceeding only when modeling indicates a minimum 5% return for investors. It’s forecast that solar would be installed on local sites such as schools, clubs, organisations and businesses.

“The host site doesn’t pay anything upfront. Instead they pay a fair rate for electricity [generated from the panels] and then they own the solar panels over a time frame,” explains Crawford-Smith. The fixed rate allows Pingala to repay the cost of purchasing the panels, with many projects already in development and some ready to start.

“It’s a massive learning curve for us,” says Crawford-Smith. “Some of us may be lawyers or accountants but we’re all covering new ground. The legal and financial framework is quite different for a \$500,000 project to that of a local pub.”

“We intend to make it as accessible as possible,” she says, “so that anyone with spare cash can be a part of this.”

MAKING A COLLECTIVE IMPACT

The community renewable energy sector might be relatively new in Australia, but there are plenty of projects to support. According to the Community Power Agency (CPA) approximately 60 groups are in operation and of these, 11 are already generating energy.

Local groups are following in the footsteps of an international surge of community-owned clean energy projects motivated by a desire for individuals to take control of energy at a household level. This growing interest in community energy in Australia not only benefits locals nationwide, but also Australian Ethical investors through holdings in Vestas and First Solar.

Vestas is the only global energy company dedicated exclusively to wind energy. They recently won a 42MW wind-turbine order for one of the largest citizen-owned wind power plants in Germany. Meanwhile, First Solar in the United States has partnered with the Clean Energy Collective to develop community solar projects that allow people to use solar without putting panels on their roofs.

As Crawford-Smith from Pingala sees it, “there’s only so much that an individual can do. It’s only when you come together that you start to see the bigger impact – we’re always keen to hear from people with financial expertise too.”

EUREKA – WE’VE BUILT A NEW BUSINESS MODEL!

Meanwhile in Victoria, Dave Kerin is driving the notion of collective impact in a slightly different direction with the Earthworker Co-operative.

The initiative is committed to creating sustainable jobs and clean-energy solutions across Australia. Its first venture is the Eureka’s Future Worker’s Co-operative: a worker-owned factory that manufactures solar hot-water systems in Morwell in the coal-dominant Latrobe Valley.

Elsewhere in the state, a unique partnership means production is already underway. Everlast, a solar hot-water tank manufacturer in Dandenong, is in the process of becoming part of the Co-operative. Threatened jobs have been saved and a crowdfunding campaign brought in close to \$80,000. According to Kerin, all of Everlast’s workers want to come over to the new model by becoming worker-owners – including the boss.

Kerin has spent the past 16 years studying co-operatives, such as Mondragon in Spain’s Basque country, while manufacturing withered at home. Today, he leads an unlikely army of co-operative champions with trade unionists, business owners, activists, environmentalists and local councils all onboard. “We’re united by our determination to create jobs that never leave our shores,” says Kerin. “The jobs for us are the profit.”

Based on enterprise bargaining agreements (EBAs) between unions and employers, the new business model allows workers to purchase solar hot-water systems through salary sacrificing. This reduces their hot-water bills and produces years of energy returns. In addition, a unique partnership with customer-owned BankMECU*, offers a low-interest loan to purchase a Eureka’s Future hot-water system.

“It’s a new model based on product, so there’s no gap between labour, sales and investment,” Kerin explains. “We want to move from solar hot water to the full range of green technology: solar thermal, large wind and small

“We want to move from solar hot water to the full range of green technology: solar thermal, large wind and small wind, and biomass.”

wind, and biomass.” They are negotiating four EBAs: a university, major council, community-based agency and Earthworker’s own, Eureka’s Future. “We’ve picked three models that cover major employers in the Australian economy,” says Kerin. “If we get 10% of that market, we could still keep up with the work.”

With membership from as low as \$20 a year, he hopes to sign up 100,000 members initially in the hope that – that one day – all Australians might become “Earthworkers.” “It’s not a lot of money but we can do a lot with it,” says Kerin. “People can help build the micro-capital needed to start other co-ops.”

With plans for a Eureka’s Future Workers Co-operative in each state and territory, and an indigenous co-operative, Kerin aims to achieve 5% intake of indigenous worker-owners and work with Aboriginal apprentices. They are also committed to donating 5% of all the surplus from Earthworker Co-operatives to a social justice fund. Solar-roof ventilators have already been installed in two low-income houses in partnership with the Father Bob Maguire Foundation.

“It’s really interesting to see that no-one opposes our social justice mandates,” says Kerin. “It’s tapped into something that political analysis simply doesn’t show: that is, if people can see a way to do things, Australians will get behind it.” ●

PHOTOS: (SOLAR) ISTOCK BY GETTY IMAGES; (WIND TURBINE, OPPOSITE PAGE) COURTESY OF VESTAS WIND SYSTEMS A/S



Vestas, the global wind energy company behind this turbine in Victoria, has supported community energy projects overseas.

*AN AUSTRALIAN ETHICAL INVESTED COMPANY