

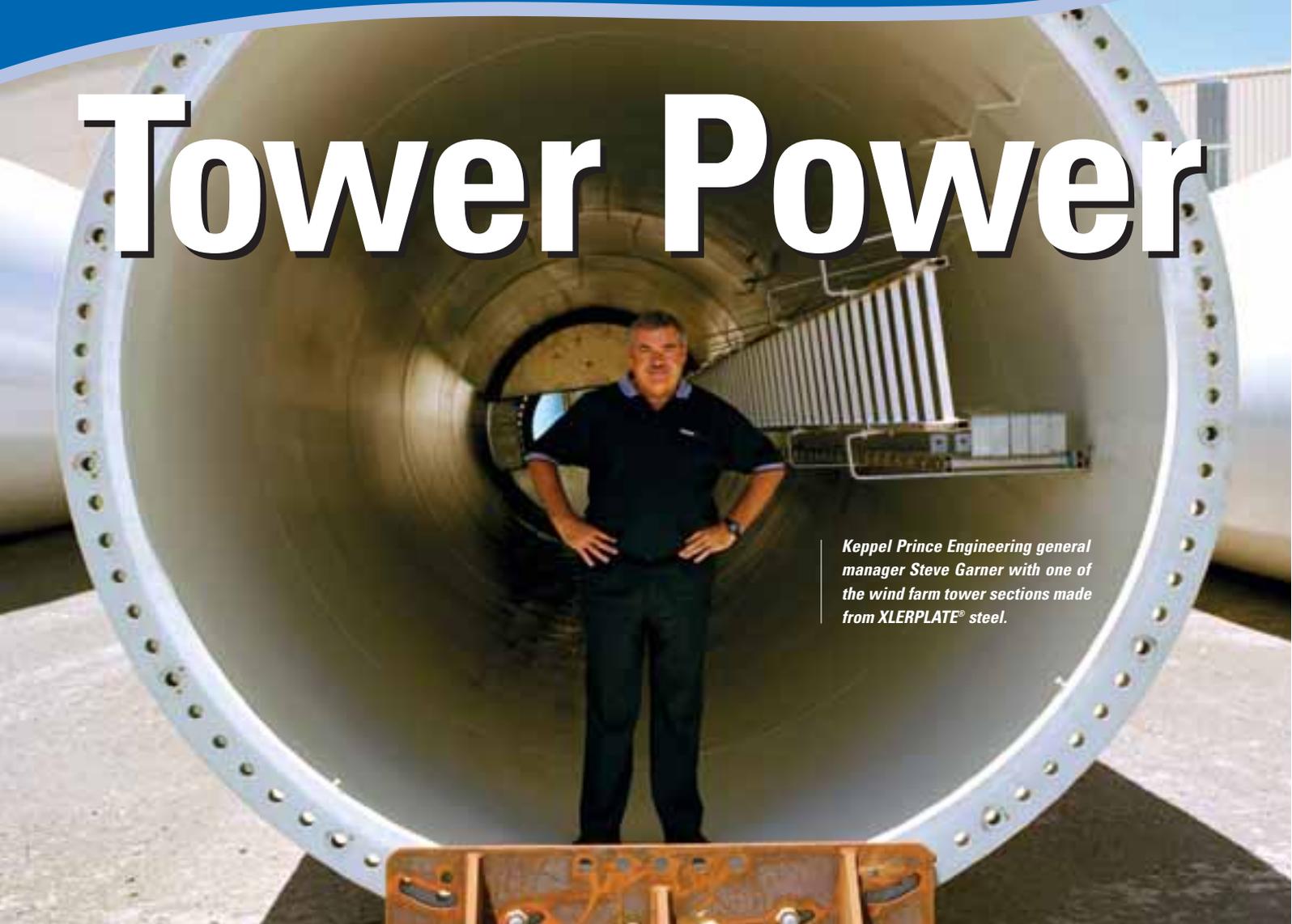
# STEEL EDGE

ISSUE NUMBER 12 | DECEMBER 2003

A newsletter of product innovation, corporate information and news for customers of BlueScope Steel Limited

PRINT POST APPROVED PP 255003/05589

# Tower Power



*Keppel Prince Engineering general manager Steve Garner with one of the wind farm tower sections made from XLERPLATE® steel.*

***XLERPLATE® steel from BlueScope Steel is at the heart of Australia's newest power generation industry.***

Victorian firm Keppel Prince Engineering has used its expertise in steel tower construction to win a key role in the rapidly growing wind power generation industry.

The company supplied and installed 35 towers made from XLERPLATE® steel for the \$76 million Challicum Hills wind farm which opened near Ararat on November 22.

It has tendered for fabrication of 120 towers at the much larger \$270 million Portland Wind Energy Project planned for a site near its own production facility in regional Victoria.

Both wind farms are operated by Pacific Hydro Limited which specialises in the generation of electricity from non-polluting wind and water.

Pacific Hydro is Australia's largest generator of wind energy and is developing more environmentally sensitive wind generation projects at sites around Australia.

Keppel Prince Engineering first won a wind tower fabrication contract in 2001 when it supplied 14 towers made from XLERPLATE® steel for the pioneering Codrington wind farm in Victoria.

Steve Garner, general manager of Keppel Prince Engineering comments: "The size of the fabrications and the tightness of construction timetables mean that the accurate and finely timed delivery of a precise set of XLERPLATE® steel plates for each tower is imperative.

"BlueScope Steel has been able to achieve a perfect delivery schedule into Smorgon Steel for them to strip plates and deliver them to us, on a just-in-time basis.

Simon Fieldsend, Sales Manager Victoria with BlueScope Steel, confirmed that close communication had been essential for BlueScope Steel to maintain a tight schedule, yet respond to rapid changes in project volumes.

Keppel Prince has used modified XLERPLATE® 350 grade steel in thicknesses from 12mm to 60mm to fabricate the 65 metre towers for the just opened Challicum Hills wind farm.

Each tower will provide 1.5 megawatts of clean energy into Victoria's main power grid.

XLERPLATE® steel will also feature in the fabrication of components for Keppel Prince's first wind power export order.

Two days after the opening of the Challicum Hills facility the company won an order to supply 55 tower "embed" sections for a new wind farm on New Zealand's north island.

## Top five spot for BlueScope Steel

BlueScope Steel has been ranked fifth in a list of 20 world-class steelmakers compiled by global analysts World Steel Dynamics.

It is the first time BlueScope Steel has been included in the top 20 list and ranks the company ahead of many of the world's major steelmakers.

Criteria on which the best performing companies are measured include profitability, operating costs, product quality, environment, safety and stock market performance.

Reviewing the company's performance at the recent annual general meeting, Managing Director and Chief Executive Officer Kirby Adams said it was a source of pride that the Australian/New Zealand steel industry, while small by global standards, was one of the better performing in the world.

He described the global steel marketplace as tough, with steel companies on other continents still making losses and filing for bankruptcy. But BlueScope Steel, he said, was "as fit as we have ever been, and enjoying the contest."

Customers have benefited from the company's improved performance over the first year of its public listing.

"Two years ago I reminded our employees... that only delighted and returning customers can provide them with employment security," Mr Adams said. "Well they listened, and they really got to work re-engaging with our customers. They have focused on becoming a far more customer responsive and market-driven company.

On-time delivery performance had risen to best-ever levels even with new market offers promising delivery to the day rather than the week.

A company-wide program of systematically measuring the cost of quality was making great strides in improving yield, eliminating rework and making prime product every time.

The company's commitment to business excellence had also delivered rigorous environmental management systems. In the first year as a public company all 50 operating sites achieved international environmental management ISO14001 accreditation.

Mr Adams described independence as "great for the company and its future."

"The demerger unleashed a terrific spirit of employee teamwork and 'can do' attitude right across our business," he said.

"We seized new market opportunities, put talented teams into place and drove business improvements across the company."

With wide blue horizons and new scope for renewal and growth, there was excitement and confidence about the company's future, he said.

# New batten tests hatch bright idea

*Collaboration by the BlueScope Lysaght Technology Centre and PV Solar Energy Pty Ltd has produced an innovative mounting system for the first solar tiles to be designed and made in Australia.*

PV Solar Energy Pty Ltd designs, supplies and installs photovoltaic (PV) solar energy systems and products.

It has supplied and installed solar tiles at the MIRVAC Newington Solar Village in Sydney, the Youth Hostels Australia Eco Hostel Halls Gap, Victoria and solar panels on Sydney Entertainment Centre, and many private homes.

The BlueScope Lysaght Technology Centre carried out cyclonic testing of the solar panel sections to assess their strength and durability in high winds.

It then worked with PV Solar Energy Pty Ltd to develop specially ventilated versions of LYSAGHT TOPSPAN 40® steel battens to mount the panels and to provide a significant increase in their efficiency.

PV Solar Energy managing director, Peter Erling explained: "The variation of the standard TOPSPAN 40® batten, which we have named PV

AIRFLOW is to provide perforations which allow air to move more easily through the roof behind the tiles.

"The increased air flow helps cool the solar cells, allowing them to maintain efficiency so that they produce more power.

"The perforations in the battens beneath the panels allow air to flow in, be heated and then rise, to draw in more cold air and create a convection flow.

"In summer you can let the hot air out through vents and in winter, you can have a fan in the roof which will push the warm air down through ducting into the building to heat the house. Trials have proven that it works very effectively.

"This is a great outcome for the consumer. It's free energy. The heat is generated from the sun on the tiles, and the fan is being driven by electricity from the solar tiles - it's all from the sun.

"This new perforated TOPSPAN 40® batten is a direct result of collaboration between PV Solar Tiles and BlueScope Lysaght's engineering team."

BlueScope Lysaght's flexibility and understanding in meeting his unique needs impressed Peter Erling.

*(continued on page 8)*



*BlueScope Steel structural engineer Steve Halpin (left) and PV Solar Energy managing director Peter Erling examine one of the PV Airflow battens tested at the BlueScope Steel Technology Centre at Chester Hill in Sydney.*



*Jamie Durie puts the finishing touches to his sculpture garden made with recycled steel.*

## Succulent steel

*A 16-metre long sculpture in Sydney's Royal Botanical Gardens is helping to promote steel recyclability.*

The sculpture, created by Australian television personality Jamie Durie and sponsored by BlueScope Steel and the Steel Can Recycling Council, hosts the botanical gardens' succulents display.

The equivalent of 500,000 recycled steel cans went into production of the steel for the sculpture which consists of garden beds created from curved sheets of XLERPLATE® WR350 steel.

The weathered effect demonstrated on the sculpture is achieved by special alloying elements which react with the air to form a dense tight oxide film to protect the steel from corrosion.

BlueScope Steel NSW Account Manager Alan Church, says "These steels are used unpainted to take architectural advantage of their structural and aesthetic qualities."

"Weathering steel is compatible with the environment. It complements its natural surroundings and is a durable and cost-effective construction material.

"The appearance, texture and maturity of the weathered steel's patina depend upon three primary natural factors - time, the degree of exposure and atmospheric environment.

"With time, the oxide coating changes from a rusty red-orange to a dark purple-brown."

"Atmospheric environment impacts on oxide development. Frequent wet-dry cycles - rain, wind and sun - promote the weathering process." Adds Jamie Durie: "Its an astounding steel.. you can get fantastic results.

"Centrepoint Tower in Sydney was also built with this steel. This demonstrates the steel's strength."

Weathering steels are used for applications including bridges, buildings, process equipment, shipping containers, as well as architectural applications such as Jamie Durie's sculpture.

He describes the garden as timeless in design. "The chosen materials will represent architecture in its best fashion for the longest period of time," he says.

"It is the pinnacle of my sculptural design. I've put my heart and soul into it.

"I wanted to use a product that was recyclable or recycled. Steel is 100 per cent recyclable. Packaging products made from steel, such as canned foods, aerosol cans, oil or paint cans, even pet food cans, are among the most recyclable products in the world.

"Currently we recycle 43 per cent of all steel packaging. However each year Australians throw away enough steel packaging to make five Sydney Harbour Bridges, so we really need to do more.

"By choosing to build with steel I made an ecologically sound choice for future generations. We can all do our bit towards a sustainable future."

# Another smart solution

*BlueScope Steel is spreading the benefits of its engineered steel framing system through Asia, with the supply of the first SMARTRUSS™ system in the Philippines.*

SMARTRUSS™ is a computer-designed, precision engineered, lightweight, steel roof truss solution designed specifically for the light construction industry in Asia.

Philippines developer Confed Properties, used the system to build 20 duplexes in its La Breeza housing project just north of Manila City.

BlueScope Steel Philippines President Mauro Cervantes said SMARTRUSS™ provided the customer with the best solution for the project.

SMARTRUSS™ is distributed through Asia by BlueScope Lysaght licensed fabricators.

Accutech Steel, which supplied this initial project, became interested in SMARTRUSS™ for the Philippine market after seeing the benefits at a trade show.

Following the success of the development, Accutech Steel signed a SMARTRUSS™ Fabricator Licensee Agreement with BlueScope Lysaght in Indonesia, where the product is manufactured.

Accutech Steel is planning to sell 2000 units in 2004.

"The SMARTRUSS™ system is easy to assemble and install and is backed by a BlueScope Steel warranty\*," Mr Cervantes said.

"It was cut-to-size, assembled and installed at site in 12 hours - in other words in just one and a half days.

"The result, a successful partnership that is set to blossom, with Confed Properties showing interest to make further use of the SMARTRUSS™ system in future housing projects."

\*Warranty is subject to terms and conditions.

For further information:  
[www.bluescopesteelasia.com](http://www.bluescopesteelasia.com)



# Smartest roofs in the village

*Colourful steel roofing is a key feature of new energy-efficient homes in Melbourne's first HIA GreenSmart Display Village, pictured, at Point Cook, 40 minutes from the city centre.*

Estate developer Peet & Company Ltd is offering a \$5000 incentive for all houses built in the estate that achieve a 4-star energy rating or better.

Each display home in the HIA GreenSmart village achieved a 5-star energy rating.

Six of Melbourne's leading homebuilders utilised the energy efficient advantages of roofing made from COLORBOND® steel for their display homes.

All display homes are designed to improve energy and water efficiency, enable home owners to waste less and recycle more, reduce waste from the building process and improve site management during construction.

The benefits for owners include lower energy and water bills, a warmer house in winter, a cooler house in summer and better soil for beautiful gardens.

GreenSmart is an initiative of the HIA designed to educate builders, designers, product manufacturers and consumers about the

benefits of affordable and environmentally responsible housing.

All of the 5-star energy rating houses in the HIA GreenSmart Village feature water-saving measures, such as low water-use gardens and rainwater tanks made from AQUAPLATE® steel.

AQUAPLATE® steel has a tough, food grade polymer skin bonded to a long-life corrosion-resistant steel base, providing safe storage of water for human consumption.

Tank makers have adapted their designs to make them more compatible with the urban landscape, with a range of shapes and sizes including free-standing slimline designs which fit under the eaves of most houses.

Fencing made from COLORBOND® steel in the colour Grey Ridge® features exclusively throughout the GreenSmart Display Village and the estate.

**For Further Information Please Contact:**

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**Level 2, 470 St Kilda Rd**  
**Melbourne 3000**  
**Ph: (03) 9868 5900**  
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# Steel bridges a century

*The latest steel technology has been used to replicate an historic bridge.*

The Walton Bridge, which crosses Enoggera Creek in the Brisbane suburb of The Gap, was officially opened in April 1900 to serve the growing traffic of Brisbane.

Now, 103 years later, a replica bridge has been built on the southern side of the existing heritage-listed arch bridge.

The new bridge substructure was constructed from 400 grade XLERPLATE® steel to provide maximum strength, cost effective construction and ease of fabrication and welding.

The single arch design has footings placed outside the creek bed, eliminating the environmental impact that would have resulted from driving footings into the bed.

The use of XLERPLATE® steel for the new bridge substructure allowed the creation of a design which does not obstruct views of the original bridge's impressive federation architecture.

The twin supporting arches of the existing bridge are clearly visible and the new bridge maintains the same design cues as its historic twin.

The new \$1.5 million bridge was designed as part of Brisbane City Council's (BCC) Waterworks Road Transit Lane Project, an integral part of BCC's Integrated Transport Strategy aimed at encouraging the use of public transport by making it more efficient, convenient and accessible.

Brisbane-based Emersteel prefabricated all of the steelwork for the bridge, which company principal Nigel Emerson said had been both a challenging and rewarding project.

During design, careful attention was paid to accurate identification of the dimensions of the prefabricated steel work to ensure each of the steel columns would fit exactly into the cast in situ footings and headstocks.

"This meant we had to use the best quality steel for the job we could, which is why we opted for XLERPLATE® from BlueScope Steel," said Mr Emerson.

"It is dimensionally accurate and doesn't warp or distort during welding when guidelines provided by BlueScope Steel are followed."

Emersteel used more than 150 tonnes of 400 grade XLERPLATE® in the construction of the structure.

"The end result is a new structure which not only meets its functional objectives, but does so while helping to preserve and enhance the heritage significance of the 103 year-old Walton Bridge," said Mr Emerson.

# Port expands with strong partners

*Two local steel fabricators have combined to meet a tight supply deadline for the latest expansion of the Port of Brisbane, Australia's third busiest container port.*

The Port of Brisbane Corporation is building a new complex at Fisherman Island's Wharf 9 at the mouth of the Brisbane River.

The new facility is almost 320 metres long and will be capable of berthing large container vessels up to 70,000 dwt.

The Port selected Brisbane-based Rollpress, part of the Rollpress Proplate Group, to supply hundreds of steel pile casings, but with a tight contract period of 18 weeks Rollpress opted to share production with local manufacturer Major Metals Queensland.

"Because of the short lead time involved, and the fact that we had other jobs in progress, we decided it would be best if work proceeded on two fronts," explained Rollpress Pipe Division Manager, Richard Kearns.

"Working with Major Metals as a subcontractor, we managed to complete the project on time and to the satisfaction of the Port of Brisbane Corporation."

Rollpress and Major Metals used around 3000 tonnes of 250 grade XLERPLATE® hot rolled steel in fabricating the piles.

Developed by BlueScope Steel, XLERPLATE®



*Above and below: Fabrication and finishing of the pile casings made from XLERPLATE® steel for the Port of Brisbane expansion project.*

steel offers customers a flexible steel plate solution suitable for structural, pressure vessel and heat treatable applications.

BlueScope Steel provided a staged delivery schedule to ensure both fabricators received delivery for the project on a 'just-in-time' basis.

"BlueScope Steel's service throughout the contract period was faultless," Mr Kearns said. "Every single shipment of steel arrived when it was supposed to and we did not encounter a single quality problem over the course of the job."

"In fact, BlueScope Steel's assistance and impressive service were a major factor in helping us to meet such a challenging deadline."

The pile casings, which vary in diameter from 900-1200mm and are up to 18m long, were made from 12mm and 16mm thick 250 grade XLERPLATE® steel.

All of the piles were subjected to a comprehensive non-destructive ultrasonic testing program to ensure they met the

Port of Brisbane Corporation's stringent quality standards.

Rollpress and Major Metals together supplied 554 pile casings to the Port of Brisbane Corporation.

The Port of Brisbane Corporation also awarded a separate contract to Tyco Water Brisbane for the supply and delivery of approximately 200 spirally formed and welded piles for the Wharf 9 project.

Around 1000 tonnes of 12mm thick grade 250 XLERCOIL® steel was supplied by BlueScope Steel for this part of the project. The spirally manufactured 900mm and 1050mm OD piles manufactured at Tyco Water's Wacol QLD plant were able to be produced as continuous 18m lengths. Cutting shoes, made from 32mm thick XLERPLATE® were also fitted to the leading edge of many of these piles. The spiral piles were completed well in advance of the required date.

Tyco Water's ability to meet stringent tolerances and quality standards is well proven, as Tyco Water has a long and successful history of spiral pile supply contracts using XLERCOIL® to the Port of Brisbane Corporation as well as many other ports and in Queensland, the Northern Territory and the Pacific region.

**For further information, visit [www.xlerplate.com.au](http://www.xlerplate.com.au)**



# Paul sees a future of opportunity

*When you look at the world through a blue scope you see plenty of fresh opportunities.*

That's the view of American Paul Zuckerman, pictured, who has just moved to Australia to take a leadership role in BlueScope Steel's marketing team.

Reflecting the forward-looking theme of the company's recent successful advertising campaign to launch the BlueScope Steel name, he says: "We look at the relationship with our customers not only in terms of what their needs are today, but where they are headed...we're saying to them, "We understand what you are doing today, and understand your needs, but what about tomorrow, where do you want to go as a business...how do we help you grow?"

It's a sentiment epitomising BlueScope Steel's new direction as a company that offers its customers innovative solutions in steel – and Paul is convinced there are limitless opportunities for expanding the use of steel in Australia.

"As the use of steel continues to grow, the business and our customers all win," he says.

As Vice President Marketing & Business Development Paul is responsible for formulating and communicating strategies for the company's business in Australian building & manufacturing markets, which cover the building, automotive and manufacturing sectors.

He is a former Plant Manager and President of BHP Coated Steel USA. Previously he spent eight years with PPG Industries in a number of product and market development roles focused on the prepainted, automotive, building and appliance markets.

Paul holds a degree in chemistry & chemical engineering as well as a masters degree in marketing.

His new appointment follows a restructure that clarifies and focuses the roles of both the sales and marketing teams with customers.

The result is a market focused organisation looking to provide high levels of customer satisfaction and generate increased demand for coated steel products.

"The distinction between sales and marketing allows sales to focus on the needs of the customer, be highly customer responsive and deliver a value proposition by looking at the day-to-day needs of our customers," Paul says.

"The marketing team promotes the benefits of steel to the marketplace over other materials in a given market sector, thus increasing demand for our customers' products and creating increased demand for steel generally."

The team is charged with the task of identifying trends, uncovering innovation opportunities and adding value, both at a customer level and across the entire marketplace.

Paul uses the example of the launch of the expanded COLORBOND® steel colour range earlier



this year to show how BlueScope Steel is identifying such opportunities.

"The colour launch was an example of responding to the needs of our customers, reinvigorating colour choices, enhancing the product and making it newer for longer," he says.

"It's not just the new colours – it's real product quality and continuous improvement in terms of the performance of our products – listening to the needs of the market place and our customers."

Paul brings a fresh eye to the marketing team and sees a wealth of opportunities for expanding the use of steel in the marketplace.

"Coming from another marketplace, I have seen many different steel applications not

represented in Australia, and vice versa. Take steel roofing and fencing as an example – here COLORBOND® steel is widely used and recognised as a superior product in the building market. This success story is now being emulated in other parts of the world," he explains.

"Conversely, steel decking in commercial and industrial buildings has quite a large market share in other geographic regions and a much lower share here in Australia. There seem to be many opportunities for the market to grow.

"We want to learn where our customers see the best opportunities, and how we can work with them to turn those opportunities into reality.

This will ultimately drive the successful penetration

of steel into areas where it is not as widely used today."

Paul hopes that the increased customer focus of BlueScope Steel's sales and marketing teams will be reflected in the company's quarterly customer monitor surveys.

The independent surveys ask customers to rate BlueScope Steel on a series of issues, including product quality, delivery performance and service. And while the responses have been mainly positive, Paul has even higher goals for these surveys.

"We have been conducting these modified surveys for over 18 months and see them as an indication to our customers and to the marketplace that we do value their opinion and that we are a

**"The colour launch was an example of responding to the needs of our customers, reinvigorating colour choices, enhancing the product and making it newer for longer,"**

highly responsive supplier looking to add value to their business," he explains.

"The customer results show we have done a good job, but that maybe there is room for improvement in terms of being a highly customer-focused and highly valued supplier.

"One of the things I would hope we do is to add enough value to our customers' businesses so that we actually see a significant rise in the satisfaction results in these surveys.

"I'd like to see the rise reach a point where the third party who conducts these surveys would begin to use BlueScope Steel as an example of a company that is highly rated in customer service and customer focus. In effect, for us to become a benchmark, for other businesses to emulate. This would be great recognition for us and for all the individuals within our company who are working hard, every day, to make us a success in the eyes of our customers, our shareholders and the communities in which we operate."

# BCA as easy as ABC

*Building industry professionals are managing compliance with new mandatory energy efficiency requirements by using an online software program developed by BlueScope Steel.*

The national BCA code was announced by the Australian Building Codes Board (ABCB) on 1 January, 2003. It becomes mandatory in state and territory jurisdictions when adopted into local legislation.

Queensland, Tasmania, South Australia, Western Australia and the Northern Territory have all adopted the energy-efficient regulations in their respective states.

The initiative to implement energy efficiency standards for residential buildings is designed to reduce building sector energy consumption and greenhouse gas emissions, which account for nearly 20 percent of Australia's greenhouse gas emissions.

Energy efficient homes will also deliver cost savings to consumers through reduced electricity and gas bills.

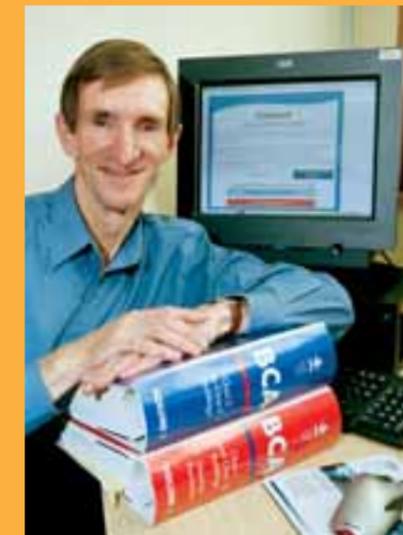
The energy efficiency requirements within the Housing Provisions of the BCA outline a range of performance requirements and also include approved energy-efficient solutions covering insulation for walls, ceilings and floors.

They cover improved glazing and shading, draught control, making use of air movement for cooling, and the reduction of energy waste in services.

The COLORBOND® steel Energy Efficiency Design Guide software developed by BlueScope Steel can simplify compliance with the new BCA requirements.

The program - which can be downloaded free from the COLORBOND® steel website ([www.colorbond.com](http://www.colorbond.com)) - guides users through the BCA regulations.

A series of prompts and drop-down boxes allows users to navigate step-by-step through the



program to gain details of building regulations in place under the code for specific building types and locations. The software also offers printouts of results and calculations.

BlueScope Steel Research Associate Graeme Stark, pictured, who headed the team developing the software, said the tool would make it easier to understand and adhere to the new BCA energy efficiency regulations as they come into effect.

"Any new regulation or new requirement introduces a new pressure on builders and specifiers," Mr Stark said.

"Our aim was to make the task of complying with the regulations as easy and seamless as possible, creating software that was easily available – via our website – to guide users through the process of the BCA."

For more information, or to download the COLORBOND® steel Energy Efficiency Design Guide, visit [www.colorbond.com](http://www.colorbond.com)

# Kirby Adams elected Chairman of IISI

*Managing Director & CEO Kirby Adams was recently elected Chairman of the world steel industry peak body - the International Iron and Steel Institute - at its annual general meeting in Chicago.*

Kirby, at 47, is the youngest ever Chairman of the IISI in the organisation's 36-year history. He is the first Australian elected to the position since Brian Loton in 1991.

Chairman Graham Krahe said: "Kirby's election as IISI Chairman reflects the strong regard in which he is held by his international peers and the significant contribution he has made in the global steel arena in the three and a half years he has been CEO."

Kirby has been a member of the IISI's Executive Committee since 2000 and for the past year has been a Vice-Chairman of the organisation.

The IISI is based in Brussels, Belgium, and was founded in 1967. It was the first international

association dealing solely with one industry. The 50 countries in which IISI steel-producing member companies are located produce over 75 per cent of total world steel production. Nearly all of the world's major steel producers are members of the Institute. Included are both publicly and privately owned enterprises using the basic oxygen or electric arc process routes.

In recent years, the IISI has had a major focus on sustainable development in the world steel industry.

At the recent IISI conference in Chicago, Kirby led a safety seminar for representatives of the world's major steel companies, joined by President Industrial Markets Lance Hockridge and Vice President Manufacturing at BlueScope Steel (Malaysia) Hanim AbuBakar. The discussion focused on the importance of leadership in ensuring a good safety performance.

# Deckform<sup>®</sup> steel's billion dollar function

*The multinational Westfield Group is harnessing steel building technology to create a \$1 billion shopping and entertainment complex at Bondi Junction in Sydney's eastern suburbs.*

The landmark project consolidates three existing retail sites to establish a 104,000 square metre venue, pictured.

Westfield is bringing its global resources to bear on every facet of the mega project - from the design through to the building technology and high-grade finishes, which will create a truly world class shopping centre.

To complete the project structure within the desired timeframe Westfield fine tuned their construction system and adopted permanent steel formwork made from DECKFORM<sup>®</sup> steel. The system delivers significant time and material handling savings.

Permanent steel formwork made from DECKFORM<sup>®</sup> steel has amassed a formidable reputation over conventional formwork systems for economy, speed and safety for more than 20 years because it does not need to be removed after the concrete cures.

The post tensioned band beam and concrete slab design used on the new shopping centre incorporates nearly 150,000 square metres of Stramit Condeck HP steel formwork made from DECKFORM<sup>®</sup> steel.

Westfield structural engineers MPN Group used the system based on the previous success of Stramit Condeck HP permanent steel formwork on a number

of Westfield Shopping Centres in Victoria.

Mr George Perl from MPN said cost efficiencies and associated benefits delivered by the permanent formwork convinced Westfield to incorporate Stramit Condeck HP decking in both the carpark and retail slab on the new structure at Bondi.

"Westfield often uses post stressed concrete floors comprising band beam and slabs for their shopping centres as it provides the most cost-effective structure," said Mr Perl.

"The post tensioning system is not only quick but also minimises material content, with the least amount of concrete, the least amount of post tensioning and by far the least amount of reinforcement.

"Using Stramit Condeck HP decking made from DECKFORM<sup>®</sup> steel as slab formwork has significantly reduced material handling and waste on the Bondi project.

"Stramit Condeck HP permanent steel formwork on the slabs also delivers cost savings in the final clean-up at the end of building work - another key reason for the system's specification."



Formwork contractors Dolso & Wideform are installing the permanent steel formwork as slab formwork while using conventional formwork for the band beams. Sydney post-tensioning specialist Austress Freyssinet Pty Ltd are responsible for the post-tensioned system used at Westfield Bondi Junction.

The redeveloped Westfield Bondi Junction Centre will open in December 2004. It will include two major department stores, three large supermarkets, 11-cinemas, cafes and restaurants, more than 300 speciality stores and 3300 car spaces.

**For further information**  
**BlueScope Steel Direct 1800 800 789**  
[www.bluescope.steel.com.au](http://www.bluescope.steel.com.au)  
[www.stramit.com.au](http://www.stramit.com.au)



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Steel Edge #12 DECEMBER 2003



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## New batten tests hatch bright idea

*(continued from page 2)*

"They were willing to try something new by making this perforated TOPSPAN 40<sup>®</sup> batten for us. They were very co-operative, especially as we didn't really know how big our market was going to be.

"With the growth in wind energy happening now, PV in buildings is probably the next wave for very good reasons.

"BlueScope Lysaght understood where we are coming from and what we are trying to achieve. They see sustainability as something they want to be involved in and have shown a lot of support and interest in our business."

BlueScope Lysaght's Technology Centre at Chester Hill in New South Wales has a permanent focus on innovative steel building products.

"Our test rigs and research facilities are in

*A tradesman installs solar tiles on perforated LYSAGHT TOPSPAN 40<sup>®</sup> battens.*



constant demand," commented Technology Centre structural engineer Steve Halpin.

"This is where innovative products developed within BlueScope Steel and others brought to us by our customers undergo testing that can turn a good idea into a marketable product."

**For further information call Steel Direct on 1800 641 417. For more information on PV Solar Tiles visit [www.pvsolartiles.com](http://www.pvsolartiles.com)**