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Green money savers: a bright option

As resource prices rise and community concerns about climate change skyrocket, the question of how to reduce the environmental impact of buildings by reducing energy, water and waste, has become a pressing technological and management issue.

One Australian company, EP&T Global, has spent over 15 years researching and developing unique systems to both measure and manage resource use in buildings.

“We assist businesses by providing energy and water management solutions that save money, help them meet their environmental targets and create a more sustainable future,” company founder and CEO Keith Gunaratne said. EP&T Global offers a combination of innovative

technologies and services to clients in the property trust, government and retail sectors.

With equipment installed at over 500 sites across Australia, in the past year, EP&T Global has saved its customers more than \$10 million in electricity, gas and water costs. “At the same time, we’ve also reduced our customers’ greenhouse gas emissions by more than 60,000 tonnes and saved 500 million

litres of water,” Keith said. Keith further explains, “We can then provide several technologies, over 30 to select from or simply management advice that can assist clients. Without such systems of ongoing monitoring and support, it is almost impossible to optimise the management of a building. As for any effective or resilient system, constant feedback is vital.”

The EP&T Global team consists of dedicated engineers covering the electrical, electronics, software, mechanical, mechatronics, automation, environmental, process and chemical fields, as well as professional business and finance managers.

The company is based in Sydney and employs 40 engineers. Together they have been able to design and manufacture products in Australia “at competitive prices and the company is committed to keeping its R&D and manufacturing operations in Australia while developing an export market for EP&T’s products”.

Keith said the Australian Government’s R&D Tax Concession had helped the company grow since it launched in 1993. The R&D Tax Concession allows companies to deduct 125 per cent of their research and development expenditure when lodging their tax returns. Companies need to register their activities with AusIndustry each year to claim an R&D Tax Concession.

“When we started out it was just two people, and receiving the concession helped us employ a third and then a fourth person.

“Every dollar in the concession is very valuable when you’re small,” Keith said.

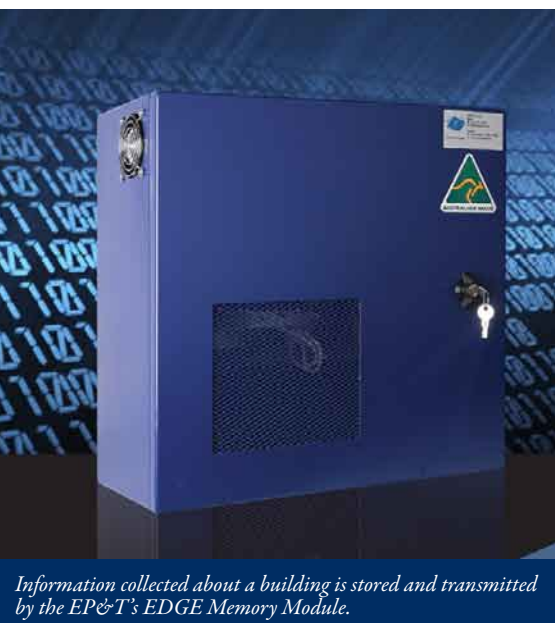
“We squeezed the efficiency out, and every dollar has helped us invest more in our product to build one of the most advanced monitoring technologies in the world.

“The concession is fantastic; it’s practical and easy to manage. There’s hardly any red tape and that means it’s not costly to administer.”

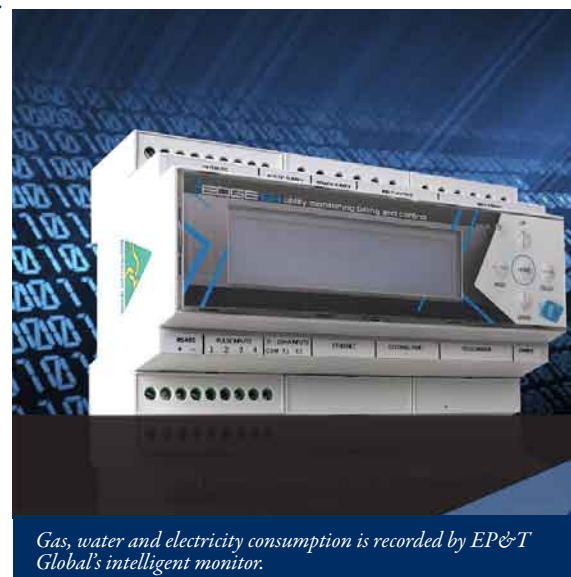
One of the most satisfying parts of his job was seeing his technology become widely accepted in the market. “It started when one of Australia’s major commercial property owners adopted our technology. They saved so much money that now most of Australia’s major owners use our system,” Keith explained.

“Now in the Australian property sector we’ve seen a real market transformation. The owners are making big savings on their utilities by cutting their operating costs,” he said. EP&T is now expanding internationally.

Keith concludes by saying that “We are hoping to replicate our experience in Australia where we saved money for businesses, created jobs and helped mitigate climate change for our children and grandchildren.”



Information collected about a building is stored and transmitted by the EP&T’s EDGE Memory Module.



Gas, water and electricity consumption is recorded by EP&T Global’s intelligent monitor.

litres of water,” Keith said.

“The systems we have developed include hardware, firmware and software to provide end-to-end energy, water, waste and renewable energy solutions for property owners.”

One of the systems, the EDGE Intelligent System®, is an intelligent electricity, gas, water and waste sub-metering, monitoring, billing and reporting system. The system can measure a variety of electrical parameters as well as gas and water consumption and waste creation.

“We combine this accurate live data (from the sub-meters) with the powerful algorithms and intelligence we have built up over the years,” Keith explains.

“Without the EP&T system, an engineer could spend more than 150 hours a month to accurately understand how utilities are used in a large building.”

“Using our system, it only takes an engineer five hours a month to do the same work” Keith said. “As a result, our clients can be much more efficient and effective in working out how to reduce energy and water use and minimise waste in their building.

“We not only provide the information which, for example, they can use in their internal and external greenhouse gas reporting, but we provide recommendations for cost effective ways they can improve their building performance”, he said.