

Mixed Greens: Energy savings for SMEs

By Sophie Vorrath on 28 March 2012

Low Carbon Australia – a federal government-backed advisor on energy efficiency and carbon management solutions – has joined forces with ASX-listed FlexiGroup to provide energy efficiency upgrades for Australian small business. The joint initiative financing package, Energy Smart Finance, will offer lease finance of up to \$100,000 to commercial and industrial SMEs to help them upgrade their businesses to the latest energy efficiency technology, such as: energy efficient lighting and lighting controls; energy efficient upgrades to heating, ventilation and air-conditioning systems; voltage regulation devices and power factor correction equipment; building management system optimisation and replacement; real time energy and water monitoring for buildings; refrigeration; boilers; and compressed air technologies. The companies say that the leasing arrangement allows SMEs to convert the expense of upgrading to new equipment into a monthly “cost of doing business,” allowing them to save cash flow for other operating purposes.

Low Carbon Australia CEO Meg McDonald said today that the project was meeting a growing need among business and industry to head off rising electricity prices in order to remain competitive in the low-carbon economy. FlexiGroup managing director and CEO John DeLano agrees, saying that the initiative is consistent with his company’s strategy of targeting new high-growth market segments, such as it has been doing in the solar sector through Certegy. “The overwhelming feedback from both our solar energy consumers and the 200-plus larger solar retailers we service, is that the consumer demand for solar energy is driven by the ongoing escalation of energy prices,” DeLano said. “We expect to see the same driving force with Low Carbon Australia as small businesses increasingly seek solutions to reduce their energy costs, which are becoming a growing burden on their bottom line.”

SunPower producing super-efficient cell

Silicon Valley-based US solar manufacturer SunPower has this week begun commercial production of its new solar cell with world-record breaking conversion efficiency. Measuring just 160mm in size, SunPower’s third generation Maxeon solar cell offers efficiencies of up to 24 per cent, which means it produces more energy per square meter when compared to conventional crystalline solar cells. It has low reverse-bias breakdown voltage to deliver better performance in shady and dusty conditions, and better temperature coefficient for increased energy harvest in hot environments. SunPower says it also offers improved aesthetics “with a consistent, homogenous, sleek black look.” The cells are being integrated into select SunPower

solar panels that deliver efficiencies exceeding 20 percent. These panels contain up to 128 solar cells per panel and will be availability in limited quantities in 2012.

Behind bars, off the grid

California, already ahead of the low-carbon game on a great many fronts, is about to get another green boost, with the announcement on Tuesday of the completion of a massive new smart grid project, headed up by Chevron Energy Solutions in conjunction with Alameda County, which the latter hopes could help save it thousands of dollars each year. The project has involved the implementation of a microgrid – an entirely separate electrical system – to supply power to the county’s Santa Rita Jail, one of the largest jails in the US. Under normal circumstances, the prison draws its power from the region’s utility company, but the addition of the microgrid means it can sever this connection during an outage, instead relying on renewable energy systems and stored energy. The battery system that normally draws from these renewable sources can also store energy from the grid when prices are at their lowest. The Santa Rita project is the largest demonstration of this application of smart grid technology, involving 3MW of power demand. Robert Weisenmiller, chair of the California Energy Commission, has described the project as “a major step forward in transforming California’s energy grid and making a cleaner energy future possible.”