

Customers are embracing EGO battery-powered equipment not only for its convenience, but also because of innovations like POWERLOAD™ line feeding technology in line trimmers.



only has the company rolled out some exciting new electric equipment, most recently with its Victa 18v Li-Ion range (lawn mower, blower, line trimmer, hedge trimmer, and accessories), but it has also become the exclusive Australian distributor of Shindaiwa and Echo products, both of which feature healthy battery-powered ranges.

“At Briggs & Stratton we pride ourselves as being the ‘provider of power’, whether this is petrol, battery or leading the way for the next technology,” Leesa added.

Other companies such as EGO have opted to place all their resources into battery-powered technology. Jason Ellis, Marketing Manager, Chervon Australia, which owns the EGO brand, says EGO has increased business year-on-year by offering an expansive range of 56v equipment, all of which is operable from a single battery platform. With 80 per cent domestic customers and 20 per cent trade, Jason says the market for electric equipment in Australia is maturing rapidly.

“Over the last four years in Australia, we’ve seen the number of brands with equipment over 36v go from four to 10 players,” he said, estimating the local OPE market to be worth approximately \$300m annually.

While petrol-based equipment sales overall still represent 50–60 per cent of the market, Jason notes that customer surveys demonstrate a strong preference for future electric acquisitions. “Our DIY market research shows that while 50 per cent of owners currently have petrol-powered products, only 40 per cent say they would look at petrol when asked what they would buy next.”

The biggest loser in the equation, Jason says, is the corded product sector, which has fallen away dramatically. Bestsellers in the EGO range are mowers and blowers; and Jason says customers are fixated with the idea of a single battery platform to run the entire range of products.

“The question we are constantly asked is: Does your EGO battery fit all your tools?” Jason said. This may be surprising, particularly with regard to larger acquisitions where the convenience of a unique battery pack might be subordinate to raw performance, but Jason insists that a single platform is necessary for success. Meanwhile, flexibility is maintained by offering 56v batteries with different amp hour levels, as well as the option of handheld- or backpack-mounted battery systems. In this fashion, a single charger can accommodate different battery styles and divergent end user applications.

What are customers looking for? Jason says there are three primary considerations: running time, charge time, and power. “If you can hit those three, then you will get people moving from petrol to cordless,” he said.

Other factors shaping customer demand in favour of electric tools, he notes, include:

- o Reduced noise
- o Elimination of fumes
- o No need to buy petrol
- o No need to store petrol
- o Lower maintenance costs.

More specifically in relation to EGO ranges, Jason adds that features like new-generation lightweight carbon shafts, fresh ergonomic design, as well as innovations like the company’s new POWERLOAD™ line feeder technology for line trimmers, are also contributing to healthy sales. Battery construction is an equally important selling point, as quality cells and top-class fabrication and design can have a big influence on performance.

“We use Samsung cells, like all the quality suppliers, but it’s what we do with them that matters – we have a phase change material around cells to take heat away because the biggest killer of all batteries is heat; plus, we have a special arc shape to give it more airflow to keep it cool. Also, our batteries sit on the outside of the tool for more airflow, and we use a robust construction to prevent damage from drops and knocks.”

Such features are gaining the attention of more and more commercial operators, who are seeking to minimize social impacts while offering premium services. Examples of firms that have shown interest in electric equipment, Jason says, include Jim’s Mowing and VIP. “These sorts of companies are coming to us (and other brands as well) and starting to move to cordless. They want continuity of supply, constant innovation, they want to know there is a servicing network, and that tools are covered by a warranty. We offer all that.”

At this stage, some readers will be digging in their heels and declaring fixedly that battery-based machinery will never outperform petrol-powered units. Jason invites these Doubting Thomases to visit a dealer and check out new-era equipment with an open mind, as technologies have improved dramatically in recent years.

RECYCLING POWERS AHEAD

Perhaps the strongest sign of mainstream Li-Ion acceptance in Australia is the growth of support industries in the supply chain, the most important of which is recycling. Not only can such industries corroborate information from manufacturers about market directions, but they can also reinforce marketing messages from fresh angles.

Envirostream Australia, Australia’s first and only lithium battery processor, was established recently in response to growing demand for local recycling services. Whereas other recycling companies send waste materials offshore, Envirostream recycles waste at its own plant in New Gisborne, Victoria.

John Polhill, Envirostream’s National Development Manager, says the business has formal agreements with numerous OPE companies, and can process Li-Ion waste batteries of all shapes and sizes.

“We currently see brands like DeWalt, Milwaukee, Ryobi, Makita, Black and Decker and many, many more come through our collection network,” John said, “and we are working closely with Milwaukee, for instance, to take a leadership role in increasing the diversion of power tool and OPE batteries from landfill.”

John says Li-Ion battery recycling is seen as a vital element of business growth in the OPE domain, as both manufacturers and end users are increasingly concerned about end-to-end product life.

Envirostream recycles approximately 95 per cent of all waste material. “Our processing equipment mechanically and pneumatically extracts the copper, aluminium and steel, which are sold on national markets,” John explained. “A mixed metal compound is exported to our partner company in South Korea to be used as an



Envirostream Australia, based in Victoria, is the only recycling company in Australia to process Li-Ion battery waste. Pictured is company CEO Andrew Mackenzie.

input material in the production of new batteries. The remaining waste material (approximately 5 per cent) is comprised of mixed plastics. We are currently working on some R&D projects with CSIRO and selected universities to further use this plastic material.”

John says all metals and electronic materials are traded through Envirostream’s sister company PF Metals, which has been operating for two decades in the national and international metal recycling and trading sector. Crucially, he adds, the entire Envirostream recycling channel is designed to be affordable for OPE companies.

“Using Envirostream’s material recovery technology here in Australia, we can produce materials that are used back in the manufacturing sector, and indeed the battery manufacturing sector. This offsets the traditionally high offshore recycling costs to zero, so the only cost for power equipment companies is transport, which we arrange like a reverse logistics model to ensure costs are kept as low as possible.”

John says Australia has been slow to enter the lithium battery recycling age: only 5 per cent of L-Ion batteries are recycled, with the rest going to landfill. Australia currently produces about 3,500 tonnes of lithium battery waste per annum, and John says that figure is expected to rise to 137,000 tonnes by 2035. However, recycling practices are maturing quickly.

“We are seeing a huge growth in power tool and outdoor equipment manufacturers taking a leading role in becoming more responsible for the fate of their batteries at end-of-life, as their products shift to a lithium-based power source,” he concluded.

BEYOND PERFORMANCE

It may be tempting to assess the future appeal of Li-Ion technologies in the OPE sector as a simple ‘competition’ between petrol and battery power. This would be a mistake. The ascendancy of electric OPE will have more to do with the decline of petrol than with the escalating performance of electric power (even though electric tool performance is improving at breakneck speed). Put simply, electricity will win not because of superior performance, but because petrol will fail.

Battery power, as a concept, is becoming more familiar to society in general due to advances in technologies servicing apex industries, specifically Automotive, Defense, Computers, Telephony, etc. The world’s greatest research scientists do NOT lie awake at night thinking of Li-Ion applications for blowers and line trimmers; they are inspired by much larger challenges regarding efficient transportation, civic electricity supply, as well as the reduction (or eradication) of harmful

emissions. Innovations in these apex sectors will flow down to the OPE sector over time, in tandem with social pressures endorsing cheaper, cleaner and more efficient energy outcomes. Renewable energy is already cheaper to produce than fossil fuels in Australia; indeed, in the absence of any political framework for the adoption of renewable energy, we rely on pricing as the only mechanism for purchasing renewable energy, as regulated by the Australian Energy Market Operator (AEMO). Coal-based power generation is frequently priced according to negative bids, meaning providers PAY for the right to deliver coal-generated electricity to the grid (in the hope of grasping higher returns later in the day). Meantime, homeowners worldwide are actively embracing renewable energy at a domestic and municipal level, and becoming increasingly familiar with electricity and battery technologies in the process. This knowledge will inevitably erode the skepticism and mystique surrounding electricity as a reliable energy source, not only in relation to home energy, but also regarding the operation of vehicles and other powered devices including OPE.

Every advance in the use of electricity represents a step backwards for petrol, and vice versa. It is worth noting that petrol is only affordable due to its immense scale. However, if global demand for petrol falters, particularly in the automotive sector, then prices must rise accordingly because of the incredibly high overhead costs of mining, refining, hauling, storing and distributing petrol. Consider the following:

- o Volvo has announced that it will produce only electric or hybrid vehicles, starting this year.¹
- o Airbus, Rolls-Royce and Siemens have formed a partnership to research hybrid and electric aircraft engines.²
- o Land Rover will release a fully electric vehicle in Australia in the near future.³
- o The city of Paris has issued contracts for the delivery of 1,000 electric buses; and recently the German company Flixbus started its first long-haul electric bus service between Paris and Amiens.⁴
- o Paris will ban all petrol and diesel cars by 2030.⁵
- o France will ban all petrol and diesel cars by 2040.⁶
- o Oxford will ban all non-electric vehicles from its centre from 2020.⁷
- o Rome will ban diesel cars from 2024.⁸
- o More than 45% of all vehicles in Norway are electric.⁹
- o Bloomberg reports the number of electric buses used globally is tipped to exceed 1.2 million (i.e. half the world’s fleet) by 2025.¹⁰

These kinds of pressures represent a one-way ticket to nowhere for petrol over coming generations. Petrol will only become more expensive, exotic and morally objectionable as market share is ceded to electrically powered products. Of course, Australia is not Sweden or France, but in light of our near-complete dependence on overseas suppliers for our manufactured goods – including the bulk of our OPE – we will inevitably take what we are given... and that means electrically powered equipment.

Even if heavier equipment powered by batteries lags in performance behind petrol-powered counterparts, the market will still accept electric alternatives due to cheaper running costs, convenience, quieter operation, as well as environmental considerations, all of which will overwhelm traditional methods of measuring equipment performance.

It won’t happen overnight, but the world is on a rollercoaster towards alternative energy sources, and the rollercoaster is electric.