

End user

Lead battery industry recharges

Innovation in lead battery technology is continuing to drive the industry forward, as it adapts to changing energy storage markets. This was the message of Dr Andy Bush, managing director of the International Lead Association, speaking on the eve of the 15th European Lead Battery Conference in Valletta, Malta, in September. He noted that lead batteries remain by far the most popular rechargeable battery worldwide owing to their combination of performance, low cost, safety and recycling record.

Bush cited some recent significant announcements that illustrate the industry's commitment to investing in lead battery technology:

– East Penn Manufacturing and RSR Corporation: these US companies have announced a new collaboration with the US Department of Energy's Argonne National Laboratory for using Argonne's state-of-the-art analytic technologies to accelerate research on lead batteries.

– Ecoult: the Australian company has developed a 20 kW UltraFlex energy storage system based on the UltraBattery® invented at CSIRO, Australia. UltraFlex is a system for off-grid and dual-purpose applications, and has already achieved consistent fuel savings for its off-grid clients of 50% or more. "We've already



proven UltraBattery in selected large-scale megawatt installations in Australia and the US, and are now proud to make UltraBattery solutions generally available on a smaller scale," stated John Wood, Ecoult ceo, at the UltraFlex launch last October.

– Exide Technologies: the European company has announced the next generation of maintenance-free Tensor xGel lead traction batteries, which exhibit higher power, increased energy efficiency and the ability for rapid recharge.

– Johnson Controls: the US company will invest \$445 million to boost production of its absorbent glass mat (AGM) batteries worldwide. This includes \$245 million to double

The lead-acid battery is long-established but continues to advance

AGM output in North America by 2020, and \$200 million to build a new battery plant in China. This anticipates a global increase in start-stop automotive systems, for which AGM batteries are suitable.

– Moura: Brazil's Moura is building a new \$65 million plant to raise its lead battery capacity by 40%. It also announced that its enhanced flooded batteries have achieved significant cycle life test results at the Akkuteam battery laboratory in Germany, where its AGM batteries will be tested later this year.

– Narada Power Source: China's Narada, in a continuation of an Advanced Lead Acid Battery Consortium (ALABC) sponsored project, has been able to boost the number of successful power-assist cycles for its lead batteries in hybrid port cranes and elevators from 700 to over 26,000. This demonstrates that advanced valve-regulated lead-acid batteries are an excellent power source for these emerging applications.

– ALABC, which has more than 70 member companies, has announced a new three-year multi-million dollar pre-competitive research programme, which will focus on further improving performance in automotive and industrial energy storage applications.

Latin American automotive investments rise

Mexico's automotive industry is forecast to double in capacity between 2010 and 2020 to reach 6 million units/year, according to a study published by US-based Center for Automotive Research (CAR). Mexico has become a key destination for investment from carmakers and auto part producers, says CAR, and received \$13.30 billion in investments from German, Japanese and South Korean carmakers in 2010-2015.

The country is also experiencing

'unprecedented' growth in its exports owing to the large number of trade agreements with other countries, while labour costs in the automotive sector have been relatively low and stable in the past decade, notes the study. These factors are behind the rise in investments.

Only a small percentage of Mexico's steel output is automotive-grade, CAR points out, but several steelmakers have announced local projects to boost



Tenigal plans to double its galvanizing capacity in Mexico

this, including Tenigal, Grupo Simec and ArcelorMittal.

Meanwhile, Renault Nissan has said that it will invest \$800 million in its assembly lines in Argentina between 2015 and 2018. A new \$600 million line in Córdoba province will make 70,000 pickup trucks per year from 2018, while another \$200 million will be spent to produce four new models at the same plant. Argentina is the third largest automotive market in Latin America.