

“Big Three” automakers hire Bend’s OnTo Technology for battery recycling project

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Local company to research and develop technology to recycle advanced batteries used in hybrid, electric vehicles for Ford, GM, DaimlerChrysler

The United States Council for Automotive Research’s (USCAR) Vehicle Recycling Partnership (VRP), composed of DaimlerChrysler, Ford Motor Company and General Motors Corporation, recently awarded a contract to OnTo Technology LLC of Bend, Ore., to research and develop technology to recycle advanced batteries used in hybrid and electric vehicles. The research will involve two kinds of advanced battery chemistries – nickel-metal hydride (NiMH) and lithium ion – and will examine the technical feasibility of recycling these types of automotive batteries, based upon laboratory scale experiments to evaluate the utility of materials produced from various recycling processes. The results will be used to project the investment necessary to adopt new recycling technologies in pilot scale operations. “Hybrid-electric vehicles are more fuel efficient, but require high power and energy advanced battery packs. Because of these requirements, they are larger than the highly recycled lead acid batteries found in conventional vehicles,” said USCAR Executive Director Don Walkowicz. “USCAR’s Vehicle Recycling Partnership, representing the three U.S. automakers, is working to get ahead of the curve by promoting new technologies to recycle these batteries when hybrid vehicles reach their end-of-life.” OnTo Technology develops new and clean processes to recycle advanced batteries from consumer electronics. “We will use our technology to recycle HEV and EV batteries,” said Steven Sloop, founder and chief executive officer of OnTo Technology LLC. The company has received support from the Oregon Department of Energy to build a pilot plant in Bend, Ore. “We recycle advanced batteries to recover micro- and nanomaterials for reuse in new batteries. It goes beyond the usual smelting solution, where these valuable materials are burned, and only the crude metal mixtures are recovered,” Sloop explained. To maximize the recycling yield, OnTo will work in collaboration with Applied Intellectual Capital (AIC) of Emeryville, Calif. AIC’s core expertise is in electrochemical technology, nanomaterials and advanced separations. “Our collaboration with OnTo is typical of our incubation strategy of providing complementary expertise and resources toward developing a technology that has immediate industrial application,” said Stephen Clarke, chief executive officer of AIC. The research is expected to conclude in six months. About OnTo Technology LLC OnTo develops technology for business sustainability. It uses green chemical methods to provide products and services to the mobile power market. Advanced batteries are the basis of both the mobile communication revolution and future personal transportation. OnTo’s expertise improves advanced battery serviceability and recyclability. OnTo provides efficient recycling technology that is fundamental for the continuing expansion of rechargeable battery dependent markets – from cell phone communication to hybrid and electric cars.

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