

## **Dow Kokam Acquires Lithium Battery Developer Kokam America**

By Mara Lemos Stein

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Dow Kokam LLC, a joint venture between The Dow Chemical Co. and TK Advanced Battery LLC, has acquired the assets of advanced lithium-ion battery technology developer and manufacturer Kokam America Inc.

With the acquisition, Dow Chemical is taking another step to establish itself among the main players in the burgeoning market.

The Dow Kokam joint venture was created earlier this year to build a facility in Michigan to manufacture prismatic cells and packs for the flat-panel Superior Lithium Polymer Battery product, developed by Kokam Co., of South Korea. The partnership's primary target is the transportation market.

Besides Dow Chemical, the other partner in the joint venture - TK Advanced Battery - was made up of Kokam America and two venture partners. Venture capital investors Townsend Ventures LLC, a majority investor in Kokam America, and Sail Venture Partners LLC, an investor in Kokam through Townsend, remain shareholders in the Dow Kokam joint venture after the acquisition. The venture firms didn't invest new capital in the transaction.

Terms of the deal weren't disclosed.

Dow expects to generate \$50 million in revenue from battery materials' sales by 2015, Dow Chemical company officials told Clean Technology Insight.

Speaking on the sidelines of Dow Chemical's investor day in New York on Thursday, the newly appointed Dow Kokam Chief Executive Ravi Shanker said that Dow's existing relationships in the automotive sector and its industrial acumen in the chemical industry will give Dow Kokam the ability to scale capacity up quickly and help drive costs down.

"We're looking at the overall systems cost...we take a holistic approach, in how we deliver more energy density and bring the costs down by improving the lifecycle [of the battery]," he said. Energy density in a battery refers to how long the battery can run on a single charge.

"We have a compelling value proposition," said Shanker, who was previously corporate director for ventures and business development at Dow Chemical.

Some of Kokam America executives, including former Chief Executive Don Nissanka, will be joining Dow Kokam's executive team, said Shanker, adding that appointments will be made soon.

Dow Kokam's emergence in the automotive lithium-ion battery market, which analysts predict will be around \$15 billion by 2015, has been speedy.

Soon after announcing the joint venture, in April Dow Kokam was awarded a \$100 million,

four-year tax credit by the state of Michigan to build its new facility, plus \$44.6 million over 15 years in state tax credits. This facility will have the capacity to manufacture 2 billion watt-hours of large-format prismatic cells and batteries annually, sufficient to power 100,000 fully electric or hybrid-electric vehicles.

The Michigan tax incentives were supplemented in August by a \$161 million grant from the U.S. Department of Energy aimed at accelerating the creation of a domestic advanced battery and components industry. Shanker said that Dow Kokam is "in daily communications" with the DOE to finalize the grant contract, which he said should be made in a few weeks.

The company is also in discussions with original equipment manufacturers, currently developing hybrid electric vehicles and fully-electric vehicles for possible supply deals. He declined to discuss any details about these potential deals. "We're a very young company; as we go forward, we'll make the announcements," said Shanker.

Kokam America was already a supplier to privately held Smith Electric Vehicles U.S. Corp., which is producing an all-electric commercial vehicle at its first assembly plant this side of the Atlantic in Kansas City, Mo. That deal is now part of Dow Kokam.

South Korea-based Kokam Co. has also been a supplier of lithium-ion batteries for the defense and industrial markets, markets that Dow Kokam expects to explore, said Shanker. Eventually, stationary power storage will also be a target for the company's technology, he said.

Kokam Co. remains the primary patent holder of its lithium-ion battery technology, and Dow Chemical has the exclusive license on the technology for the automotive sector. Kokam Co. will be supplying the equipment for the Michigan facility.

As the company is now heavily capitalized, venture investors in Kokam are likely to be sitting on higher-value stakes. Last December, Sail invested a total of \$12 million in Kokam, with \$10 million of that being in South Korea's Kokam, and \$2 million in its Kokam America affiliate. The investment was done through a partnership with Townsend Ventures, of Maryland. Sail still holds the position in the South Korea's Kokam Co.

Walter Schindler, managing partner at Costa Mesa, Calif.-based Sail Venture, declined to discuss the current value of the investment, but said the firm is happy to be sticking to it. "We think that Dow Kokam will emerge as the leading manufacturer of batteries for the global automotive industry," he said.

Dow expects to generate \$50 million in revenue from battery materials sales by 2015, according to an executive.

<http://www.kokamamerica.com>