

Cleaner Light Sources and Electric Rides

May 10, 2010

Let There Be Light

Light-emitting diodes have been used as a source of lighting for years, but mainly in commercial settings such as parking garages because of their high upfront cost compared with other types of lighting. LED manufacturers, however, have come out with cheaper and more efficient products that they say will drive wider adoption by both companies and consumers.

LEDs are about 10 times as energy-efficient as incandescent bulbs, according to the U.S. Department of Energy. Freedonia Group Inc., a Cleveland research firm, projects that U.S. demand for advanced lighting products such as LEDs and compact fluorescent lamps will grow 11% a year to \$6.8 billion in 2013.

Bridgelux Inc., of Sunnyvale, Calif., is one of the companies aiming to broaden the appeal of LED lighting.

Bridgelux has introduced a line of "packaged chips"—LEDs assembled into a more usable form—that it says are 30% to 50% more efficient and 10% cheaper than the previous generation.

The company's aim is to make chips that can be dropped into a lamp or fixture for easy engineering and therefore lower cost, says President Mark Swoboda.

Cree Inc., of Durham, N.C., recently unveiled a new version of its XLamp packaged chip that also aims to make engineering easier for lamp makers.

Buzz About Cars

Coda Automotive Inc., of Santa Monica, Calif., secured \$394 million in funding commitments for its joint venture with Lishen Power Battery that will make the lithium-ion battery systems for Coda's planned all-electric, five-passenger sedan.

The commitments—among the latest capital to flow to electric-vehicle manufacturers as they rush to expand—will allow the joint venture to move forward with commercial production of the car's power system.

Coda's partner, Lishen Battery, is a Chinese lithium-ion battery maker that also supplies Apple Inc., Motorola Inc. and Vodafone Group PLC.

The funding commitments included \$100 million in equity capital from undisclosed investors and \$294 million line of credit from the Bank of Tianjin Joint-Stock Co., a Chinese bank.

Coda, an offshoot of Miles Electric Vehicles, is aiming to have its vehicle on the road in the fourth quarter.

City Of Light

SolarCity Inc. of Foster City, Calif., has raised \$90 million to fund solar-power projects this year.

U.S. Bancorp Community Development Corp., a subsidiary of U.S. Bancorp, provided a good chunk of that capital in the form of tax equity, a type of financing that is making a comeback after shriveling during the

recession. In tax-equity transactions, developers lease projects to investors, who then receive federal tax credits they can use to reduce taxes.

About \$38 million will flow back to U.S. Bancorp in the form of federal subsidies, says Lyndon Rive, SolarCity's chief executive. The \$90 million is the total value of the projects that will be funded, he said, with some of the capital coming in the form of equity from SolarCity, and some debt.

SolarCity installs solar-power systems for residential and commercial customers and charges them monthly fees for the electricity generated by the systems.

Capital for Chemistry

Genomatica Inc. raised \$15 million as part of a Series C round of financing, securing fresh funding to advance the production of a plant-based chemical to demonstration stage and to expand its pipeline of other bio-based products.

The San Diego company has developed a manufacturing process in which it uses a micro-organism to turn sugar into butanediol, a chemical currently produced from petroleum and used in clothing such as spandex, cars and other consumer goods.

Butanediol "is really where we'll make our initial mark," says Christophe Schilling, Genomatica's president and chief executive. "It's a terrific place for us not only to create a lot of value but also an opportunity to show what we can do."

The new round, led by TPG Biotech, included previous investors Mohr Davidow Ventures, Alloy Ventures and Draper Fisher Jurvetson. It brings the total amount of funds raised by Genomatica to approximately \$35 million.