

Investors Snatch A123 Shares but Technology Challenges Remain

BY MARA LEMOS STEIN

9/28/2009 (DOW JONES CLEAN TECHNOLOGY INSIGHT)— A123 SYSTEMS INC.'S INITIAL PUBLIC OFFERING LAST WEEK CAPTURED INVESTORS' IMAGINATION -- - AND WALLETS --- WITH A VISION OF A FUTURE WHERE POWER IS STORED INTELLIGENTLY AND DEPLOYED EFFICIENTLY IN A WORLD OF LOWER CARBON EMISSIONS.

AT THE CORE OF THAT VISION IS LITHIUM-ION BATTERY TECHNOLOGY, WHICH HAS REVOLUTIONIZED CONSUMER ELECTRONICS BUT IS STILL IN ITS EARLY DAYS FOR APPLICATIONS IN TRANSPORTATION OR UTILITY-SCALE STORAGE. BATTERIES' COST, SIZE, WEIGHT AND LIFE SPAN ARE AMONG THE CHALLENGES FACED BY A123 AND ITS COMPETITORS, AND COULD DISRUPT THE COMPANY'S TRAJECTORY TO PROFITABILITY.

EXPERTS AND INVESTORS FAMILIAR WITH A123'S LITHIUM-ION TECHNOLOGY SAY THAT IT DOESN'T PROVIDE THE MOST POWER IN A BATTERY PACK COMPARED TO COMPETITORS BUT IT IS ONE OF THE SAFEST, PERFORMING AT HIGH TEMPERATURES.

IN SPITE OF THE CHALLENGES, THE WATERTOWN, MASS.-BASED BATTERY DEVELOPER AND MANUFACTURER STAGED THE SECOND MOST SUCCESSFUL IPO SO FAR THIS YEAR BECAUSE INVESTORS HAVE BEEN HUNGRY FOR A CHANCE TO INVEST IN THE NEW WAVE OF ENERGY TECHNOLOGY, SAID MARKET WATCHERS. THERE WAS ALSO A PENT-UP DEMAND FOR IPOs AFTER A LONG DROUGHT, AS INVESTORS' APPETITE FOR RISK IS RETURNING, THEY SAID.

WHAT'S MORE, A123'S TECHNOLOGY --- A LITHIUM-IRON-PHOSPHATE CHEMICAL COMBINATION --- HAS BEEN USED COMMERCIALY IN BLACK & DECKER'S POWER TOOLS FOR YEARS, AND IT IS BEING TESTED BY MAJOR AUTOMAKERS INCLUDING BMW, CHRYSLER GROUP AND GENERAL MOTORS CORP. THAT REFLECTS THE COMPANY'S ABILITY TO DELIVER COMMERCIAL AMOUNTS OF ITS PACK AND TO POSITION ITSELF IN A MARKET THAT ANALYSTS SAY COULD RANGE BETWEEN \$15 BILLION AND \$20 BILLION IN 2015.

AFTER UNDERWRITERS INCREASED THE SIZE OF THE OFFERING AND THE PRICE RANGE EARLIER LAST WEEK, A123 SYSTEMS' SHARES CLOSED UP 50% ON ITS FIRST DAY OF TRADING AS A PUBLIC COMPANY ON SEPT. 24, AND THE COMPANY RAISED \$378 MILLION. ON FRIDAY, THE STOCK SHED 3.4% TO END AT \$19.70 PER SHARE.

"[A123 SYSTEM'S] GOAL IS NOT TO BE THE MOST BLEEDING-EDGE TECHNOLOGY, IT'S TO PROVIDE A HIGHLY CAPABLE PRODUCT AT A LOW COST THAT OPERATES IN A RELIABLE MANNER; AND THAT'S THE DEFINITION OF A VERY SUCCESSFUL COMMERCIAL PRODUCT," SAID RICHARD BAXTER, A BOSTON-BASED PRINCIPAL AT CHARLES RIVER ASSOCIATES INTERNATIONAL, A CONSULTANCY FIRM, AND AUTHOR OF THE BOOK "ENERGY STORAGE: A NON-TECHNICAL GUIDE."

ACCORDING TO A MARCH 2009 REPORT BY THOMAS WEISEL PARTNERS ON THE ELECTRIFICATION OF TRANSPORTATION, THE CATHODES IN LITHIUM-IRON-PHOSPHATE ARE SAFER AND MORE STABLE THAN THE COMBINATIONS USING COBALT DIOXIDE AND MANGANESE. LITHIUM-IRON-PHOSPHATE IS ALSO

CHEAPER THAN THE OTHER CONFIGURATIONS, AND THE ISSUE OF LOWER CONDUCTIVITY PRESENTED BY PHOSPHATE HAS BEEN DEALT WITH THROUGH DOPANTS BY A123, AS WELL AS OTHER BATTERY MAKERS.

OTHER CHALLENGES FACED BY DEVELOPERS OF BATTERIES FOR THE PLUG-IN HYBRID AND FULLY ELECTRIC VEHICLES IS BATTERY WEIGHT, SIZE OR VOLUME, AND HOW MANY TIMES THE BATTERY CAN BE CHARGED WITHOUT BEING DEPLETED OVER ITS LIFETIME. FINALLY, IT'S CRUCIAL TO ACHIEVE THE BEST OF ALL OF THESE FOR THE LEAST COST, EXPERTS AND MARKET WATCHERS SAID, SINCE PRICE WILL DETERMINE THE PACE OF THE ADOPTION OF THE TECHNOLOGY.

TACKLING THESE ISSUES IS WORK-IN-PROGRESS FOR BATTERY DEVELOPERS, AND A GREAT CHUNK OF THE FUNDING FROM PRIVATE INVESTORS, PUBLIC OFFERINGS AND GOVERNMENT IS BEING DIRECTED TO RESEARCH AND DEVELOPMENT. SINCE INCEPTION IN 2001, A123 SYSTEMS HAS INVESTED \$109 MILLION IN R&D, NOT COUNTING THE PORTION OF THE COSTS TAKEN ON BY ITS CUSTOMERS THAT FUND SPECIFIC PROJECTS, THE COMPANY SAID IN REGULATORY FILINGS.

A123 DIDN'T DISCLOSE THE COST-PER-UNIT OF ITS PRODUCTS, THOUGH. IT REPORTED REVENUE OF \$42.9 MILLION IN THE SIX MONTHS TO JUNE 30, AND AN OPERATING LOSS OF \$40.3 MILLION, UP FROM \$32.3 MILLION IN THE SAME PERIOD LAST YEAR. IT HAD AN ACCUMULATED DEFICIT OF \$193.5 MILLION SINCE INCEPTION.

OTHER LITHIUM-ION BATTERY DEVELOPERS INCLUDE KOKAM, A SOUTH KOREA-BASED PRODUCER AND ITS KOKAM AMERICA SUBSIDIARY, WHICH EARLIER THIS YEAR FORMED A PARTNERSHIP WITH DOW CHEMICAL CO.

"WE HAVE LOOKED AT A NUMBER OF LITHIUM-IRON-PHOSPHATE TECHNOLOGIES AND WE HAVE THUS FAR ELECTED TO INVEST IN DOW KOKAM'S LITHIUM-ION POLYMER TECHNOLOGY BECAUSE WE BELIEVE THAT IT OFFERS A POTENTIALLY LOWER COST OF PRODUCTION AND HIGHER ENERGY DENSITY," SAID WALTER SCHINDLER, MANAGING PARTNER AT COSTA MESA, CALIF.-BASED SAIL VENTURE PARTNERS, WHICH INVESTED \$12 MILLION IN KOKAM.

THE BET IN LITHIUM-ION IS ALSO COUNTING ON THE SUPPORT OF THE U.S. GOVERNMENT, WHICH IS PROVIDING GRANTS AND LOW-COST LOANS TO TECHNOLOGY DEVELOPERS TO HELP SPUR THESE ADVANCES AND REDUCE RELIANCE ON FOSSIL FUELS. A123 SYSTEMS RECEIVED A \$249.1 MILLION U.S. DEPARTMENT OF ENERGY GRANT LAST MONTH, THE SECOND-BIGGEST AWARDED AS PART OF A \$2.4 BILLION PROGRAM TO START UP A DOMESTIC BATTERY INDUSTRY. DOW KOKAM, FOR ITS PART, GOT A \$161 MILLION GRANT TO BUILD ITS MANUFACTURING FACILITY.

IF THE RECEPTION OF A123'S DEBUT IN THE PUBLIC MARKETS IS ANY INDICATION, INVESTORS AT LARGE HAVE A STRONG FAITH IN THE WIDESPREAD ADOPTION OF ELECTRIC VEHICLES.

"I HAVE ABSOLUTELY NO DOUBT THAT THE AUTOMOTIVE SPACE IS TRANSITIONING MUCH MORE RAPIDLY THAN PEOPLE REALIZE INTO BATTERIES," SAID ION YADIGAROGLU, A PARTNER OF CAPRICORN INVESTMENT GROUP, A VENTURE CAPITAL FIRM THAT HAS INVESTED IN TESLA MOTORS INC., THE MAKER OF THE LUXURY, FULLY ELECTRIC ROADSTER CAR.

TO SOME EXTENT, BETTING ON THIS TRANSITION IS STILL GREATLY IN THE DOMAIN OF VENTURE CAPITALISTS AND PRIVATE EQUITY FIRMS, SO A123 SYSTEMS' OFFERING HAD SOME MOMENTUM FROM

ITS "SCARCITY VALUE" NOT ONLY OF IPOs BUT ALSO OF THIS TYPE OF TECHNOLOGY COMPANY, SAID R. ANDREW DEPASS, SENIOR ADVISOR AT GREENTECH CAPITAL ADVISORS, A NEW YORK-BASED INVESTMENT BANK.

"THIS IS A PLAY ON THE ELECTRIFICATION OF THE AUTOMOBILE SECTOR WHERE THE GROWTH IS EXPECTED TO BE HUGE," SAID DEPASS. "A123 IS ONE OF THE ONLY PURE-PLAY FOR BATTERIES WITH A DIFFERENTIATED TECHNOLOGY THAT INVESTORS COULD GET THEIR HANDS ON."

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