



MICHIGAN ECONOMIC DEVELOPMENT CORPORATION

MEMORANDUM

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Date: April 6, 2009
To: Michigan Economic Growth Authority Board Members
From: Martin Dober, Vice President
New Markets
Valerie Hoag, Director
Packaging Team
Subject: Standard MEGA Credit, Battery Cell Manufacturing MBT Credit and
Anchor Jobs MBT Credit
KD Advanced Battery Group, LLC

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APPLICANT

KD ABG MI, LLC
c/o the Dow Chemical Company
2030 Dow Center
Midland, Michigan 48674

COMPANY BACKGROUND

KD Advanced Battery Group, LLC (KD ABG) was recently formed for the purpose of constructing and operating a large scale manufacturing facility in Michigan that will produce safe and affordable cells and batteries for the electric and hybrid electric vehicle markets. KD's parent entity will consist of three prospective owners:

- 1) Dow Chemical Company is a diversified chemical company that delivers a broad range of products and services to customers in 160 countries. Dow's products connect chemistry and innovation with the principals of sustainability to help provide everything from fresh water, food and pharmaceuticals to paint, packaging and personal care products.
- 2) Kokam America, Inc. was formed in October of 2005 is based in Lee's Summit, Missouri. Kokam has successfully installed a highly automated Superior Lithium Polymer Battery (SLPB) manufacturing facility in Lee's Summit that has commenced operations to support U.S. defense battery sustainment. Kokam's current business involves manufacturing, marketing, selling and distribution of the SLPB technology and related products for the aerospace, defense, communications and securities industries.
- 3) Townsend Ventures, LLC was established in 2007 by Dennis Townsend and David Townsend to invest primarily in emerging technologies that focus on the energy sector. Since its formation, Townsend Ventures has invested in oil and gas explorations, a lighting control company based in Canada as well as Kokam America. Townsend Ventures has provided these companies with capital and has put in place experienced management teams critical to achieving long term success.

PROJECT DESCRIPTION

KD intends to construct a new 800,000 square foot highly automated large-format battery manufacturing facility to produce its patented advanced SLPB technology for electric vehicle and hybrid electric vehicle markets. This facility will have the capacity to manufacture 1.2 billion watt hours of large format prismatic cells and batteries annually; sufficient to power a total of 60,000 fully electric or hybrid electric vehicles.

KD estimates that it will invest approximately \$665 million and create up to 885 new jobs over the next five years paying an average weekly wage of \$730. The company will also offer healthcare benefits and pay a portion of the benefit costs.

STANDARD MEGA CREDIT

Benefit to State:

According to the economic analysis done by the Michigan Economic Development Corporation utilizing Regional Economic Models, Inc. software, it is estimated that this facility will create a total of 2,644 jobs in the state by the year 2030. We also estimate that the project would create total state government revenues through the year 2030, net of MEGA cost, of \$240 million (current dollars) due to the creation of these new jobs.

Business Case:

The tax credits being offered in Michigan help make the proposed facility a viable project. If these credits were not available, the proposed facility would likely be built elsewhere. Additionally, if KD does not receive the credits, it intends to increase the size of its proposed facility to be located in Lee's Summit, Missouri.

Other State and Local Assistance:

Currently, there is currently no local support for this project; however, the company will pursue the maximum local assistance available in the form of a P.A. 198, P.A. 328 or an MSF designated renaissance zone. A final decision regarding the site will be made within 90 days of MEGA board approval.

KD ABG while new to Michigan will benefit greatly from its association with the Dow Chemical Company. Through its leadership in low-cost design and significant reach through its Dow parentage, KD ABG will attract significant interest from supply chain partners in bringing their business in proximity to this new facility. The Michigan Economic Development Corporation plans to recommend approval of an Anchor Jobs MBT Credit related to this project at a future date.

BATTERY CELL MANUFACTURING MBT CREDIT

As mentioned previously, KD intends to construct a new 800,000 square foot highly automated large-format battery manufacturing facility to produce its patented advanced SLPB technology for electric vehicle and hybrid electric vehicle markets. House Bill 6611 of 2008 P.A. 580 (aka - Michigan's Advanced Battery Credits) Subsection (5) offers a tax credit equal to 50% of the capital investment of expenses for construction of an integrated cell manufacturing facility that includes anode and cathode manufacturing and cell assembly. The credit shall not exceed \$25 million per year for no more than 4 years. The maximum value of the credit is limited to \$100 million.

The KD project was competitively reviewed by a panel consisting of the following individuals:

- Paul Skalny, Director; National Automotive Center US Army Tank Automotive Research Development & Engineering
- Dr. Ray Boeman, Director; Transportation Program, Oakridge National Laboratory
- Doug Parks, Michigan Economic Development Corporation; Senior Vice President of New Markets

The panel reviewed the KD proposal utilizing the grading criteria that was approved by the MEGA Board March 17, 2009 (see attached).

KD ABG's patented Z-folding technology is a key differentiator for this applicant from a technology standpoint. KD's cells do not form an SEI layer or are subject to lithium plating which are degradation mechanisms affecting capacity and life. They showed data, described as both internal and independent (UC-Davis) that indicated performance (rate of charge/discharge) far exceeding compared competitors, especially for its newer nano-version of its chemistry.

KD brings together a proven battery cell with significant placement in military applications across the Navy and Army, with the global materials expertise, leverage and reach of Michigan-based Dow Chemical. It has significant contracts in place which will provide batteries for multiple Ford platforms, as well continued growth in military and commercial fleet applications. The group has also formed an alliance with French-based Groupe Dassault which will give it strong expertise in system development and integration, as well as access to European automotive OEM opportunities.

RECOMMENDATION

Standard MEGA MBT Credit

Based on the factors described above, the Michigan Economic Development Corporation recommends a 100 percent standard employment credit for 15 years for up to 885 net new jobs in excess of the company's established employment base of 0.

Battery Cell Manufacturing MBT Credit

The review panel highly recommends the KD Advanced Battery Group project based on the factors described above when compared with the six other applications reviewed. It is recommended that KD Advanced Battery Group, LLC receive a Battery Cell Manufacturing Credit in an amount of \$100 million not to exceed \$25 million per year for 4 years subject to the following:

- The credit shall not be claimed prior to a tax year beginning 2012.