

CALIFORNIA ALTERNATIVE ENERGY AND
ADVANCED TRANSPORTATION FINANCING AUTHORITY

Request to Approve Project for SB 71 Sales and Use Tax Exclusion (STE)¹

SIMBOL MINING CORPORATION
Application No. 10-SM010

Wednesday, December 15, 2010

Prepared By: *Deana Carrillo*

SUMMARY

Applicant – Simbol Mining Corporation

Location – Calipatria, Niland, and Brawley, Imperial County

Industry – Lithium and Battery Material Mining and Manufacturing

Project – New facilities to mine lithium and other battery material from an existing geothermal energy plant to produce battery-grade lithium compounds

Value of Qualified Property – \$42,484,174

Estimated Sales and Use Tax Exclusion Amount² – \$3,866,060

Estimated Net Benefits: -- \$6,244,717

Application Score –

Fiscal Benefits Points:	2,471
<u>Environmental Benefits Points:</u>	<u>144</u>
Net Benefits Score:	2,615
<u>Additional Benefits Points:</u>	<u>80</u>
Total Score:	2,695

Staff Recommendation – Approval

¹ All capitalized terms not defined in this document are defined in the Program’s statute and regulations.

² This amount is calculated based on the average statewide sales tax rate of 9.1%.

THE APPLICANT

Simbol Mining Corporation (“Simbol” or “Applicant”) was incorporated on May 10, 2007 in Delaware. Simbol is a lithium and battery materials mining and manufacturing company headquartered in Pleasanton, California. Simbol plans to capture and produce lithium and other compounds to sell to third parties for the production of lithium-ion batteries targeting low- or zero-emission, advanced technology vehicles (xEV’s), including electric vehicles (EV’s) plug-in hybrid electric vehicles (PHEV’s), hybrid electric vehicles (HEV’s) and electric bicycles and motorcycles (e-bikes) and energy storage technologies. Simbol anticipates a portion of its products will be used for the production of batteries for consumer products as well, and believes the percentage will decrease as the demand for electrical vehicles increases over time.

Simbol’s manufacturing process relies on co-locating with a geothermal power generation plant, and extracting lithium, manganese, and zinc compounds from the geothermal “brine” that the power plant uses as a heat source to generate energy. Simbol has a long term contract with EnergySource LLC to co-locate Simbol’s facilities at its geothermal power plant in Imperial County.

The major shareholders (10.0% or greater) of Simbol are:

Mohr Davidow Ventures IX LP
Itochu Corporation
Firelake Investors Fund II LP

The corporate officers of Simbol are:

Luka Erceg – President and CEO
Stephen Harrison – Chief Technology Officer
Timothy Larrison – Chief Financial Officer

THE PROJECT

Simbol has developed proprietary technology to extract lithium, manganese, and zinc compounds from the hot water that geothermal power plants use to generate electricity. These compounds are key ingredients in lithium ion and other types of batteries. One of Simbol’s products, “Battery grade” lithium, can be used in a variety of end-products, including: electric vehicles, plug-in hybrid electric vehicles (PHEV’s), hybrid electric vehicles (HEV’s), electric bicycles and motorcycles (e-bikes), as well as cell phones, computers and other consumer goods.

The company claims in its application that its product qualifies as an “Advanced Transportation Technology” because its product will be used in electric car batteries. Because the demand for lithium for car batteries is currently limited due to the modest number of electric cars sold, Simbol plans to sell lithium initially to both makers of electric car batteries and makers of batteries used for consumer electronics or other uses. As demand for electric cars increases, Simbol plans to sell an increasing fraction of its output to makers of electric car batteries. Nevertheless, Simbol represents that its company was specifically established to produce lithium for the electrical vehicle battery industry, which is anticipated to grow significantly over the coming years.

Review of Project Eligibility

Because the Applicant’s product can be used for both an Advanced Transportation purpose explicitly authorized by SB 71 (electric vehicles) as well as a non-authorized purpose (consumer electronics), CAEATFA staff has grappled with the issue of determining how to verify an Applicant’s statements with respect to the intended market for its products.

According to the program regulations, the property that an Applicant purchases with the sales tax exclusion must be “used substantially” for the design, manufacture, production or assembly of Advanced Transportation Technologies. The regulations further define “substantial use” as being used 75 percent of the time.

In the case of Simbol, the Applicant does not have (a) existing customers in the Advanced Transportation market to which it intends to sell more or (b) contracts with new customers in the same market. Instead, the Applicant represents that it ultimately intends to sell substantially all of its products to the electric vehicle battery market, and has provided as support for this statement a large volume of materials, including the following:

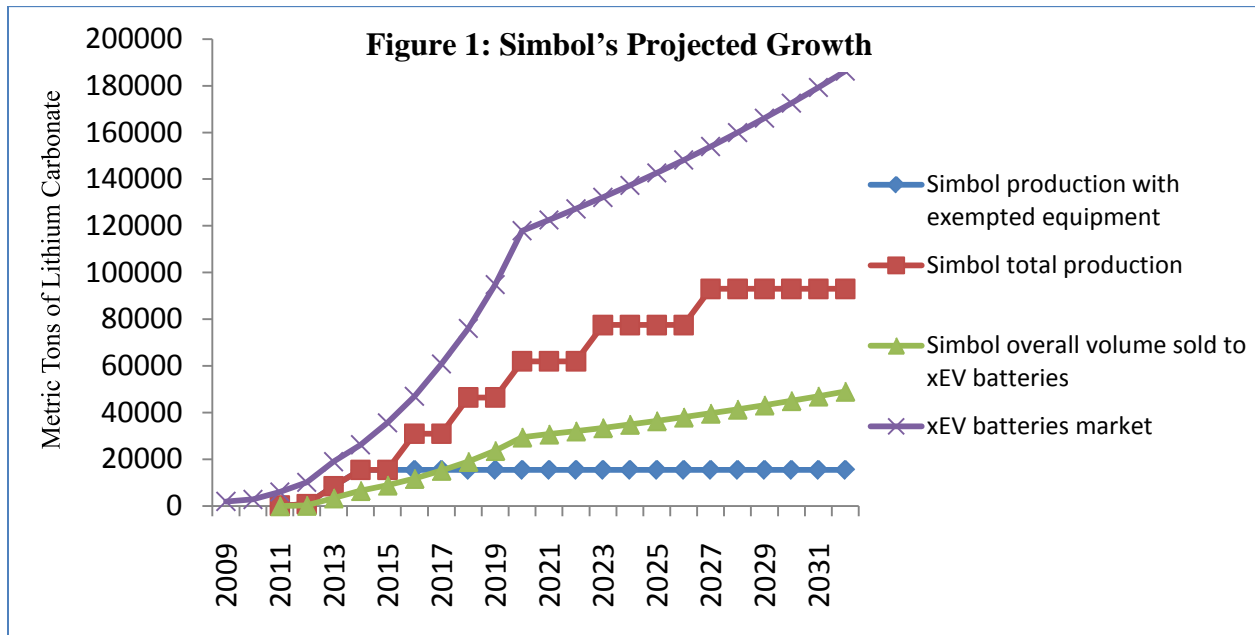
1. Third party projections documenting a substantial increase in lithium demand from the electric car industry.
2. Statements from several of its investors indicating their investment was based on “Simbol’s ability to satisfy the emerging needs of the electric vehicle industry.”
3. A marketing agreement covering 55% of Simbol’s output with a Japanese company that has ties to electric vehicle companies.
4. An internal company projection indicating that it intends to capture 25% of global xEV battery lithium market in the next several years.³
5. The Applicant’s anticipation that utility-scale energy storage using lithium-ion batteries will be a fast growing market in the next two decades, supported by the recent passage of Assembly Bill 2514.
6. A competitive advantage the Applicant may have over other lithium manufacturing companies by being located in one of the largest markets for xEVs (CA & US) in the world.
7. A statement from the Applicant indicating that its long-term plans include purchasing additional equipment to accommodate battery grade lithium sales for non- Advanced Transportation uses. These additional purchases are not the subject of this Application, and would not be Qualified Property under the Program.

Using this documentation as support, the company projects that, although it will initially sell lithium to both the (authorized) Advanced Transportation market and the (unauthorized) other lithium markets, over a 10 year period it expects to sell 78 percent of its output into the Advanced Transportation market. This overall average includes an early period in which a relatively small fraction of the output is sold into this market and a later period in which 100 percent of its products will be sold to the electrical vehicle battery market. The legal documents

³ The company represents that there are currently only three other low-cost lithium producers in the markets, and anticipates Simbol will produce 25 percent of the market share of lithium for xEV batteries by 2014. The three other companies are SQM, Chemetall and FMC.

that the Applicant will enter into with CAEATFA will be active for a 10 year period, half of the useful life of qualified property. See Figure 1 below.

While CAEATFA staff acknowledges that the assumptions and projections of the Applicant are aggressive, we believe that they are not unreasonable and have been supported to the extent that the Applicant, as a start up without an established customer base that is entering an emerging market, is able. Therefore, after much due diligence, CAEATFA staff has determined to rely on the Applicant’s statements that the Qualified Property will be used as outlined in the Application.



Project Description

The project includes a demonstration plant, an initial commercial plant, a full-scale plant and a high-purity lithium carbonate plant. Each of these facilities will be located in Imperial County. The demonstration plant will be located in Calipatria; the initial commercial plant and the full scale plant will be located in Niland; and the high-purity lithium carbonate plant will be located in Brawley. The full scale plant will produce 15,500 metric tons per year (tpy) of lithium carbonate and lithium hydroxide, expanding to 62,000 tpy by 2020.

The Applicant has stated that its mining method is environmentally sustainable – it extracts the compounds from hot water that is initially used in the geothermal energy plant. The facilities included in this application will produce: 1) “Battery-grade” (99.5% pure) lithium carbonate and lithium hydroxide, used to make cathode materials for lithium-ion batteries and 2) High-purity (99.9995% pure) lithium carbonate, used to make lithium hexafluorophosphate, the electrolyte salt in lithium-ion batteries.

Agenda Item – 4.B.14
Resolution No. 10-SM010
Application No. 10-SM010

Simbol represents that it considered California as well as other states such as Arkansas, Texas, Nevada, and Arizona and Canada in which to locate its lithium production. All of these other states have lower state corporate income tax rates, lower electricity prices, and no sales tax on manufacturing equipment, according to the Applicant. The Applicant represents that the economic advantages brought through elimination in the sales and use tax incentivized Simbol to establish its facilities in California. CAEATFA has not evaluated these claims, as the Applicant has already obtained the minimum point threshold necessary to qualify; thus no additional points were awarded in this category.

ANTICIPATED COSTS OF QUALIFIED PROPERTY

The anticipated Qualified Property purchases are listed below:

High-purity lithium carbonate plant

Entire existing plant purchased for lump sum in 2009 but not in use until 2011	\$ 297,000
Engineered process equipment needed to bring back into operation (2011)	
Chiller	100,000
Motors	10,000
Tanks	100,000
Piping	20,000
Field materials for reassembly	100,000
Filter cartridges	12,000
Peristaltic hoses	10,000
Tools	40,000
Other	176,000
Electrical equipment (2011)	180,000
Controls and instrumentation	165,000
Lab equipment	50,000
Lithium hydroxide crystallization, drying, and packaging equipment	200,000

Demonstration plant

Engineered process equipment	1,440,000
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Interconnects with geothermal power plant

Engineered process equipment	679,089
Electrical equipment	84,584
Controls and instrumentation	151,400
Other	1,484,927

Initial Commercial Plant

Feed material receiving and storage	274,995
Silica management	2,987,820
Lithium extraction	1,652,400
Evaporation	2,643,300

Qualified Property List Continued

Precipitation and drying	919,485
Utilities	622,080
Purification	445,579
Conversion to lithium carbonate	1,670,923
Spare parts	369,900
Other	413,518
Anticipated Qualified Property purchases continued:	

Full Scale Plant

Feed material receiving and storage	699,400
Silica management	6,300,600
Lithium extraction	2,981,400
Evaporation	3,500,000
Precipitation	1,823,400
Utilities	1,425,000
Purification	1,458,475
Conversion to lithium carbonate	5,833,899
Spare parts	<u>1,162,000</u>
Total	<u>\$42,484,174</u>

Note: The Qualified Property purchases reported in the Application and shown here in staff's report are estimated costs. At the termination of the conveyance/reconveyance agreement a finalized project equipment list will be prepared detailing the value of the Project equipment conveyed and reconveyed and detailing the actual tax benefit realized pursuant to Revenue and Tax Code Section 6010.8. Variations from the costs shown in the Application and in this report may occur prior to the closing due to increased costs of certain components of the Project from original estimates, and other reasons. In addition, such costs may vary after closing due also to increased costs, as well as common design and equipment modifications during construction, differences in equipment due to future changes in law or regulation or for other reasons.

TIMELINE

Simbol's scale-up path consists of three steps. First, the demonstration plant (operating in 2011), followed by the initial commercial plant (operating in 2012), followed by the full scale plant (operating in 2013). In addition, Simbol's high purity lithium plant will begin production in 2011.

PROJECT EVALUATION

NET BENEFITS

The total cost of the Qualified Property purchases is anticipated at \$42,484,174 and the total net benefits are valued at \$6,244,717 for the Project. The Project received a Total Score of 2,695,

which exceeds the required 1,000 point threshold and a total Environmental Benefits Score of 144, which exceeds the 100 point threshold.

- A. **Fiscal Benefits (2,471 points)**: The net present value of the total fiscal benefits over the lifetime of the Qualified Property is derived from the Company’s sales taxes, personal income taxes, firm taxes on profits, property taxes and other indirect fiscal benefits of the Applicant which amounts to \$9,552,414 resulting in a Fiscal Benefits Score of 2,471 points for the Project.

- B. **Environmental Benefits (144 points)**: The project results in \$558,363 of total pollution benefits over the life of the Facility resulting in an Environmental Benefits Score of 144 points for the Project. These benefits derive from the Applicant’s pro-rate share of the environmental benefits of the electric vehicles that are anticipated to be powered by batteries containing the Applicant’s lithium.

- C. **Additional Benefits (80 of 200 points)**: Applicants may earn up to 200 additional points for their Total Score. The Applicant submitted information and received 80 additional points as a result of locating its facility in a high unemployment area and producing environmental benefits outside of California.
 - 1) **Permanent Jobs (0 of 40 points)**. The Applicant’s Project will support a total of 112 permanent jobs at their Facility. CAEATFA estimates that approximately 12 of these jobs will be attributable to a marginal increase in jobs created due to the approved STE. Zero points were awarded because the marginal increase in jobs created does not meet the required threshold.

 - 2) **Construction Jobs (0 of 20 points)**. The Applicant’s Project will support a total of 100 construction jobs at their Facility. CAEATFA estimates that approximately 11 of these jobs will be attributable to a marginal increase in jobs created due to the approved STE. Zero points were awarded because the marginal increase in jobs created does not meet the required threshold.

 - 3) **Unemployment (40 of 40 points)**. The Applicant’s facility will be located in Imperial County which has a 29% unemployment rate. This is above 110% of the statewide average unemployment rate, which results in an additional 40 points for this Project.

 - 4) **Non-CA Environmental Benefits (40 of 40 points)**. The Applicant’s total value of out-of-state non-greenhouse gas pollution benefits are valued at \$402,622 resulting in a Non-CA Environmental Benefits Score of 40 points for the Project.

STATUS OF PERMITS/OTHER REQUIRED APPROVALS

Simbol has either acquired or submitted all permits necessary for the demonstration plant. Simbol will still need to submit all permits for the high purity plant and the initial commercial plant.

LEGAL QUESTIONNAIRE

Staff reviewed the Applicant’s responses to the questions contained in the Legal Status portion of the Application. The responses did not disclose any information that raises questions concerning the financial viability or legal integrity of this applicant.

CAEATFA FEES

In accordance with CAEATFA regulations,⁴ the Applicant has paid CAEATFA an Application Fee of \$5,000 and will pay CAEATFA an Administrative Fee up to \$169,936.

RECOMMENDATION

Staff recommends approval of Resolution No. 10-SM010 for Simbol Mining Corporation’s purchase of Qualified Property in an amount not to exceed \$42,484,174 anticipated to result in an approximate sales and use tax exclusion value of \$3,866,060.

⁴ California Code of Regulations Title 4, Division 13, Article 2, Section 10036.

**RESOLUTION APPROVING AND AUTHORIZING EXECUTION OF A TITLE
CONVEYANCE AGREEMENT WITH SIMBOL MINING CORPORATION**

WHEREAS, the California Alternative Energy and Advanced Transportation Financing Authority (the “Authority”) has received the Application of **Simbol Mining Corporation** (the “Applicant”), for financial assistance in the form of a conveyance/reconveyance of title agreement (the “Agreement”) regarding tangible personal property for the design, manufacture, production or assembly of Advanced Transportation Technologies or Alternative Source products, components, or systems (“Qualified Property”) as more particularly described in the staff summary and in the Applicant’s Application to the Authority (collectively, the “Project”); and

WHEREAS, the Applicant has requested the Authority to enter into the Agreement transferring title of Project equipment with an cost not to exceed \$42,484,174 over a period of three years; and

WHEREAS, the Agreement will provide that the Applicant will, prior to any use of the Qualified Property, transfer title at no cost to the Authority from time to time as purchases of Qualified Property are made and the Authority will then transfer title back to the Applicant without having taken possession of the Qualified Property; and

WHEREAS, the Applicant believes that this form of financial assistance will enable it to avail itself of the benefits of an exclusion from sales and use taxes relative to the Qualified Property pursuant to California Revenue and Taxation Code Section 6010.8; and

WHEREAS, approval of the terms of the Agreement and authority for the Executive Director, Deputy Executive Director or Chair of the Authority, to execute the necessary documents to effectuate the Agreement is now sought;

NOW, THEREFORE, BE IT RESOLVED by the California Alternative Energy and Advanced Transportation Financing Authority, as follows:

Section 1. The Project constitutes a “project” within the meaning of Public Resources Code Section 26003(g)(2).

Section 2. The requested conveyance agreement constitutes “financial assistance” within the meaning of Public Resources Code Section 26003(e)(2).

Section 3. The Applicant is a “participating party” within the meaning of Public Resources Code Section 26003(f).

Agenda Item – 4.B.14
Resolution No. 10-SM010
Application No. 10-SM010

Section 4. The Executive Director, Deputy Executive Director, or Chair of the Authority (the “Authorized Signatories”) are hereby authorized for and on behalf of the Authority to approve any changes to the Project as the Executive Director shall deem appropriate, provided that the amount of the Qualified Property to be purchased may not be increased above the amount approved by the Authority.

Section 5. The proposed form of the Agreement between the Applicant and the Authority, as filed with the Authority prior to this meeting, is hereby approved. The Authorized Signatories are hereby authorized and directed, for and on behalf and in the name of the Authority, to execute, acknowledge and deliver to the Applicant the Agreement in substantially the form filed with or approved by the Authority, with such insertions, deletions or changes therein as the Authorized Signatory executing the same, may require or approve, and with particular information inserted therein in substantial conformance with the staff summary and in the Applicant’s Application to the Authority, such approval to be conclusively evidenced by the execution and delivery thereof. The Authority understands and agrees that pursuant to the terms of the Agreement, the obligations of the Applicant may, under some circumstances be carried out or assumed by a successor or assignee entity, or by an affiliate of the Applicant.

Section 6. Each of the Authorized Signatories, acting alone, is hereby authorized and directed to do any and all ministerial acts, including (without limitation) the execution and delivery of any and all documents and certificates they may deem necessary or advisable in order to consummate the Agreement and otherwise effectuate the purposes of this resolution.

Section 7. The Applicant shall assure CAEATFA that all Qualified Property conveyance pursuant to the Agreement shall be installed, maintained and operated in compliance with all applicable local, state and federal laws.

Section 8. The Agreement shall only apply to Qualified Property that the Applicant certifies will be installed, maintained and operated at facilities within the State of California.

Section 9. The adoption by the Authority of this Resolution for the Applicant shall not be referred to in any application before any governmental agency as evidence of the feasibility, practicality or suitability of the Project or in any application for any required permission or authority to acquire, construct or operate the Project.

Section 10. This Resolution is effective immediately and will remain in full force and effect unless the Regulatory Agreement, as defined in CAEATFA Regulations Section 10035(A), is not executed within thirty (30) days of the date of this Resolution. The Executive Director may extend the thirty days if necessary.