

**CALIFORNIA ALTERNATIVE ENERGY AND
ADVANCED TRANSPORTATION FINANCING AUTHORITY**

Request to Approve Project for a Sales and Use Tax Exclusion¹

**EnergySource Minerals LLC
and its subsidiary, ESM ATLiS LLC
Application No. 22-SM016**

Tuesday, December 13, 2022

Prepared By: *Xee Moua, Program Manager*

SUMMARY

Applicant – EnergySource Minerals LLC and its subsidiary, ESM ATLiS LLC

Location – Calipatria, Imperial County

Industry – Lithium Recovery and Processing

Project – New Lithium Recovery and Processing Facility (Advanced Manufacturing)

	Recommended for Approval	Total Request
Value of Qualified Property	\$176,740,588.24	\$187,000,000
Estimated Sales and Use Tax Exclusion (“STE”) Amount ²	\$15,000,000	\$15,895,000
Estimated Net Benefit³		
Estimated Fiscal Benefits	\$24,395,897	\$25,851,614
Estimated Environmental Benefits	N/A	N/A
Total	\$24,395,897	\$25,851,614
Estimated Quantifiable Net Benefit	\$9,395,897	\$9,956,614

	Points Earned
Estimated Fiscal Benefits	1,626
Estimated Environmental Benefits	185
Additional Benefits	220
Total	2,031

Staff Recommendation – Approval

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

² This amount is calculated based on the average statewide sales tax rate of 8.5%.

³ Applications that earn a Total Score of at least 1,000 points and an Environmental Benefits Score of over 20 points may be recommended for approval. (California Code of Regulations Title 4, Division 13, Section 10033(c)(6).)

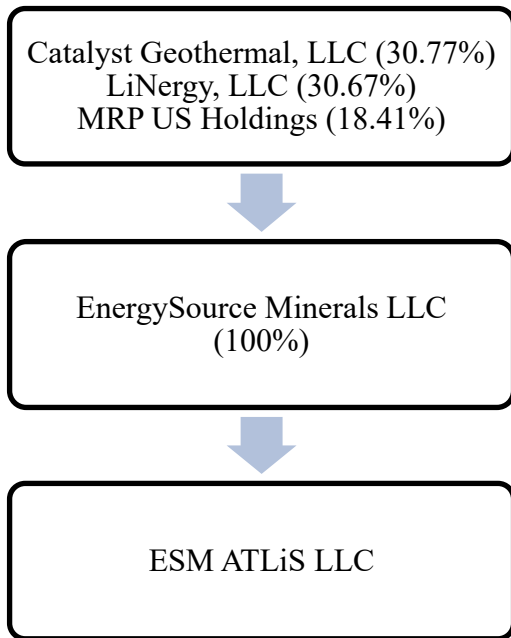
THE APPLICANT

EnergySource Minerals LLC (“ESM”) and its subsidiary, ESM ATLiS LLC (“ATLiS”) (collectively the “Applicant”) are Delaware limited liability companies that were formed in 2017 and 2021, respectively. ESM is headquartered in San Diego and engages in the advanced manufacturing, development, construction, and operation of battery-spec lithium projects and other mineral co-products from geothermal fluids produced in Imperial County. ATLiS is wholly owned by ESM and was formed to help manage a mineral recovery operation that extracts lithium and other minerals from geothermal brine; the project described below.

ESM received an income tax credit under the California Competes Tax Credit Program⁴ administered by the Governor’s Office of Business and Economic Development in June 2021.

ESM received a \$2.5 million grant from the California Energy Commission in February 2018.

The ownership structure of the Applicant is as follows:



The company officers of the Applicant are:

Eric Spomer, President and Chief Executive Officer
Derek Benson, Chief Operating Officer
Carmen Rene, Chief Financial Officer

⁴ California Code of Regulations, Title 10, Chapter 13, Article 1 (commencing with Section 8000).

THE PROJECT

The Applicant is requesting an STE award to build a new lithium recovery and processing facility called Project ATLiS in Calipatria (the “Project”). According to the Applicant, the Project will extract lithium and other minerals from geothermal brine that flows through the adjacent Featherstone geothermal plant. The Applicant’s mineral extraction process has been piloted since 2016 and is being deployed commercially in other projects currently. The Applicant states the intent of the Project is to produce lithium hydroxide monohydrate (“LHM”) that can be utilized in the manufacturing of electric car batteries, energy storage, cell phones, and other vital services. The Project will also research and develop techniques to extract other battery-spec materials such as manganese sulphate monohydrate and zinc to further aid decarbonization objectives.

As part of the lithium recovery process, the Applicant will deploy a process called Integrated Lithium Adsorption Desorption (ILiAD) that will allow the recovery of over 90% of the lithium entrained in the geothermal fluid produced. ILiAD consists of using advanced industry purification and crystallization techniques. According to the Applicant, its ILiAD system will lead to an overall reduction in material costs, carbon, water, and operational footprint compared to standard lithium extraction processes. Furthermore, the Applicant states the Project will utilize high-precision tools and methods such as a hydraulic manifold mechanism, and advanced materials such as lithium selective sorbent to control how lithium ions are transferred from one stream to another. The result is a greater yield of minerals with little contamination.

ANTICIPATED COSTS OF QUALIFIED PROPERTY

The anticipated Qualified Property purchases are listed below:

Brine Purification and Impurity Removal Unit	\$60,650,000
Counter Current Absorber Desorber (CCAD) System	\$21,400,000
Lithium Purification and Crystallization System	\$104,950,000
Total	<u>\$187,000,000</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 Regulatory Agreement, a finalized Project equipment list will be prepared detailing the value of the Project equipment actually acquired, and the estimated tax benefit realized pursuant to Revenue and Tax Code Section 6010.8. Variance 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 over original estimates, and other reasons. In addition, those costs may vary after closing due to increased costs, as well as common design and equipment modifications during construction, differences in equipment due to future changes in statute or regulation, or for other reasons.

TIMELINE

The Applicant expects to close construction financing at the end of 2022 and begin construction shortly after. The Applicant states the projected commercial operation date will commence at the beginning of 2025.

STATUS OF PERMITS/OTHER REQUIRED APPROVALS

According to the Applicant, its Conditional Use Permit (CUP) and certification of a full Environmental Impact Report (EIR) under the California Environmental Quality Act (CEQA) have been obtained. The Applicant's air and construction permits are expected to be secured by December 2022, and its waste discharge order with the Regional Water Quality Control Board is expected to be secured in 2023; none of these permits could have been initiated until the CUP and CEQA EIR were addressed.

PROJECT EVALUATION

PROJECT BENEFITS

The Project received a Total Score of 2,031 points, which exceeds the required 1,000-point threshold, and a total Environmental Benefits Score of 185 points, which exceeds the 20-point threshold.

- A. Fiscal Benefits (1,626 points).** The net present value of the total fiscal benefits over the lifetime of the Qualified Property is derived from the Applicant's sales and use taxes, personal income taxes paid by the firm's employees, firm taxes on profits, property taxes, and other indirect fiscal benefits of the Applicant. The total fiscal benefits amount to \$25,851,614, resulting in a Fiscal Benefits score of 1,626.
- B. Environmental Benefits (185 points).** The Project earned an Environmental Benefits Score of 185. The Applicant received points in the following categories:
 - 1. Environmental Sustainability Plan (5 of 5 points).** The Applicant has an environmental sustainability plan that states it will focus on efficiently utilizing resources, limiting waste, implementing recycling processes, and finding new uses for byproducts.
 - 2. Energy Consumption (30 of 30 points).** The Applicant anticipates the Project will result in an 80% reduction in energy consumption compared to the industry standard extraction process of hard rock mining.
 - 3. Water Use (30 of 30 points).** The Applicant anticipates the Project will result in a 75% reduction in water use relative to the industry standard extraction process of hard rock mining or large lithium settling ponds.

4. **Solid Waste (30 of 30 points).** The Applicant anticipates the Project will result in a 70% reduction in solid waste produced relative to the industry standard extraction process of hard rock mining or large lithium settling ponds by keeping unwanted material sodium salts.
 5. **Hazardous Waste (30 of 30 points).** The Applicant anticipates the Project will result in a 100% reduction in the hazardous waste produced relative to the industry standard extraction process of hard rock mining.
 6. **Air Pollutants (30 of 30 points).** The Applicant anticipates the Project will result in an 80% reduction in air pollutants produced relative to the industry standard extraction process of hard rock mining.
 7. **Other Pollutants (30 of 30 points).** The Applicant anticipates the Project will result in an 82% reduction in other pollutants produced relative to the industry standard extraction process of hard rock mining.
- C. **Additional Benefits (220 points).** Applicants may earn additional points for their Total Score. The Applicant received 255 additional points.
1. **Production Jobs (0 of 75 points).** The Applicant anticipates the Project will support a total of 60 production-related jobs at its Facility. CAEATFA estimates that approximately 4.77 of these jobs will be attributable to a marginal increase in jobs created due to the STE. Based on the amount of STE per estimated number of jobs created, the Applicant earned zero points.
 2. **Construction Jobs (30 of 75 points).** The Applicant anticipates the Project will support a total of 272 construction jobs at its Facility. CAEATFA estimates that approximately 21.6 of these jobs will be attributable to a marginal increase in jobs created due to the STE. Based on the amount of STE per estimated number of jobs created, the Applicant earned 30 points.
 3. **Unemployment (50 of 50 points).** The Applicant's Project is located in Imperial County, which has an average annual unemployment rate of 17.3%.⁵ When compared to the statewide average annual unemployment rate of 7.89%, the Project location earned the Applicant 50 points.
 4. **Research and Development Facilities (25 of 25 points).** The Applicant has verified that it has a facility located in California that performs research and development functions related to extracting and recovering lithium.

⁵ Unemployment rates are based on data available in December 2021.

5. **Workforce Partnerships (25 of 25 points)**. The Applicant has a partnership with Imperial Valley College for the purposes of assisting in the training of potential future workers.
6. **Industry Cluster (25 of 25 points)**. The industry associated with this Application has been identified by California Energy Commission as an industry cluster of the region of the Project's location.
7. **Benefits and Fringe Benefits (25 of 25 points)**. The Applicant states it provides medical, health, dental, and vision benefits, bonuses, retirement contributions, dependent care and assistance reimbursement, education reimbursement, and paid leave to its employees, earning the Applicant 25 points.
8. **Emerging Strategic Industry (40 of 40 points)**. The Project's industry, lithium recovery, is in an Emerging Strategic Industry, earning the Applicant 40 points.

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,⁶ the Applicant has paid CAEATFA an Application Fee of \$10,000 and will pay CAEATFA an Administrative Fee of up to \$350,000.

RECOMMENDATION

Staff recommends the approval of Resolution No. 22-SM016-01 for EnergySource Minerals LLC and its subsidiary, ESM ATLiS LLC's purchase of qualifying tangible personal property in an amount not to exceed \$176,740,588.24 anticipated to result in an approximate STE value of \$15,000,000.

⁶ California Code of Regulations Title 4, Division 13, Section 10036

**RESOLUTION APPROVING AND AUTHORIZING EXECUTION OF A
REGULATORY AGREEMENT WITH ENERGYSOURCE MINERALS LLC
AND ITS SUBSIDIARY, ESM ATLIS LLC**

December 13, 2022

WHEREAS, the California Alternative Energy and Advanced Transportation Financing Authority (the “Authority”) has received the Application of **EnergySource Minerals LLC and its subsidiary, ESM ATLIS LLC** (the “Applicant”) for financial assistance under the Sales and Use Tax Exclusion Program, as established in Public Resources Code Section 26011.8; and

WHEREAS, the Applicant qualifies as a Participating Party under Public Resources Code Section 26011.8 and Revenue and Taxation Code Section 6010.8; and

WHEREAS, the Applicant’s qualifying tangible personal property meets the requirements of a Project under Public Resources Code Section 26011.8 and Revenue and Taxation Code Section 6010.8 (the “Project”); and

WHEREAS, after the Authority approves an Application, the Authority enters into a Regulatory Agreement, as described in Authority Regulations Section 10035(a), with the Applicant for the Project; and

WHEREAS, the Applicant has stated the Project has an estimated cost not to exceed \$176,740,588.24 over a period of three (3) years; and

WHEREAS, the Applicant asserts 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 Project pursuant to Revenue and Taxation Code Section 6010.8; and

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

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

Section 1. The Regulatory Agreement includes a Project within the meaning of Public Resources Code Section 26003(a)(8)(B).

Section 2. The Regulatory Agreement constitutes financial assistance within the meaning of Public Resources Code Section 26003(a)(6).

Section 3. The Applicant is a participating party within the meaning of Public Resources Code Section 26003(a)(7).

Section 4. The 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 Authorized Signatories deem appropriate, provided that the amount of the qualifying tangible personal property to be purchased for the Project may not be increased above the amount approved by the Authority.

Section 5. The proposed form of the Regulatory Agreement between the Applicant and the Authority, as filed with the Authority prior to this public meeting, is hereby approved. For, on behalf and in the name of the Authority, the Authorized Signatories are hereby authorized and directed to execute, acknowledge, and deliver to the Applicant the Regulatory Agreement in substantially the form filed with or approved by the Authority.

The Regulatory Agreement may contain insertions, deletions or changes as the Authorized Signatories executing the Regulatory Agreement may require or approve, including particular information inserted in substantial conformance with the staff summary and in the Application to the Authority. The approval of the Regulatory Agreement will be conclusively evidenced by the execution and delivery of the final Regulatory Agreement.

The Authority understands and agrees that, pursuant to the terms of the Regulatory Agreement, the obligations of the Applicant, under some circumstances, may 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 to consummate the Regulatory Agreement and otherwise effectuate the purposes of this Resolution.

Section 7. The Applicant shall ensure that all of the qualifying tangible personal property acquired as part of the Project that is listed in the semi-annual reports provided to the Authority pursuant to the Regulatory Agreement will be installed, maintained and operated in compliance with all applicable local, state and federal laws.

Section 8. The Regulatory Agreement shall only apply to qualifying tangible personal property acquired as part of the Project that the Applicant certifies will be installed, maintained and operated at facilities physically located within the State of California.

Section 9. Neither the adoption by the Authority of this Resolution for the Applicant nor the Regulatory Agreement may be referred to in any application before any governmental agency as evidence of the feasibility, practicality or suitability of the Project and may not be referred to 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 is not executed within thirty (30) days of the date of this Resolution. The Executive Director may extend the thirty (30) days if necessary.