Agenda Item – 4.A.22
Resolution No. 22-SM010-01

CALIFORNIA ALTERNATIVE ENERGY AND ADVANCED TRANSPORTATION FINANCING AUTHORITY

Request to Approve Project for a Sales and Use Tax Exclusion[1]

QuantumScape Battery, Inc.
Application No. 22-SM010

Tuesday, June 21, 2022

Prepared By: *Stefani Wilde, Program Analyst*

SUMMARY

Applicant – QuantumScape Battery, Inc.

Location – San Jose, Santa Clara County

Industry – Lithium Battery Cell Manufacturing

Project – Expansion of Existing Lithium Cell Manufacturing Facility (Advanced Manufacturing)

Value of Qualified Property	Estimated Sales and Use Tax Exclusion ("STE") Amount[2]
$114,844,599	$9,761,791

Estimated Net Benefit[3]	Dollar Value	Points Earned[4]
Estimated Fiscal Benefits	$59,767,963	6,123
Estimated Environmental Benefits	N/A	185
Additional Benefits	N/A	235
Total	**$59,767,963**	**6,543**
Estimated Quantifiable Net Benefit	$50,006,172	

Competitive Criteria Score – 165

Staff Recommendation – Approval

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[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).)
[4] Dollar values and point values in the staff summary may not add up correctly due to rounding in the Application worksheet.

THE APPLICANT

QuantumScape Battery, Inc. (the "Applicant"), is a Delaware corporation that formed in 2010. The Applicant is a wholly owned subsidiary of QuantumScape Corporation, which is publicly traded on the NYSE under the symbol QS. The Applicant was founded to develop and commercialize next generation battery technology to enable long-range, low-cost electric vehicles, and a mass market electrification of transportation and other applications.

On October 17, 2017, the CAEATFA Board granted the Applicant's parent company, QuantumScape Corporation, an STE award for the purchase of up to $18,243,000 in Qualified Property for an estimated STE value of $1,536,061 to manufacture electric vehicle batteries at its facility in San Jose. The Project was completed in 2020

On March 16, 2021, the CAEATFA Board granted the Applicant's parent company, QuantumScape Corporation, an STE award for the purchase of up to $19,999,333 in Qualified Property for an estimated STE value of $1,699,943 to expand its existing electric vehicle battery manufacturing facility located in San Jose. The Project was completed in 2022.

The major shareholders (10% or greater) of QuantumScape Corporation are:

Volkswagen Group of America (20%)

The corporate officers of the Applicant are:

Jagdeep Singh, Chief Executive Officer
Kevin Hettrich, Chief Financial Officer
Michael McCarthy, Chief Legal Officer and Head of Corporate Development

THE PROJECT

QuantumScape Battery, Inc., is requesting an STE award to build a continuous flow pre-pilot production line ("QS-0 line") for its lithium batteries located in San Jose (the "Project").

The Applicant has been conducting research and development since 2014 at its original facility and has recently leased four other facilities to scale-up from its engineering line, to accommodate its automated QS-0 line. This QS-0 line is being created in part to produce large quantities of samples which are required to test and tune systems and processes for its solid-state battery development technology. The Applicant states it intends to mass produce prototype cells for its customers. Those cells will then be placed into hundreds of long-range test vehicles.

The Applicant states that in addition to the sample production portion of the process, the QS-0 line will continue to serve as a platform for continued production process development. It will also assist with increasing production volumes and will also allow the Applicant's highly skilled development team to continue to improve its product performance and quality.

According to the Applicant, its proprietary advanced materials and battery cells are capable of storing significantly more energy per unit mass and volume than the industry standard. The Applicant explains it uses integrated computational materials engineering and an advanced

workforce to develop and model the physics behind its battery cells. The Applicant states that because this technology requires fewer materials to store an equivalent amount of energy, the Project will require fewer resources, including raw materials, tools, energy, and solvents, and will produce a lighter battery system to improve the range of electric vehicles.

ANTICIPATED COSTS OF QUALIFIED PROPERTY

The anticipated Qualified Property purchases are listed below:

Automated pre-conditioning of cathode goods	$1,500,000
Automated pre-conditioning of cells for testing	$2,000,000
Automated transfer of sintered goods	$10,318,660
Automated transfer of unfinished goods	$4,000,000
Production Equipment Cell Assembly	$16,043,478
Production Equipment Cell Testing	$5,000,000
Production Equipment Characterization and Analysis	$5,165,000
Production Equipment Casting	$2,834,500
Production Equipment Cathode preparation	$6,000,000
Production Equipment Catholyte Coater	$2,000,000
Production Equipment Coating	$2,247,000
Production Equipment Cutting	$4,661,993
Production Equipment Sealing tool	$1,000,000
Production Equipment Slitting	$2,477,500
Production Equipment Stacker	$21,750,000
Production Equipment Heat treatment	$15,465,223
Production Equipment Mixing materials	$6,281,245
Storage and inventory management	$6,100,000
Total	**$114,844,599**

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 states it has leased four facilities in San Jose for a total of approximately 420,000 square feet that it anticipates outfitting for its QS-0 line as well as lab space for additional research and development. The Phase 1 build out was completed in December 2021. The Phase 2 build out is scheduled to begin in the first quarter of 2022. The Applicant anticipates beginning

to place the Qualified Property in service beginning in the second quarter of 2022, with completion scheduled for the second quarter of 2023.

STATUS OF PERMITS/OTHER REQUIRED APPROVALS

The Applicant states it will begin the permitting process for all required permits, which includes hazardous materials, hazardous waste materials, and air permits approximately three to four months before the Qualified Property is received at its facilities.

COMPETITVE CRITERIA SCORE

The Applicant received 165 Competitive Criteria points as follows:

1. **Environmental Benefits (0 of 100 points).** The Application does not have a Recycled Resource Extraction Project or Project that produces an Advanced Transportation Technology or an Alternative Source product, component, or system. Therefore, no points are awarded.

2. **Unemployment (0 of 50 points).** The Applicant's Facilities are located in Santa Clara County, which has an average annual unemployment rate of 4.9%.[5] When compared to the statewide average annual unemployment rate of 7.89%, the Project location earned the Applicant zero points.

3. **Job Creation (75 of 75 points).** The Applicant anticipates the Project will support a total of 550 production-related jobs at its Facilities. CAEATFA estimates that approximately 537 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 75 points.

4. **California Headquarters (15 of 15 points)**. The Applicant has a California Corporate Headquarters, and, therefore, 15 points are awarded.

5. **Natural Disaster Relief (0 of 50 points).** The Project is not to rebuild or relocate the Applicant's Facilities due to a fire, flood, storm, or earthquake identified in a state of emergency proclaimed by the Governor within two years of the time of application, and, therefore, zero points are awarded.

6. **Eligibility for Manufacturing and Research and Development Equipment Exemption (0 of 50 points).** The Applicant is eligible to use one or more of the exemptions established pursuant to Section 6377.1 of the Revenue and Taxation Code, and, therefore, zero points are awarded.

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

7. **Emerging Strategic Industry (75 of 75 points).** The Project's industry, lithium battery storage, is in an Emerging Strategic Industry, and, therefore, 75 points are awarded.

PROJECT EVALUATION

PROJECT BENEFITS

The Project received a Total Score of 6,543 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 (6,123 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 $59,767,963, resulting in a Fiscal Benefits score of 6,123.

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 it states will track water, electricity, industrial gas, and waste to reduce emissions and the consumption of energy and raw materials.

2. **Energy Consumption (30 of 30 points).** The Applicant anticipates the Project will result in a 33% reduction in energy consumption compared to the industry standard manufacturing process due to the higher gravimetric energy density in its battery cells compared to industry standards.

3. **Water Use (30 of 30 points).** The Applicant anticipates the Project will result in a 33% reduction in water use relative to the industry standard manufacturing process by eliminating the need for an anode and its associated materials and processes.

4. **Solid Waste (30 of 30 points).** The Applicant anticipates the Project will result in a 33% reduction in solid waste produced relative to the industry standard manufacturing process by eliminating material used in manufacturing as a result of the higher gravimetric energy density in its battery cells compared to industry standards.

5. **Hazardous Waste (30 of 30 points).** The Applicant anticipates the Project will result in a 33% reduction in hazardous waste produced relative to the industry standard manufacturing process. The Applicant explains that the

industry standard for lithium batteries uses two electrode mixing, coating, drying, and slitting lines, while the Applicant's system eliminates the need for one of those lines.

6. **Air Pollutants (30 of 30 points).** The Applicant anticipates the Project will result in a 33% reduction in the emission of air pollutants produced relative to the industry standard manufacturing process. The Applicant explains the higher gravimetric energy density in its battery cells compared to industry standards reduces the emissions of air pollution, such as solvent evaporation, per unit of output.

7. **Other Pollutants (30 of 30 points).** The Applicant anticipates the Project will result in a 33% reduction in other pollutants produced relative to the industry standard manufacturing process. The Applicant explains the higher gravimetric energy density in its battery cells compared to industry standards reduces the amount of pollution per unit of output.

C. Additional Benefits (235 points). Applicants may earn additional points for their Total Score. The Applicant received 235 additional points.

1. **Production Jobs (75 of 75 points).** The Applicant anticipates the Project will support a total of 550 production-related jobs at its Facilities. CAEATFA estimates that approximately 537 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 75 points.

2. **Construction Jobs (45 of 75 points).** The Applicant anticipates the Project will support a total of 60 construction jobs at its Facilities. CAEATFA estimates that approximately 58.6 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 45 points.

3. **Unemployment (0 of 50 points).** The Applicant's Project is located in Santa Clara County, which has an average annual unemployment rate of 4.9%. When compared to the statewide average annual unemployment rate of 7.89%, the Project location earned the Applicant zero 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 the development of materials and manufacturing for high energy density batteries.

5. **Industry Cluster (25 of 25 points).** The industry associated with this Application has been identified by the California State Assembly Committee on Jobs, Economic Development, and the Economy as an industry cluster of the region of the Project's location.

6. **Benefits and Fringe Benefits (25 of 25 Points).** The Applicant states it provides medical, health, dental, vision, bonuses, dependent care and assistance reimbursement, education reimbursement, and paid leave benefits to its employees, earning the Applicant 25 points.

7. **Emerging Strategic Industry (40 of 40 points).** The Project's industry, lithium battery storage, is in an Emerging Strategic Industry, and, therefore, 40 points are awarded.

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-SM010-01 for QuantumScape Battery, Inc.'s purchase of qualifying tangible personal property in an amount not to exceed $114,844,599, anticipated to result in an approximate STE value of $9,761,791.

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

RESOLUTION APPROVING AND AUTHORIZING EXECUTION OF A REGULATORY AGREEMENT WITH QUANTUMSCAPE BATTERY, INC.

June 21, 2022

WHEREAS, the California Alternative Energy and Advanced Transportation Financing Authority (the "Authority") has received the Application of **QuantumScape Battery, Inc.** (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 $114,844,599 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.