

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

Request to Approve Project for a Sales and Use Tax Exclusion¹

**BHE Renewables, LLC, and its subsidiaries Magma Power Company
and CE Generation, LLC
Application No. 22-SM019**

Tuesday, June 21, 2022

Prepared By: *Matthew Jumps, Program Analyst*

SUMMARY

Applicant – BHE Renewables, LLC, and its subsidiaries Magma Power Company and CE Generation, LLC

Location – Calipatria, Imperial County

Industry – Geothermal Steam Production

Project – New Geothermal Steam Production Facility (Alternative Source)

Value of Qualified Property	Estimated Sales and Use Tax Exclusion (“STE”) Amount ²
\$188,422,290	\$16,015,895

Estimated Net Benefit ³	Dollar Value	Points Earned ⁴
Estimated Fiscal Benefits	\$21,719,219	1,356
Estimated Environmental Benefits	\$9,631,034	601
Additional Benefits	N/A	205
Total	\$31,350,252	2,162
Estimated Quantifiable Net Benefit	\$15,334,358	

Competitive Criteria Score – 225

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).)

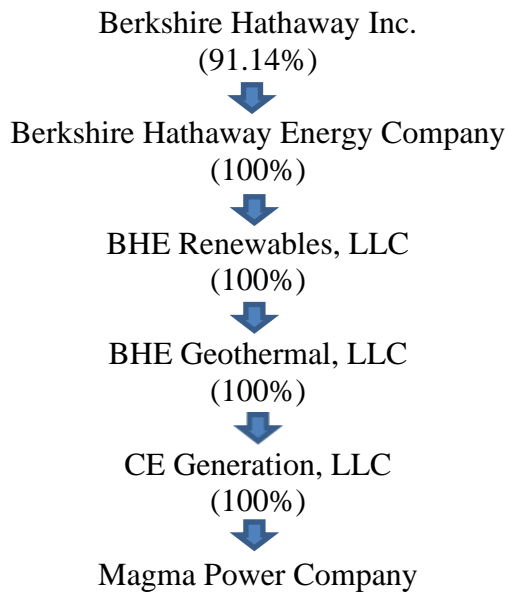
⁴ Dollar values and point values in the staff summary may not add up correctly due to rounding in the Application worksheet.

THE APPLICANT

BHE Renewables, LLC, and its subsidiaries Magma Power Company and CE Generation, LLC (the “Applicant”), are Delaware and Nevada companies that formed in 2011, 1981, and 1999 respectively. The Applicant are all subsidiaries of Berkshire Hathaway Inc., a publicly traded company on the NSYE under the symbol BRK.A. The Applicant has its corporate headquarters in Urbandale, Iowa.

On August 29, 2011, the CAEATFA Board granted a subsidiary, CE Obsidian Energy, LLC, of the Applicant’s parent company, Berkshire Hathaway, Inc., an STE award for the purchase of up to \$174,453,978 in Qualified Property for an estimated STE value of \$14,130,772 to construct a geothermal power project in Imperial County. CE Obsidian Energy, LLC, did not make any Qualified Property purchases and its Regulatory Agreement with CAEATFA ended on December 31, 2019.

The ownership structure of the Applicant is:



The corporate officers of the Applicant are:
Alicia Knapp, President, CEO and Manager
Thomas W. Cross, VP, CFO, Treasurer, and Manager
Thomas J. Budler, Senior VP
Jake S. Anonson, VP
Alan Brown, VP
Jennifer L. Cavanagh, VP
Jeffery B. Erb, Secretary
Robert Bernsten, Manager and Senior VP, General Counsel and Assistant Secretary
Jonathan D. Hale, VP of Taxation
Matthew A. Mitchell, VP
Eric J. Smith, VP
Bryan Whitcomb, VP of Geothermal and Solar Ops
Eric Bowen, VP of Wind and Gas Ops
James C. Galt, AVP and Assistant Treasurer

THE PROJECT

BHE Renewables, LLC, and its subsidiaries Magma Power Company and CE Generation, LLC are requesting an STE award to build a new geothermal steam production facility located in Calipatria (the “Project”). The Applicant plans to construct a steam Resource Production Facility (“RPF”), which will use production and injection wells to produce geothermal brine from the Salton Sea Known Geothermal Resource Area (“Salton Sea”). The RPF will use a flash steam design to produce both geothermal brine and steam. Once extracted, the steam will be used as an alternative source fuel to generate electricity at a Power Generator Facility (“PGF”). The PGF will use a three-pressure geothermal steam turbine and generator to produce a gross generation of

81.9 megawatts. The geothermal brine will be transported from the RPF via cross-country pipelines to injection wells to recharge the geothermal reservoir in the Salton Sea. According to the Applicant, CalEnergy, a subsidiary of the Applicant's parent company, holds the appropriate minerals rights and surface rights for the RPF and PGF as well as access rights for the RPF's planned wells and pipelines.

Consistent with CAEATFA policy, the Qualified Property in this Application will be used to manufacture geothermal steam; the Qualified Property also includes a portion of the power generation equipment used to power the facility. The Project's equipment will consume approximately 10 percent of the total amount of available energy generated from the geothermal steam; therefore, 10 percent of the power generation equipment is eligible for a sales and use tax exclusion. However, 90 percent of the power generation equipment cost is not included in this Application, as it represents the proportion of available energy in the form of electricity.

The Project will also provide geothermal brine to a lithium recovery facility, which is also before the Board for consideration for an STE award at the June board meeting. That project will use geothermal brine produced from the Applicant's existing geothermal facilities and this new facility in the Salton Sea to recover battery-grade lithium carbonate monohydrate to be used in lithium-ion batteries for zero-emissions vehicles.

ANTICIPATED COSTS OF QUALIFIED PROPERTY

The anticipated Qualified Property purchases are listed below:

Turbine Generator, Electrical, Instrumentation, Cooling Tower, and Condenser	\$23,343,440
Vessels, Tanks, Pumps, and Valves	\$64,822,675
Piping and Well Equipment	\$100,256,175
Total	\$188,422,290

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

According to the Applicant, the site for the Project is currently undergoing biological and archeological field studies. The Applicant states that power purchase agreement meetings are currently taking place. The Applicant has submitted an interconnection request to the Imperial

Irrigation District and a transmission service request was submitted on January 10, 2022. The Applicant states that Qualified Property purchases, specifically equipment with long-lead times, will begin in July of 2023 and continue through March 2025. The Applicant plans to commence construction in 2024, with a target date of December 31, 2026, for the facility to come on-line.

STATUS OF PERMITS/OTHER REQUIRED APPROVALS

According to the Applicant, the Project will require multiple certifications and permits, including an Application for Certification from the California Energy Commission, a permit from the Imperial County Air Pollution Control District, an Imperial County Conditional Use Permit, and a Water Quality Control Board Waste Discharge Permit. The Applicant expects to have all permits by first quarter of 2024.

COMPETITIVE CRITERIA SCORE

The Applicant received 225 Competitive Criteria points as follows:

1. **Environmental Benefits (100 of 100 points)**. The Application has a Project that produces an Alternative Source product, component, or system, and, therefore, 100 points are awarded.
2. **Unemployment (50 of 50 points)**. The Applicant's Project's Facility 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.
3. **Job Creation (0 of 75 points)**. The Applicant anticipates the Project will support a total of 37 production-related jobs at its Facility. CAEATFA estimates that approximately 4.71 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.
4. **California Headquarters (0 of 15 points)**. The Applicant does not have a California Corporate Headquarters, and, therefore, zero points are awarded.
5. **Natural Disaster Relief (0 of 50 points)**. The Project is not to rebuild or relocate the Applicant's Facility 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

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

exemptions established pursuant to Section 6377.1 of the Revenue and Taxation Code, and, therefore, zero points are awarded.

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

PROJECT EVALUATION

PROJECT BENEFITS

The Project received a Total Score of 2,162 points, which exceeds the required 1,000-point threshold, and a total Environmental Benefits Score of 601 points, which exceeds the 20-point threshold.

- A. **Fiscal Benefits (1,356 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 \$21,719,219, resulting in a Fiscal Benefits score of 1,356.
- B. **Environmental Benefits (601 points)**. The Project is anticipated to result in \$9,631,034 of total pollution benefits over the life of the Project, resulting in an Environmental Benefits Score of 601 points. These benefits derive from the extraction of geothermal brine, which offsets the need for fossil fuel derived sources of energy.
- C. **Additional Benefits (205 points)**. Applicants may earn additional points for their Total Score. The Applicant received 205 additional points.
 1. **Production Jobs (0 of 75 points)**. The Applicant anticipates the Project will support a total of 37 production-related jobs at its Facility. CAEATFA estimates that approximately 4.71 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 (40 of 75 points)**. The Applicant anticipates the Project will support a total of 565 construction jobs at its Facility. CAEATFA estimates that approximately 71.95 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 40 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%.

When compared to the statewide average annual unemployment rate of 7.89%, the Project location earned the Applicant 50 points.

4. **Workforce Partnerships (25 of 25 points)**. The Applicant has a partnership with Imperial Valley College for the purpose of workforce development for geothermal power operations at the Salton Sea Known Geothermal Resource Area.
5. **Industry Cluster (25 of 25 points)**. The industry associated with this Application has been identified by Lithium Valley Commission as a strategic 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, retirement contributions, profit sharing, education reimbursement, employee discounts, and paid leave benefits to its employees, earning the Applicant 25 points.
7. **Emerging Strategic Industry (40 of 40 points)**. The Project's industry, geothermal steam production, 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.

FINDINGS OF EXTRAORDINARY CIRCUMSTANCES AND OF PUBLIC INTEREST

As mentioned above, the Project is in conjunction with a new lithium recovery facility. This Project will provide geothermal brine to the lithium recovery facility for the extraction of lithium from the geothermal brine. Due to the long-term nature of the Applicant's geothermal and lithium recovery projects in the Lithium Valley, the Applicant is requesting to extend the 15% purchase requirement timeframe by 18 months and is requesting to extend the initial term of the Regulatory Agreement ("Agreement") by 18 months and six days.

The CAEATFA Board can extend the 15% purchase requirement timeframe upon a finding of extraordinary circumstances and that an extension is in the public interest and advances the purposes of the STE Program.⁶ The CAEATFA Board can extend the initial term of the Agreement upon a finding that an extension is in the public interest and advances the purposes of the STE Program.⁷

⁶ California Code of Regulations Title 4, Division 13, Section 10035(b)(1)(A)

⁷ California Code of Regulations Title 4, Division 13, Section 10035(b)(1)(B)

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Unlike other geothermal resources, the Project consists of hot, mineral rich brine, the harsh characteristics of which involve unique regulatory and engineering challenges. Additionally, the Applicant anticipates the instability of the current equipment supply-chain will extend purchasing timelines. As a result, the timeframe for developing the geothermal resources and completing the Project will be longer than the Program's standard requirements. However, because of the Project's interconnection with the new lithium recovery facility that is before the Board for consideration under Agenda Item 4.A.4, the Applicant is seeking an STE award at this time.

Based on the information presented, and in light of the anticipated benefits of the Project, Staff believes these are extraordinary circumstances and that granting the extensions is in the public interest and advances the purposes of the STE Program

CAEATFA FEES

In accordance with CAEATFA regulations,⁸ 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-SM019-01 for BHE Renewables, LLC, and its subsidiaries Magma Power Company and CE Generation, LLC's purchase of qualifying tangible personal property in an amount not to exceed \$188,422,290 anticipated to result in an approximate STE value of \$16,015,895.

Staff recommends that the Board approve the Applicant's request to extend the 15% purchase requirement timeframe by 18 months, until June 21, 2025, as the Applicant has demonstrated extraordinary circumstances and it is in the public interest and advances the purposes of the STE Program.

Staff recommends that the Board approve the Applicant's request to extend the initial term of the Agreement by 18 months and six days, until December 31, 2026, as it is in the public interest and advances the purposes of the STE Program.

⁸ California Code of Regulations Title 4, Division 13, Section 10036.

**RESOLUTION APPROVING AND AUTHORIZING EXECUTION OF A
REGULATORY AGREEMENT WITH BHE RENEWABLES, LLC, AND ITS
SUBSIDIARIES MAGMA POWER COMPANY AND CE GENERATION, LLC**

June 21, 2022

WHEREAS, the California Alternative Energy and Advanced Transportation Financing Authority (the “Authority”) has received the Application of **BHE Renewables, LLC, and its subsidiaries Magma Power Company and CE Generation, 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, within 18 months of approval by the Authority, the Applicant must purchase or execute purchase orders for at least 15% of the total amount of Qualified Property listed in the approval resolution (STE Program regulations Section 10035(b)(1)); and

WHEREAS, upon a finding of extraordinary circumstances and that it is in the public interest and advances the purposes of the Program, the Authority may waive the requirement that the Applicant must purchase or execute purchase orders for at least 15% of the total amount of Qualified Property within 18 months of Application approval (STE Program regulations Section 10035(b)(1)(A)); and

WHEREAS, the Applicant has requested a waiver of the requirement to purchase or execute purchase orders for at least 15% of the Qualified Property amount within 18 months, extending the term by 18 months to June 21, 2025; and

WHEREAS, the Applicant has demonstrated extraordinary circumstances as to why it cannot meet the 18-month 15% purchase requirement timeframe; and

WHEREAS, within three (3) years of approval by the Authority, the Applicant must make all Qualified Property purchases (STE Program regulations Section 10035(b)(1)); and

WHEREAS, upon a finding that it is in the public interest and advances the purposes of the Program, the Authority may waive the requirement that all purchases of Qualified Property be made within three (3) years of Application approval (STE Program regulations Section 10035(b)(1)(B)); and

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WHEREAS, the granting the waiver will allow the Project to proceed and the state to receive the anticipated environmental and economic benefits of the Project, thereby advancing both the public interest and the purposes of the STE Program; and

WHEREAS, the Applicant has requested the Authority enter into the Agreement to acquire Project equipment with an estimated cost not to exceed \$188,422,290 over a period of four (4) years, six (6) months, and six (6) days; 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.

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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. Authority finds these are extraordinary circumstances and that it is in the public interest and advances the purposes of the Program to extend the Applicant's deadline to meet the 15% purchase requirement to June 21, 2025.

Section 11. The Authority finds that it is in the public interest and advances the purposes of the Program to extend the Applicant's initial term of the Regulatory Agreement to December 31, 2026.

Section 12. 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.