

**DOCKETED**

<b>Docket Number:</b>	21-AFC-02
<b>Project Title:</b>	Gem Energy Storage Center
<b>TN #:</b>	242326
<b>Document Title:</b>	CEC Notice Letter to Agencies
<b>Description:</b>	Request for Agency Participation in the Review of the GEM Energy Storage Center Project
<b>Filer:</b>	Lon Payne
<b>Organization:</b>	California Energy Commission
<b>Submitter Role:</b>	Commission Staff
<b>Submission Date:</b>	3/15/2022 9:59:52 AM
<b>Docketed Date:</b>	3/15/2022



**TO:** AGENCY DISTRIBUTION LIST

**REQUEST FOR AGENCY PARTICIPATION IN THE REVIEW OF THE GEM ENERGY STORAGE CENTER PROJECT (21-AFC-02)**

On December 1-2, 2021, GEM A-CAES LLC (applicant), a wholly owned subsidiary of Hydrostor, Inc., filed an Application for Certification (AFC) with the California Energy Commission (CEC) to construct and operate an advanced compressed air energy storage facility in Kern County. The project site is approximately one mile northeast of the community of Willow Springs and seven miles west of Rosamond. The 71-acre project site is bound on the north by Sweetser Road and on the west by Tehachapi Willow Springs Road (90th Street West) with a physical address of 8684 Sweetser Road, Rosamond. Willow Springs is roughly equidistant from the town of Tehachapi to the north and the city of Lancaster to the south. Edwards Air Force Base is to the east.

**Project Description**

The Gem Energy Storage Center (GESC or project) would be a nominal 500-megawatt (MW), 4,000 MW-hour (MWh), advanced compressed air energy storage (A-CAES) facility capable of charging and discharging daily. GESC would compress air into a purpose-built underground cavern, using electricity from the grid, most likely off-peak, excess, or surplus electricity. The heat from the air compression process would be captured and stored in an aboveground thermal storage system. The compressed air would then be stored in the cavern under the pressure of a hydrostatic head created by an onsite, aboveground water reservoir. When electricity is needed by the grid, the compressed air would be released using the hydrostatic head pressure, re-heated using the stored thermal energy, and directed through aboveground turbine-generators to produce electricity.

GESC's major equipment would consist of five all-electric air compressor trains, five 100-MW air-driven power turbine generators, heat exchangers, thermal heat storage, an underground compressed air storage cavern, an aboveground water reservoir, auxiliary aboveground support facilities, and a 10.9-mile interconnection to the existing Southern California Edison Whirlwind Substation.

If approved, the applicant anticipates it would begin construction of GESC in the second quarter of 2023, startup and testing in the second quarter of 2028, and commercial operation in the third quarter of 2028.

A copy of the AFC as well as other project information can be found on the CEC's webpage for this project at <https://www.energy.ca.gov/powerplant/caes/gem-energy-storage-center>.

### **CEC Jurisdiction and AFC Process**

The CEC has exclusive authority to certify (license) all thermal power plants (50 MW and greater) and related facilities (that is, electric transmission line) proposed for construction and operation in California. The issuance of a certificate by the CEC is in lieu of any local or state permit, and federal permit to the extent permitted by federal law. The CEC's facility licensing process carefully examines public health and safety, environmental impacts, and engineering aspects of proposed power plants and all related facilities. The CEC's licensing process has been certified by the Secretary of the Natural Resources Agency as a "certified program" under the California Environmental Quality Act Guidelines (Cal. Code Regs., tit. 14, sec. 15251(j)). As a certified program, the CEC produces several environmental and decision documents rather than an environmental impact report.

The first step in the AFC process is for the CEC to determine whether the application contains all the information required by California Code of Regulations, title 20, division 2, chapter 5, article 6, Appendix B. The CEC staff has completed its initial review of the AFC and recommended at the CEC's January 26, 2022 Business Meeting, that the AFC is incomplete, the CEC should adopt the list of deficiencies identified in the executive director's recommendation,<sup>1</sup> and the CEC should not accept the AFC as complete until the additional information specified in the recommendation is provided. The CEC adopted staff's recommendation and deemed the AFC incomplete. The CEC also directed the applicant to file information supporting an exemption from the CEC's Notice of Intention (NOI) process by February 9, 2022; directed staff to file a response to this information filing in the form of an executive director's recommendation by February 23, 2022; and assigned a committee<sup>2</sup> to oversee the GESC filing and any other proceedings arising from it. Public Resources Code section 25540.6(a) identifies which types of thermal power plants are exempted from the otherwise required 12-month NOI process and, thus, may proceed directly to the AFC process. After a review of the executive director's recommendation regarding an exemption from the NOI process, and prior to any

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1 TN 241097,

<https://efiling.energy.ca.gov/GetDocument.aspx?tn=241097&DocumentContentId=74932>

2 TN 241291,

<https://efiling.energy.ca.gov/GetDocument.aspx?tn=241291&DocumentContentId=75201>

action on the matter by the CEC, the committee may hold a hearing on the matter or issue its own recommendation.

If the CEC determines the facility qualifies for an exemption from the NOI process and once the CEC finds the AFC complete, the 12-month clock to reach a decision on the AFC as required under Public Resources Code section 25540.6 will begin. At that time, CEC staff will begin the discovery phase of the proceeding, and a detailed examination of the application will commence.

The CEC staff will prepare and publish both a Preliminary Staff Assessment (PSA) and a Final Staff Assessment (FSA). After allowing for a public comment period on the PSA (of at least 30 days) and holding public workshop(s), staff will prepare and publish the FSA, which will serve as staff's formal testimony in evidentiary hearings to be held by the committee. The committee will consider testimony presented by staff, the applicant, and any formal intervenors, as well as comments from interested agencies and the public, prior to publishing its proposed decision. The CEC will consider the committee's proposed decision and issue the final decision. The CEC will issue notices for workshops and hearings at least 10 days prior to each meeting.

As part of the review process, the CEC staff works closely with local, state, and federal agencies to ensure that all laws, ordinances, regulations, and standards applicable to the proposed project are considered in the CEC's final decision.

### **Agency Participation**

To ensure that the CEC has the information needed to make a decision, the CEC's regulations identify a special role for federal, state, and local agencies (See, Cal. Code Regs., tit. 20, secs. 1714, 1714.5, 1742, and 1744). As a result, we request that you conduct a review of the AFC and provide us with the following information:

- 1) A discussion of those aspects of the proposed site and related facilities for which your agency would have jurisdiction but for the exclusive jurisdiction of the CEC to certify those sites and related facilities.
- 2) A determination of the completeness of the list in the AFC of the laws, regulations, ordinances, or standards that your agency administers or enforces and would be applicable to the proposed site and related facilities but for the CEC's exclusive jurisdiction.
- 3) A description of the nature and scope of the requirements that the applicant would need to meet to satisfy the substantive requirements of your agency but for the CEC's exclusive jurisdiction, and an identification

of any analyses that the CEC should perform to determine whether these substantive requirements can be met.

- 4) An analysis of whether there is a reasonable likelihood that the proposed project will be able to comply with your agency's applicable substantive requirements.

The scope of your agency's comments on the AFC should encompass *significant* concerns and substantive requirements that would be required for permitting by your agency but for the CEC's exclusive jurisdiction or certification (Cal. Code Regs., tit. 20, sec. 1714.5(a)(2); emphasis added). Please let us know if you need additional information or need to perform analyses or studies to resolve any concerns of your agency (Cal. Code Regs., tit. 20, sec. 1714.5).

Unless otherwise specified by law or by order of the committee, all such comments shall be filed prior to the conclusion of the evidentiary hearings held pursuant to California Code of Regulations, title 20, section 1745 on the application. As required by California Code of Regulations, title 20, section 1744.5, the local air district is required to submit to the CEC the determination of compliance within 180 days of the CEC's acceptance of the AFC. The local air district is required to provide a witness at the evidentiary hearings held pursuant to California Code of Regulations, title 20, section 1745 to present and explain the determination of compliance (Cal. Code Regs., tit. 20, sec. 1744.5(c)). Other agencies may be asked to present and explain their conclusions at the evidentiary hearings on the project. After the AFC is accepted as complete, the committee will file a Scheduling Order for the proceeding.

Local agencies may seek reimbursement for reasonable costs incurred in responding to these requests. (Cal. Code Regs., tit. 20, sec. 1715).<sup>3</sup>

To stay informed about this project and receive notice of upcoming meetings and workshops, please subscribe to the project list serve. The list serve is an automated CEC system that sends out email notifications when documents and notices are posted to the project's docket. To subscribe, go to the CEC's webpage for this project, at <https://www.energy.ca.gov/powerplant/caes/gem-energy-storage-center>, scroll down the right side of the webpage to the box labeled "Subscribe," and provide the requested contact information.

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<sup>3</sup> Because the application is still being reviewed for completeness and confirmation that an AFC is appropriate at this time, this letter is not a formal request for review for the purposes of California Code of Regulations, title 20, section 1715(c)(2). Please note that California Code of Regulations, title 20, section 1715 applies to the reimbursement of local agencies only.

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Any person may comment on the application. The CEC encourages the use of its electronic commenting system. To use the CEC's electronic commenting feature, go to the CEC's webpage for this project, cited above, click on the "Submit e-Comment" link on the right side of the webpage, and follow the instructions in the online form. Be sure to include the project name in your comments.

Written and oral comments, attachments, and associated contact information (for example, address, phone number, email address) become part of the viewable public record. This information may also become available via any internet search engine.

Written comments may also be mailed to:

California Energy Commission  
Docket Unit, MS-4  
Docket No. **21-AFC-02**  
715 P Street  
Sacramento, California 95814-5512

For questions about this letter or the project, please contact Leonidas Payne, project manager, at (916) 838-2124, or by email at [leonidas.payne@energy.ca.gov](mailto:leonidas.payne@energy.ca.gov).

Sincerely,



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Drew Bohan  
Executive Director

Date: March 15, 2022

Enclosures (from the application):  
Project Site and Facilities Map (Figure 1-4)  
Project Rendering (Figure 1-2)

Mailed to: Agency list (21-AFC-02)



