

DOCKETED	
Docket Number:	21-AFC-02
Project Title:	Willow Rock Energy Storage Center
TN #:	258495
Document Title:	ROC - Lahontan Regional Water Quality Control Board (RWQCB) Staff Review and Comments
Description:	Report of Conversation
Filer:	Marichka Haws
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	8/14/2024 10:43:13 AM
Docketed Date:	8/14/2024



*Siting, Transmission
 and Environmental
 Protection Division*

FILE: n/a

PROJECT TITLE: Willow Rock Energy Center **Docket:** 21-AFC-02

TECHNICAL AREA(s): Water Resources			
<input type="checkbox"/> Telephone	<input checked="" type="checkbox"/> Email	<input type="checkbox"/> Meeting Location:	
Name:	Adam White	DATE:	08/07/2024
From:	Jan Zimmerman, PG Supervising Engineering Geologist		
SUBJECT:	Lahontan Regional Water Quality Control Board (RWQCB) staff review and comments.		

COMMENTS: Lahontan RWQCB staff provided initial comments on the project with respect to water quality, what permitting requirements might be applicable, and additional information needed to complete application evaluation.

See attached email.

<p>cc: Lon Payne, Project Manager</p>	<p>Signed:</p> <p style="text-align: center;">_____ s _____</p> <p>Name: Adam White—Associate Civil Engineer</p>
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RE: Willow Rock Energy Center Storage Project - Request for RB Comments

Zimmerman, Jan@Waterboards <jan.zimmerman@waterboards.ca.gov>

Wed 8/7/2024 5:07 PM

To: White, Adam@Energy <Adam.White@Energy.ca.gov>; Payne, Leonidas@Energy <leonidas.payne@energy.ca.gov>
Cc: Abulaban, Abdel-Karim@Energy <Abdel-Karim.Abulaban@energy.ca.gov>; Hughes, Joseph@Energy <Joseph.Hughes@energy.ca.gov>; Ackerman, James@Energy <james.ackerman@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Kelsey, Tanner@Energy <Tanner.Kelsey@energy.ca.gov>; Anderson, Kari@Energy <Kari.Anderson@Energy.ca.gov>; Giorgi, Erika@Energy <Erika.Giorgi@Energy.ca.gov>; Stroud, Andrea@Energy <Andrea.Stroud@energy.ca.gov>; Garcia, Anna@Waterboards <Anna.Garcia@Waterboards.ca.gov>; Guerra, Christina@Waterboards <Christina.Guerra@waterboards.ca.gov>; Poach, Alonzo@Waterboards <Alonzo.Poach@Waterboards.ca.gov>; Morales, John@Waterboards <john.morales@waterboards.ca.gov>; Tan, Reginald@Waterboards <Reginald.Tan@Waterboards.ca.gov>; Steinert, Tiffany@Waterboards <Tiffany.Steinert@Waterboards.ca.gov>; Taylor, Ashley@Waterboards <Ashley.Taylor@Waterboards.ca.gov>; Letton, Ben@Waterboards <Ben.Letton@waterboards.ca.gov>

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CEC team, as discussed during our meeting on July 24th I am your primary point of contact for coordination with the Regional Board for this project. I have a number of technical staff that are reviewing project documents. I would like to note for the record that the whole of the Supplemental Application was provided to us on July 24th, 10 working days prior to today.

Lahontan Regional Board staff have reviewed relevant portions of the Supplemental Application for the Willow Rock Energy Storage Center. Based on the MOA between the Regional Board and CEC, we are providing our initial comments on the project with respect to water quality, what permitting requirements might be applicable, and the additional information we need to complete our evaluation. Once the additional information we outline below has been provided, we respectfully request 30 days to complete our review and evaluation.

1. We request the Applicant provide specific end use/disposal for all liquid and solid waste streams, including but not limited to waste rock, dewatering waste, boring/drill waste, reverse osmosis reject water, cooling tower blowdown, evaporative cooler spray to atmosphere, thermal system water losses, and washdown losses. Additionally, we request the Applicant provide a full characterization (chemical composition) of all liquid waste streams. This information is necessary to determine whether we would request the Applicant to submit a Report of Waste Discharge.
2. The Supplemental Application discusses a water balance that includes additions and losses measured against the capacity of a hydrostatically compensating reservoir. Most of these losses are not shown in the process flow diagram associated with the power generation flow diagram. We request the Applicant provide a process flow diagram that consolidates the water balance and the power generation components, this would yield a more complete understanding of how the water balance correlates with the hydrostatically compensating reservoir included as a component to produce power. This information is necessary to determine whether we would request the Applicant to submit a Report of Waste Discharge.
3. The Supplemental Application describes discharge of dewatering waste during construction. We recommend that dewatering wastes be contained and reused onsite as dust control to the extent practicable. Discharges of dewatering waste to land, and other low threat discharges including boring waste and inert waste, may be subject to the requirements of General Waste Discharge Requirements for Discharges to Land with a Low Threat to Water Quality, WQO-2003-0003-DWQ. We will likely request the Applicant submit a Notice of Intent for General Waste Discharge Requirements for Discharges to Land with a Low Threat to Water Quality, WQO-2003-0003-DWQ.

4. The Jurisdictional Delineation report does not include maps of sufficient scale to identify waters of the state onsite or in the vicinity. Additionally, the report does not include field data or supporting documentation for the conclusions made regarding presence or absence of waters. We request the Applicant update this report to include appropriately scaled maps and supporting documentation (including field data sheets). This information is necessary to determine whether waters of the state are present on site and whether we will request the Applicant to submit a Report of Waste Discharge.
5. We request the Applicant provide a draft Storm Water Pollution Prevention Plan. This plan will help us better understand stormwater flow paths and capture for reuse and/or percolation, and aid in our determination whether a National Pollutant Discharge Elimination System (NPDES) permit or an individual stormwater permit would be appropriate for this project.
6. We will require the Applicant to submit a Report of Waste Discharge for the evaporation pond. This pond must be constructed, maintained, monitored, and closed in accordance with California Code of Regulations, title 27.
7. We request the Applicant provide a full characterization (chemical composition) of the water in the hydrostatic pond and the source of the water. How will the water quality of the hydrostatic pond water change over time during operation? What mitigations will be in place to ensure that this water will not come in contact with groundwater? We request the Applicant provide an operations and maintenance plan for the hydrostatic pond system. This information is necessary to determine whether sufficient mitigations are in place and whether we would request the Applicant to submit a Report of Waste Discharge.
8. Section 5.4.1.4.5 Subsidence, indicates that operation of the WRESC will not involve the installation or use of any onsite wells for any purposes, while Appendix 5.11A Yeh and Associates, Inc. (2023) Geotechnical Data Report indicates that two of the mud rotary borings, 23E-05 and 23E-11, were completed as monitoring wells. What is the purpose of these monitoring wells? Is there water quality data for these wells? What are the construction details (boring logs and well completion reports)? Will these wells be retained and monitored throughout the life of the project?
9. Section 5.15.5.1 Federal Laws, Ordinances, Regulations, and Standards notes that preliminary feedback from U.S. EPA Region IX indicates that an Underground Injection Control (UIC) Program permit may not be required if the system is a closed loop where the caverns and associated shafts from the surface to the caverns are lined such that there would be no fluid communication (either air or water) with the external environment. Please share the communications from U.S. EPA Region IX. This information is necessary for us to evaluate whether any injection activities warrant waste discharge requirements.

Please pass this information request to the Applicant. And please, let me know if you have any questions.

Thank you.

Jan Zimmerman, PG
Supervising Engineering Geologist
Lahontan Regional Water Quality Control Board
760/241-7376, desk; 760/553-4989, cell
<http://www.waterboards.ca.gov/lahontan/>

From: White, Adam@Energy <Adam.White@Energy.ca.gov>

Sent: Friday, July 19, 2024 1:33 PM

To: Zimmerman, Jan@Waterboards <jan.zimmerman@waterboards.ca.gov>

Cc: Abulaban, Abdel-Karim@Energy <Abdel-Karim.Abulaban@energy.ca.gov>; Hughes, Joseph@Energy <Joseph.Hughes@energy.ca.gov>; Ackerman, James@Energy <james.ackerman@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Payne, Leonidas@Energy <leonidas.payne@energy.ca.gov>; Stroud, Andrea@Energy <Andrea.Stroud@energy.ca.gov>; Kelsey, Tanner@Energy <Tanner.Kelsey@energy.ca.gov>; Anderson, Kari@Energy <Kari.Anderson@Energy.ca.gov>; Giorgi, Erika@Energy <Erika.Giorgi@Energy.ca.gov>

Subject: Willow Rock Energy Center Storage Project - Request for RB Comments

Importance: Low

EXTERNAL:

Hi Jan- Thank you for your patience as CEC staff held internal discussions regarding the procedural format for coordinating our request for your agency review comments for the Supplemental Application for Certification (SAFC) for this project.

The purpose of this email is to inform the California Regional Water Quality Control Board, Lahontan Region (Regional Board) staff that California Energy Commission (CEC) staff received the SAFC from Gem A-CAES LLC (applicant) for the Willow Rock Energy Center Storage (WRESC) and is requesting agency comments, pursuant to the agreement between our two agencies (MOA).

The SAFC significantly revises the original project which includes changing the location of the proposed project. The applicant is proposing to construct a 520-megawatt (MW) gross (500 MW net) and 4,160 megawatt-hour (MWh) gross (4,000 MWh net) facility using advanced compressed air energy storage technology in Kern County. Energy stored will be delivered to Southern California Edison's Whirlwind Substation and the WRESC will deploy technology consisting of all-electric air compressors and associated power turbine trains, an underground compressed air storage cavern, and miscellaneous aboveground support facilities.

Of concern to us is the applicant's assertion regarding permitting (or exemption thereof) and related water resource issues. For example, the application describes how brine waste from the reverse osmosis system will be sent to a pond as part of zero liquid discharge system, but also says no WDRs would be required for the proposed discharge. The applicant has also determined that there will not be any discharge of wastewater to surface or groundwater during construction and operation. Your review of the application is requested regarding whether the applicant's assertion is correct that no permits or WDRs would be required from the Regional Board for any part of the project described in the SAFC.

Although you may have received copies or notifications of the application previously, provided for your reference is the project link: <https://efiling.energy.ca.gov/GetDocument.aspx?tn=254806&DocumentContentId=90427>

On 7/16/2024, CEC staff filed the Executive Director's determination that the application meets the information requirements of Title 20, Appendix B and therefore the Committee overseeing the AFC proceeding should accept the AFC as complete for purposes of restarting the 12-month certification process and beginning the discovery phase of the proceeding. During this time, the parties may issue data requests to acquire any additional information needed to evaluate the impacts of the proposed project.

Please let us know if CEC technical staff should coordinate directly with you or another contact. Please submit any comments you have within 30 days, or sooner if possible. If comments cannot be provided within that time, please notify us within 10 days and provide an alternative date. Per the MOA, Part B.4, if your agency has determined application applicability, CEC staff will request the applicant file an application to the Regional Board, along with the required filing fee.

Thank you in advance for your assistance in reviewing this SAFC and look forward to continuing agency cooperation.

Adam White
Associate Civil Engineer
Geo Sciences Unit
Siting, Transmission and Environmental Protection Division

California Energy Commission
Website: www.energy.ca.gov

