

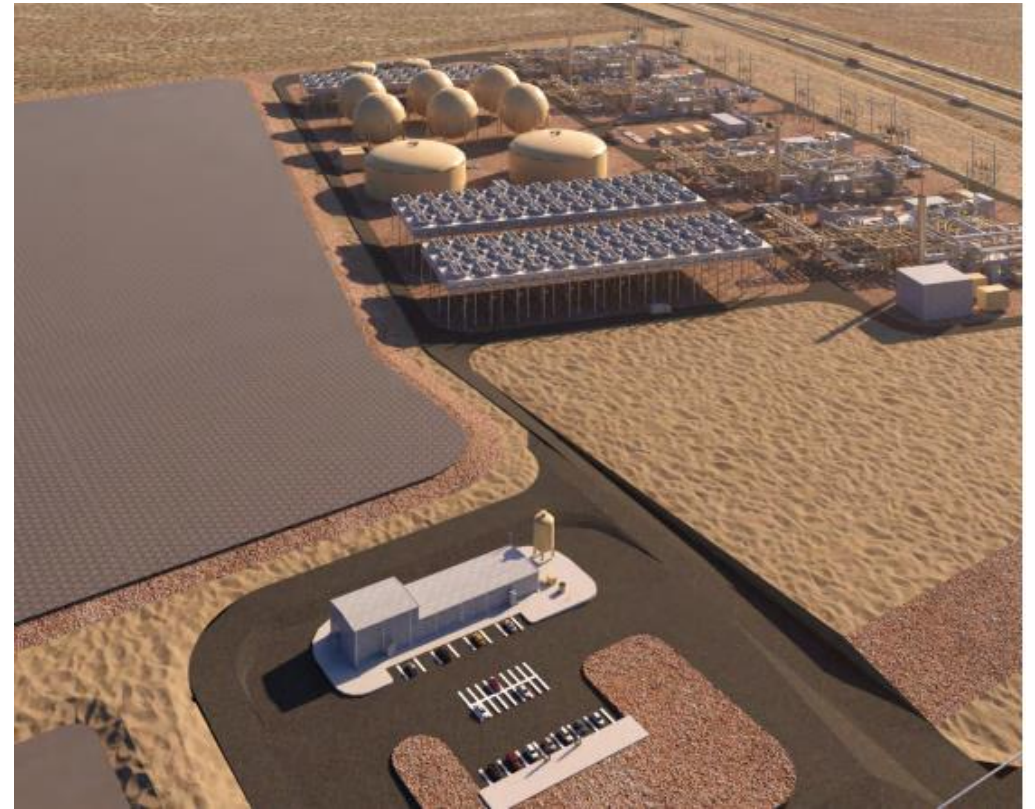
**DOCKETED**

<b>Docket Number:</b>	21-AFC-02
<b>Project Title:</b>	Willow Rock Energy Storage Center
<b>TN #:</b>	259942
<b>Document Title:</b>	Willow Rock Informational Hearing Master Slide Deck
<b>Description:</b>	Powerpoint presentation for the November 6, 2024 Informational Hearing including all parties' presentations - English
<b>Filer:</b>	Renee Webster-Hawkins
<b>Organization:</b>	California Energy Commission
<b>Submitter Role:</b>	Hearing Office
<b>Submission Date:</b>	11/7/2024 8:10:22 AM
<b>Docketed Date:</b>	11/7/2024



# Site Visit and Informational Hearing

## Willow Rock Energy Storage Center Docket Number 21-AFC-02



Rosamond Community Services District Boardroom  
3179 35th Street West  
Rosamond, California  
November 6, 2024  
3:00pm to 9:00pm



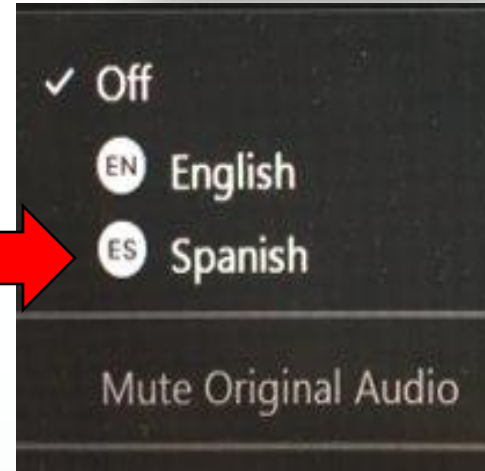
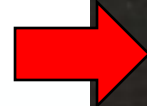
# Interpretation on Zoom

## Interpretación via Zoom

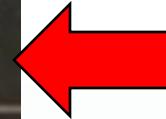
1) Click globe “Interpretation” icon.



2) Click “ES Spanish” option



3) Click “Mute Original Audio”



1) Haga clic en el icono del globo de interpretación

2) Haga clic donde dice “ES Spanish”

3) Haga clic en “Mute Original Audio”

**NOTE:** Interpreter will relate everything from English to Spanish during the meeting and will inform you when to make public comment. **Speak in Spanish and interpreter will relate comments to English.**

**NOTA:** El intérprete relacionará todo lo dicho en inglés al español durante la junta y le informará cuándo podrá hacer un comentario público. **Hable en español y el intérprete relatará sus comentarios en inglés.**



# Informational Hearing Agenda

- ➔ 1. **Welcome/ Committee's Opening Remarks/Agenda Overview**
- 2. **Presentations on CEC AFC Process**
  - a. **Hearing Officer**– Introduction & the AFC Process
  - b. **CEC Public Advisor**– Opportunities for Public & Tribal Participation
- 3. **Public Comment**
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# Welcome & Introductions

The California Energy Commission (CEC) is committed to promoting a **clean, affordable, and reliable** energy supply for all Californians.



# California Energy Commission (CEC) Commissioners & Willow Rock Committee



**David Hochschild**  
*Chair*



**Siva Gunda**  
*Vice Chair*



**J. Andrew McAllister**  
*Commissioner*



**Patty Monahan**  
*Commissioner*



**Noemí Otilia Osuna Gallardo**  
*Commissioner*

**AFC Committee assigned to this proceeding:**

**Willow Rock Committee**

Presiding Member Commissioner McAllister

Associate Member Commissioner Gallardo



# **Introductions of Representatives of Parties, Other State and Local Governments, California Native American tribes, and public officials**



# Committee's Opening Remarks





# Informational Hearing Agenda

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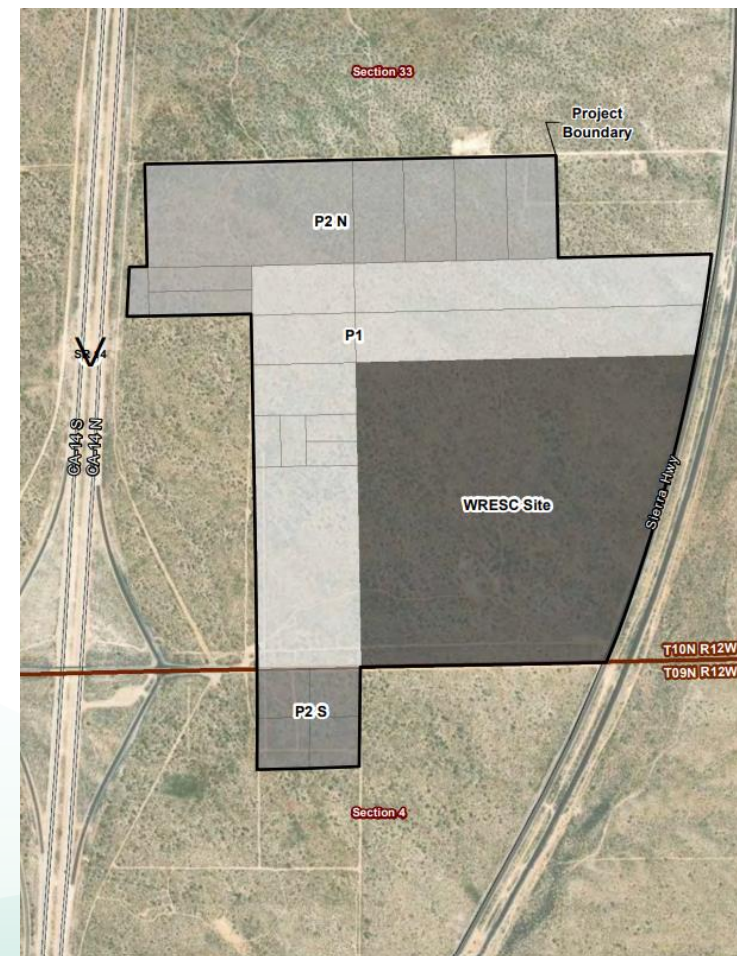


# **Presentations on the AFC Process: Hearing Officer**



# Purpose of Today's Public Event

- Provide overview of the CEC environmental review and permitting process for an Application for Certification (AFC)
- Present project proposed in the Willow Rock Supplemental AFC.
- Outline **revised** project review schedule.
- Discuss any outstanding issues.
- Provide opportunities for public participation and to ask questions.

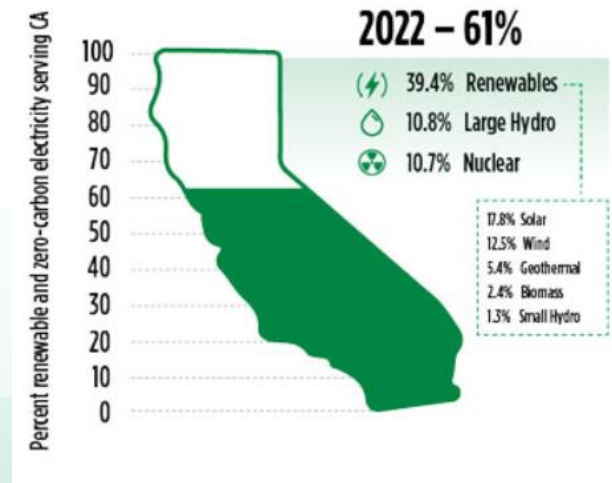




# CEC's Permitting Authority: The Warren-Alquist Act

- Lead environmental permitting authority for all thermal power plants 50 MW or greater.
- CEQA lead agency under Certified Regulatory Program.
- Review proposed project, assess the project's design, and analyze the potential adverse environmental impacts.
- Coordinate with local, state, and federal agencies to ensure these agencies permit requirements are incorporated and the project complies with those applicable state, local, or regional laws, ordinances, regulations, or standards.
- Engage in tribal consultation

## California Progress Toward 100% Clean Electricity by 2045





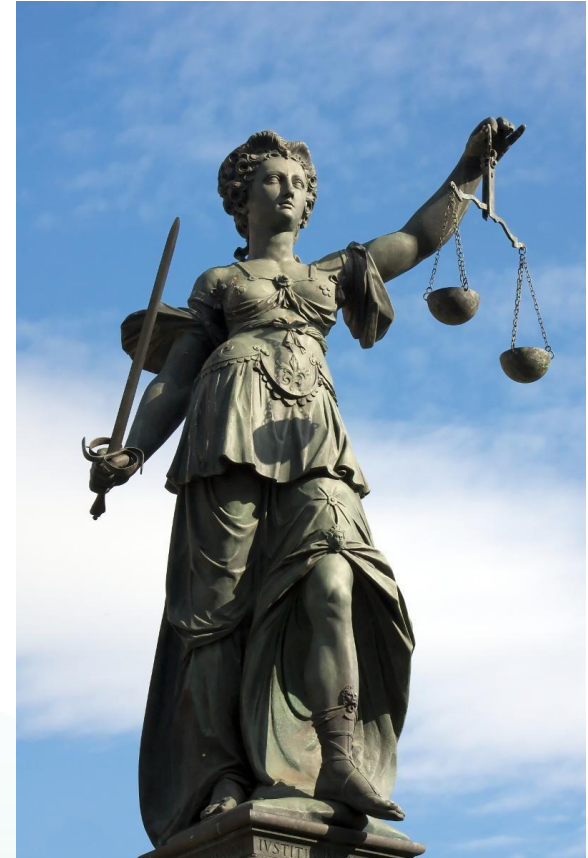
# Application for Certification (AFC) Process





# Ex Parte Rule

- All decisions made must be made solely on evidence contained in the record.
- No off-the-record communications about any issue in the proceeding between:
  - the Parties or any interested person; and
  - Commissioners, their advisors, this Committee, or the Hearing Officer.





# Willow Rock Site and Related Facilities

- Nominal 520 MW gross (500 MW net) and 4,160 MWh gross (4,000 MWh net) compressed air energy storage facility
- Hydrostor's A-CAES technology and related accessories
  - Turbine generators
  - Thermal storage system
  - 21.5 acre reservoir
  - 900,000 cubic yard underground compressed air storage cavern
- 88.6-acre portion of an approximately 112-acre parcel, north of Dawn Road and between State Route (SR) 14 and Sierra Highway
- 19 mile gen-tie to Southern California Edison Whirlwind Substation





# Revised Schedule for the Proceeding

EVENT	DATE	INTERVAL
Discovery closes	January 13, 2025	
Last day for Applicant to submit responses	February 12, 2025	30 days after Discovery closes
Staff files Preliminary Staff Assessment (PSA)	April 14, 2025	60 days after last data response
Public Comment on PSA closes	May 29, 2025	45 days after PSA filed
Staff files Final Staff Assessment (FSA)	July 14, 2025	45 days after public comment closes
Last day to file Petition to Intervene	--	7 days after FSA filed
Prehearing Conference and Evidentiary Hearing	TBD per Committee Order	--
Committee files Presiding Member's Proposed Decision (PMPD)	TBD	--
Public Comment Period Closes on PMPD	TBD	30 days after filing of the PMPD
Committee Conference on PMPD	TBD per Committee Order	--
Commission Hearing on Final Decision	TBD	--





# **Presentations on the AFC Process: CEC Public Advisor**

CEC Office of the Public Advisor, Energy Equity and Tribal Affairs



# California Energy Commission

Office of the Public Advisor, Energy Equity, and Tribal Affairs



# Office of the Public Advisor, Energy Equity and Tribal Affairs

Advise and support the CEC, stakeholders, California Native American tribes, and interested members of the public in meaningful engagement and participation in CEC programs, policies, and energy equity efforts.





# Primary Functions of the **California Energy Commission**



**Advancing State  
Energy Policy**



**Investing in  
Energy Innovation**



**Developing  
Renewable Energy**



**Preparing for  
Energy Emergencies**



**Achieving  
Energy Efficiency**



**Transforming  
Transportation**



**Overseeing  
Energy Infrastructure**



**Intergovernmental  
Collaboration**



# Multiple Ways to Participate

1. Follow
2. Comment
3. Intervene
4. Tribal Consultations





# Follow via Web, Email and Events

**Willow Rock Energy Storage Center**

This proceeding is for the certification of an energy storage project in Kern County, California.

**PROJECT OWNER**  
Hydrostor

**TECHNOLOGY**  
A-CAES

**DOCKET NUMBER**  
21-AFC-02

**PROJECT STATUS**  
Under Review

**CAPACITY**  
520 MW

**PROJECT TYPE**  
Application for Certification

**LOCATION**  
8684 Sweester Road in Rosamond, Kern County, California

**Project Description**

The Willow Rock Energy Storage Center (WRESC) is proposed compressed air storage energy storage facility by Gem A-CAES LLC (Applicant), a wholly owned subsidiary of Hydrostor, Inc.

On December 3, 2021, the Applicant filed its original Application for Certification (AFC) for the project located at 8684 Sweester Road in Rosamond, Kern County. In March 2024, the Applicant filed a Supplemental AFC for the project, changing the location to 88.6 acres of private land immediately north of Dawn Road and between State Route (SR) 14 and Sierra Highway within unincorporated Kern County, California, approximately 4 miles north of Rosamond, California. The new project site is on undeveloped land in an area zoned Limited Agriculture (A-1) District. The area surrounding the project boundary is largely undeveloped.

**ORIGINAL PROCEEDING**

- [Submit e-Comment](#)
- [Submit e-Filing](#)
- [Docket Log \(21-AFC-02\)](#)
- [Exhibit List](#)
- [Proof of Service List](#)
- [Search All Power Plant Documents](#)

**CONTACTS**

**PROJECT MANAGER**  
Leonidas Payne  
312@cep.energy.ca.gov or  
(Please enter project name in the email subject line)  
916-830-2124

**PUBLIC PARTICIPATION QUESTIONS**  
Public Advisor  
pubadv@cep.energy.ca.gov or  
916-269-9595

**MEDIA INQUIRIES**  
Media & Public Communications Office  
media@cep.energy.ca.gov or  
916-654-4389

**RELATED DOCUMENTS**

Visit CEC project webpage for links to comment, sign up for email updates, access project docket, project information, and more:  
<https://www.energy.ca.gov/powerplant/caes/willow-rock-energy-storage-center>

**Docket Log**  
Docket: 21-AFC-02  
Project Title: Willow Rock Energy Storage Center  
Generated On: 10/26/2024 3:30:16 PM

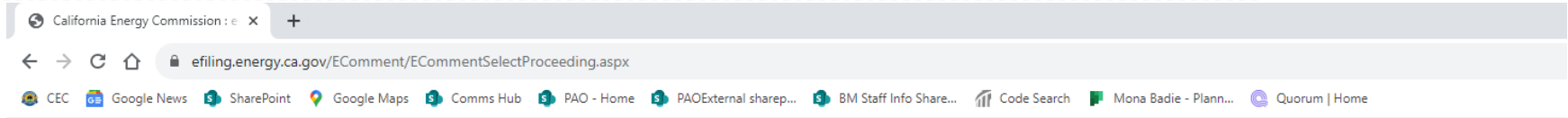
Include  Documents  Comments  Transcripts

# TN #	Docketed Date	Document Title	Exhibit #	To	From
259737	10/28/2024	Repeated Application for Confidential Designation of Biological Resources Information		CEC/Docket Unit/Drew Bohan	Elison Schneider Harris & Dorian LLP
259738	10/28/2024	Willow Rock Data Request Set 4 Response		CEC/Docket Unit	WSP USA Inc.
259714	10/25/2024	Willow Rock Energy Storage Center Supplemental AFC Status Report No 3		CEC/Docket Unit	Elison Schneider Harris & Dorian LLP
259713	10/25/2024	Willow Rock Energy Storage - CURE Status Report 3		CEC/Docket Unit	California Unions for Reliable Energy
259691	10/25/2024	Staff Status Report #3 for the Willow Rock Energy Storage Center		CEC/Docket Unit	California Energy Commission
259690	10/25/2024	Center for Biological Diversity Status Report No 2		CEC/Docket Unit	Center for Biological Diversity
259676	10/23/2024	Repeated Application for Confidential Designation for Transmission Interconnection Documents		CEC/Drew Bohan	Elison Schneider Harris & Dorian LLP
259675	10/23/2024	Willow Rock Data Request Set 3 Response		CEC/Docket Unit	WSP USA Inc.
259672	10/23/2024	CURE Issues ID Report		CEC/Docket Unit	California Unions for Reliable

Visit Docket 21-AFC-02 for free 24/7 access to project documents:  
<https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=21-AFC-02>



# Verbal and Written Comments



<https://www.energy.ca.gov/events>

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## Add Comment

Fields denoted by an asterisk (\*) are required.

Select a Proceeding \*   or [View All Projects](#)

For any questions regarding e-commenting, please send an e-mail to [e-CommentingHelp@energy.ca.gov](mailto:e-CommentingHelp@energy.ca.gov), or call 800-822-6228 or 916-654-4489.

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<https://efiling.energy.ca.gov/EComment/ECommentSelectProceeding.aspx>



# Become an Intervenor

1. Petition
2. Approval/Denial
3. Participate as a Party

California Energy Commission : D x +

eFiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=23-AFC-01

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### Docket Log

Docket: 23-AFC-01  
Project Title: Morton Bay Geothermal Project (MBGP)  
Generated On: 8/29/2023 8:26:03 PM

Include:  Documents  Comments  Transcripts

↓ TN #	Docketed Date	Document Title	Exhibit #	To	From
252014	8/28/2023	Northend Action Council Comments - Letter of Support 1 page(s)		CEC/Drew Bohan	Northend Action Council
252009	8/28/2023	Presentation - BHE Renewables Black Rock, Elmore North, & Morton Bay Geothermal Projects CEC Informational Hearing 17 page(s)		CEC/Docket Unit	Ellison Schneider Harris & Donlan LLP
251984	8/28/2023	City of Calipatria Comments - Letter of Support 1 page(s)		CEC/Andrew McAllister	City of Calipatria
251977	8/28/2023	Assemblymember Eduardo Garcia Comments - Letter of Support 1 page(s)		CEC/Drew Bohan	Assemblymember Eduardo Garcia
251966	8/28/2023	Imperial Valley Food Bank Comments - Letter of Support 1 page(s)		CEC/Docket Unit	Imperial Valley Food Bank
251963	8/28/2023	The Chamber of Commerce for Greater Brawley Comments - Letter of Support		CEC/Docket Unit	The Chamber of Commerce for Greater Brawley





# Tribal Consultation

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- The CEC invites consultations in this and other siting proceedings with California Native American tribes culturally and traditionally affiliated with the proposed project area.
- Tribal consultation letters for this project went out earlier this year.
- Contact: Gabriel Roark, Assistant Tribal Liaison  
[Gabriel.Roark@energy.ca.gov](mailto:Gabriel.Roark@energy.ca.gov) (916) 237-2544.



# Public Advisor Contact

---

## Email

publicadvisor@energy.ca.gov

## Phone

(916) 957-7910

## Online

<https://www.energy.ca.gov/about/divisions-and-offices/office-public-advisor>



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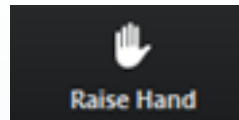
# Public Comment

## Instructions

- CEC Staff will call on speakers:
  - California Native American tribes
  - State or local agencies or public officials
  - All others
- In person first, then Zoom
- 1 representative per organization

## Zoom App/Online

- Click “raise hand”



## Telephone

- Press \*9 to raise hand
- Press \*6 to (un)mute

## When called upon

- In person: Come to the mic
- Zoom: CEC Staff will open your line, then unmute yourself
- State & spell your name, and state affiliation, if any





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# **Presentations on the Willow Rock Energy Storage Center: Applicant**

Gem A-CAES LLC



# Willow Rock Energy Storage Center: Project Overview

California Energy Commission Informational Hearing – November 2024

## Agenda

1. Hydrostor Introduction
2. A-CAES Technology Overview
3. Willow Rock – Optimized Project Location
4. Site Photos, Plot Plan, and Rendering
5. Preferred Transmission Line Route
6. Project Development Timeline
7. Local Economic Benefits
8. Optimized Project Location – Advantages & Benefits





# Curtis VanWalleghem

CEO and Co-Founder

# Hydrostor at a Glance

Founded in 2010

100+ Employees

US \$355M raised

We are a clean technology company dedicated to developing essential long duration energy storage infrastructure.

Our compressed air technology operates on a compact footprint with flexible siting to deliver utility-scale renewable energy storage capacity of eight hours or more.

## Project highlights

1

Operational project

2

Late-stage projects

15

Projects in the pipeline

7

Total pipeline capacity (GW)

## Key investors:

**Goldman Sachs**

Asset Management

**CPP Investments**

# A-CAES is a Flexible Storage Solution



## Proven Technology

Our systems use proven OEM equipment, including air compressors, turbo expanders, generators, and heat exchangers.



## 8+ Hours of Storage

A-CAES is the best positioned, commercially viable LDES solution for intraday applications



## Flexible Siting

A higher geographic breadth of deployment is enabled by purpose-built, hydrostatically compensated rock caverns



## Low-cost, Large Scale

A utility-scale LDES solution available today providing 500+ MWs of storage



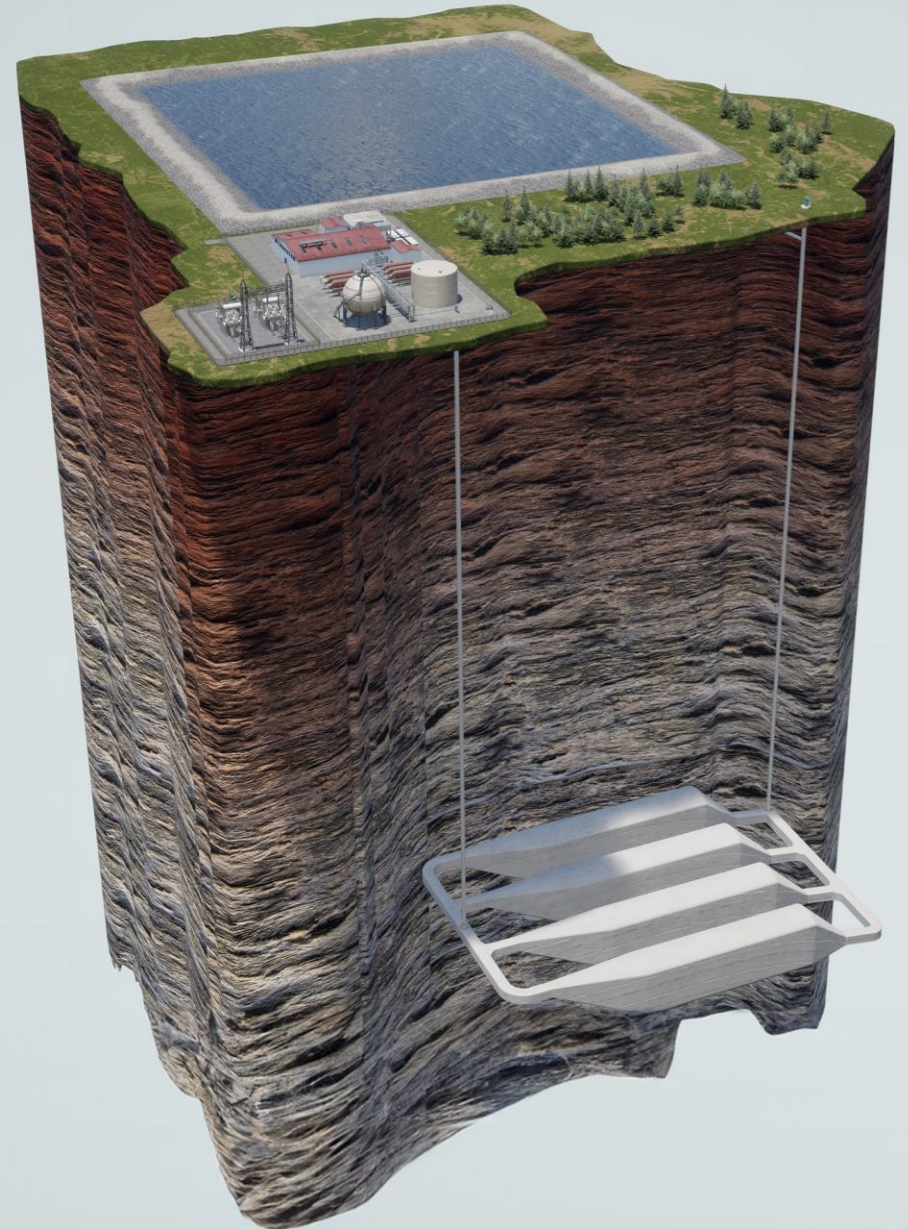
## Emission-free Operation

Allows renewable resources to be integrated onto the grid, without sacrificing reliability, as fossil fuel is replaced.



## 50+ Year Asset Lifetime

No efficiency degradation and low O&M



# How The A-CAES Process Works

**1 COMPRESSION**  
Off-peak or renewable electricity powers a compressor, that compresses the air and generates heat in the process

**2 HEAT EXCHANGE**  
Heat generated during compression is extracted from the air and captured by the thermal management system for reuse



**Hydrostor IP\*:** Adiabatic heat storage improves efficiency and makes the process emissions free

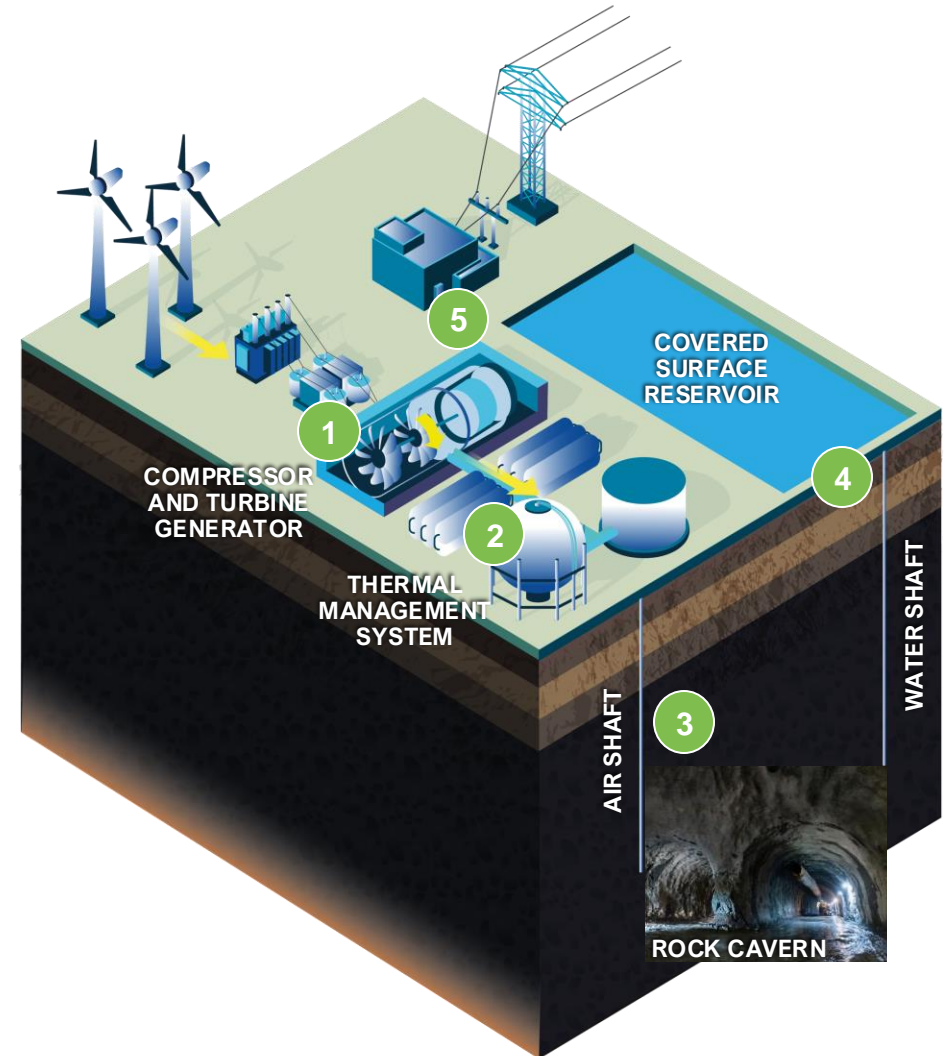
**3 AIR STORAGE**  
Compressed air is pumped down and stored in a purpose-built, water-filled cavern

**4 WATER DISPLACEMENT**  
Compressed air displaces water, forcing it up the shaft to the surface reservoir



**Hydrostor IP\*:** Hydrostatic compensation maintains cavern pressure, improves efficiency, and enables siting flexibility, which minimizes cavern cost and size requirement

**5 FULLY CHARGED STATE AND DISCHARGE**  
Once reservoir is filled, the plant is ready to provide energy on-demand by reversing the process and turning the above-ground turbine to generate electricity



# How The A-CAES Process Works

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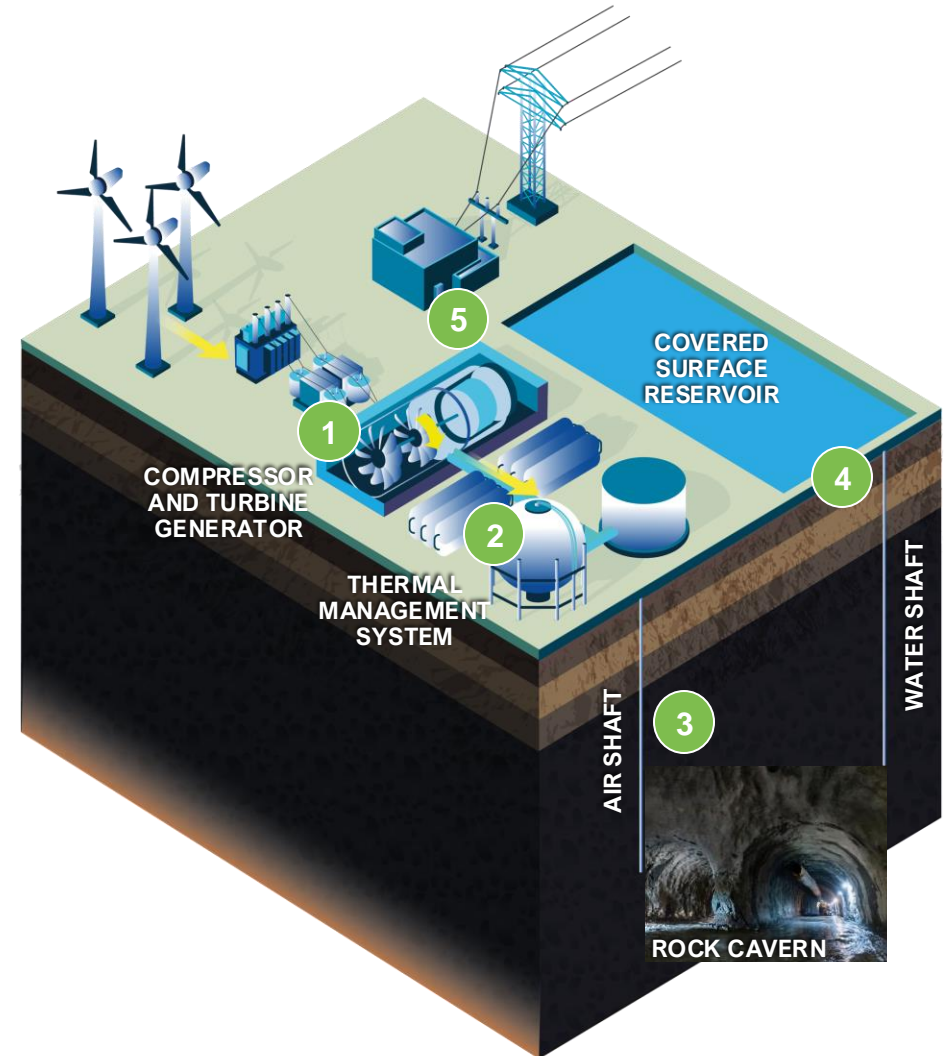
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Once reservoir is filled, the plant is ready to provide energy on-demand by reversing the process and turning the above-ground turbine to generate electricity



# Willow Rock – Optimized Project Location

Site is located at the northwest intersection of Sierra Highway and Dawn Road near CA Highway 14.

Project is located approximately 75 miles north of Los Angeles, CA.



## Willow Rock – Site Photos



# Willow Rock – Project Rendering

Rendering depicts proximity of nearby infrastructure including CA State Highway 14, Sierra Hwy., Dawn Road and the Union Pacific Railroad tracks.






# Willow Rock – Preferred Transmission Route



# Applicant’s Proposed AFC Proceeding Schedule:

	
Project Development Milestone	Schedule Date
Filed Supplemental AFC (SAFC) with CEC	March 1-8, 2024
SAFC Data Adequacy Reached	July 16, 2024
CEC Preliminary Staff Assessment Issued	Early 2025
CEC Final Decision	Mid 2025
Close of Project Financing & Commence Construction	Late 2025
Full Project Commercial Operation	2030

# Willow Rock A-CAES: Economic and Fiscal Benefits

**Total Construction Cost:** ~\$1.5 Billion

**Construction jobs:**

**Average Construction Workforce:** ~250 over 4+ years

**Peak Construction Workforce:** ~700

**Total Construction Labor:** ~2 million man-hours

**Operations & Maintenance Jobs:** 25-40 Full-time equivalent positions

**Fiscal benefits:** Over \$500 million in Direct & Indirect Economic impacts to Kern County Region over the project's commercial lifespan

**Property taxes:** Unlike state-imposed solar tax exemptions, Willow Rock is not exempt and will make over \$18 million annually in contributions through local property tax payments to Kern County

**Community:** Hydrostor is working with Kern County and local residents to ensure the project is compatible



## Willow Rock A-CAES: Optimized Project Site Advantages

**Less Impactful to Local Community:** There are no residences or business located within close proximity to the optimized site

**No Local Groundwater Impacts:** Water to be supplied by AVEK; no new ground water wells will be required, and Willow Rock will actually be a net water producer over its lifetime

**Project Access:** The optimized site location has excellent ingress and egress to SR-14

**Subsurface Geology:** The subsurface geology has been determined to be optimal quality for cavern construction and Hydrostor has identified several offtake opportunities for beneficial use of the rock in the concrete aggregate market





# Thank You

[www.hydrostor.ca/Willow-Rock](http://www.hydrostor.ca/Willow-Rock)

**Curtis VanWalleghem**  
CEO and Co-Founder

[curtis.vanwalleghem@hydrostor.ca](mailto:curtis.vanwalleghem@hydrostor.ca)

**Curt Hildebrand**  
SVP, Commercial Affairs (CA)

[curt.hildebrand@hydrostor.ca](mailto:curt.hildebrand@hydrostor.ca)



# **Presentations on the Willow Rock Energy Storage Center: Intervenors**

California Unions for Reliable Energy (CURE)

See Issues Identification Report ([TN 259672](#))



# **Presentations on the Willow Rock Energy Storage Center: Intervenors**

Center for Biological Diversity (the Center)

# Willow Rock Energy Storage Center 21-AFC-02

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Zeynep Graves

Senior Attorney

Center for Biological Diversity

California Energy Commission Informational Hearing  
November 2024





# Center for Biological Diversity



The Center is a nonprofit organization with offices nationwide, including California. The Center advocates for the protection of threatened and endangered species and their habitats through science, policy, and environmental law.



The Center's mission also includes protecting air quality, water quality, and public health while supporting the timely development of renewable energy sources in California.

# The Center's Interest in Willow Rock Energy Storage Center

- August 23, 2024: Center petitioned to intervene
- Center's interests include:
  - protection of the western Joshua tree, desert tortoise, and Mojave ground squirrel
  - conservation of migratory birds and other avian species
  - conservation of rare and imperiled native plants
  - conservation of other wildlife species found in the project area

# Issue Identified: Western Joshua Tree Impact

Approximately 3,449 western Joshua trees and 74.66 acres of Joshua tree woodlands are present in the surveyed areas

## Issues:

- Potential impacts to western Joshua trees and woodlands
- Statutory obligation to avoid and minimize impacts to western Joshua trees to the “maximum extent practicable” Cal. Fish & Game Code § 1927.3(a)(2)



# Issue Identified: Biological Resource Surveys

## **Western Burrowing Owl:**

Protocol adherence and survey coverage

## **Desert Tortoise:**

Survey coverage due to access limitations

## **Mohave Ground Squirrel:**

Disturbances affecting survey integrity

## **Crotch's Bumble Bee:**

Survey coverage

## **Swainson's Hawk:**

Survey coverage

## **Other Concerns:**

Desert kit fox, American badger, le Conte's thrasher, and others await sensitive species management plan

# Issue Identified: Surface Reservoir and Retention Pond

## **Surface Reservoir:**

- Potential for attracting predators (ravens) impacting local wildlife, e.g., juvenile tortoises
- Risks of wildlife entrapment and entanglement
- Material composition of floating cover, associated evaporation potential and need for additional water supplies over time

## **Retention Ponds:**

- Environmental impact on wildlife

# Thank You

**Zeynep Graves**  
Senior Attorney  
Center for Biological Diversity

[zgraves@biologicaldiversity.org](mailto:zgraves@biologicaldiversity.org)  
[www.biologicaldiversity.org](http://www.biologicaldiversity.org)





**Break:**  
**The hearing will resume**  
**in 10 minutes at [TIME]**

The California Energy Commission (CEC) is committed to promoting a clean, affordable, and reliable energy supply for all Californians.



# **Presentations on the Willow Rock Energy Storage Center: CEC Staff**

Siting, Transmission & Environmental Protection  
Division (STEP)





# **Willow Rock Energy Storage Project (21-AFC-02)**

**November 6, 2024, Informational Hearing, Rosamond, CA**

**Leonidas Payne, Project Manager  
Siting and Environmental Branch  
Siting, Transmission, and Environmental Protection Division**



# CEC Staff Role in an AFC Proceeding

- Lead CEQA Agency
- Independent party to the proceeding
- Point of contact for public, agency, and tribal input
- Initiates tribal consultation
- Hosts public workshop(s)
- Prepares objective environmental assessments
  - Preliminary Staff Assessment (PSA)
  - Final Staff Assessment (FSA)
- Provides expert witness testimony (technical expertise)



# Staff Discovery Efforts

- Data Request Set 1 (Alternatives, Cultural and Tribal Cultural Resources, and Socioeconomics): **July 26, 2024**
  - Applicant Response: **August 23, 2024**
- Data Request Set 2 (Air Quality, Hazardous Materials and Wildfire, Land Use, Agriculture, and Forestry, Public Health, and Transportation): **August 22, 2024**
  - Applicant Response: **September 19, 2024**
- Data Request Set 3 (Biological Resources, Greenhouse Gas Emissions, Hazardous Waste, Reliability, Transmission System Engineering, Water Resources, and Worker Safety and Fire Protection): **September 23, 2024**
  - Applicant Response: **October 23, 2024**
- Data Request Set 4 (Biological Resources, and Hazardous Materials and Worker Safety and Fire Protection): **September 27, 2024**
  - Applicant Response: **October 28, 2024**
- Future Data Request Sets: **TBD**



# Staff Tribal Consultation Efforts

- Tribal Consultation Letters Sent: **July 26, 2024**
- Electronic copies emailed: **August 16, 2024**
- Tribe responses with interest in consultation
  - Response from Yuhaaviatam of San Manuel Nation on August 15, 2024
  - Response from Kern Valley Indian Community on August 16, 2024
  - Response from Tejon Indian Tribe on August 16, 2024
- Tribes responding but not requesting consultation or deferring to local tribes
  - Response from Fernandeno Tataviam Band of Mission Indians on August 19, 2024
  - Response from Morongo Band of Mission Indians on August 19, 2024
  - Response from Fort Yuma Quechan Tribe on October 3, 2024
- Tribal consultation meetings with tribe[s]: TBD



# Staff Assessment Topic Areas

## Engineering Analysis

- Facility Design
- Power Plant Reliability
- Transmission System Engineering
- Worker Safety and Fire Protection

## Environmental Impact Analysis

- Air Quality
- Biological Resources
- Climate Change and Greenhouse Gas Emissions
- Cultural and Tribal Cultural Resources
- Energy
- Geology, Paleontology, and Minerals
- Hazards, Hazardous Materials, and Wildfire
- Land Use, Agriculture, and Forestry
- Noise and Vibration
- Public Health

## Environmental Impact Analysis (cont.)

- Socioeconomics
- Solid Waste Management
- Transmission Safety and Nuisance
- Transportation
- Visual Resources
- Water Resources

## Other Topics

- Environmental Justice
- Public Benefits
- Alternatives
- Compliance Conditions



# Issues Identified to Date

- **Biological Resources:**

- Bio technical team has received the Western Joshua Tree Relocation Plan but still needs to review the plan and coordinate with California Department of Fish and Wildlife. Follow-up data requests possible.

- **Cultural and Tribal Cultural Resources:**

- Incomplete baseline data
- Still waiting on Phase II Cultural Resources Testing Plan
- Still waiting on Revised Cultural Resources Survey Report

Previously identified issues involving **Reliability** and **Water Resources** technical areas (technology scale up, waste discharge permitting) are no longer expected to impact PSA publication schedule following data request responses and information sharing.



# Key Dates Associated with Staff's Assessment of the Project

- Discovery Period Closes (last day to file data requests): **January 13, 2025**
- Staff's PSA to be published by: **April 14, 2025**
- Comment deadline on PSA by: **May 29, 2025, or 45 days after PSA publication**
- Staff's FSA (includes response to comments) to be published by: **July 14, 2025, or 45 days after PSA commenting deadline**



# For More Information: CEC Project Webpage

<https://www.energy.ca.gov/powerplant/caes/willow-rock-energy-storage-center>

## Willow Rock Energy Storage Center

This proceeding is for the certification of an energy storage project in Kern County, California.

<b>PROJECT OWNER</b> Hydrostor	<b>TECHNOLOGY</b> A-CAES
<b>DOCKET NUMBER</b> 21-AFC-02	<b>PROJECT STATUS</b> Under Review
<b>CAPACITY</b> 520 MW	<b>PROJECT TYPE</b> Application for Certification
<b>LOCATION</b> 8684 Sweetser Road in Rosamond, Kern County, California	

## Project Description

The Willow Rock Energy Storage Center (WRESC) is proposed compressed air storage energy storage facility by Gem A-CAES LLC (Applicant), a wholly owned subsidiary of Hydrostor, Inc.

On December 3, 2021, the Applicant filed its original Application for Certification (AFC) for the project located at 8684 Sweetser Road in Rosamond, Kern County. In March 2024, the Applicant filed a Supplemental AFC for the project, changing the location to 68.6 acres of private land immediately north of Dawn Road and between State Route (SR) 14 and Sierra Highway within unincorporated Kern County, California, approximately 4 miles north of Rosamond, California. The new project site is on undeveloped land in an area zoned Limited Agriculture (A-1) District. The area surrounding the project boundary is largely undeveloped with very sparse residential development; the nearest residence is approximately 0.8 mile northwest of the northwest corner of the WRESC site.

WRESC would be a nominal 520-megawatt (MW) gross (500 MW net) and 4,160 megawatt-hour (MWh) gross (4,000 MWh net) facility using Hydrostor, Inc.'s proprietary, advanced compressed air energy storage (A-CAES) technology. The overall facility would consist of four nominal 130 MW (gross) power turbine trains, outputting a total of 500 MW net at the point of interconnection. Each train would contain an electric motor-driven air compressor drivetrain, heat exchangers, an air turbine generator, air exhaust stacks, and ancillary equipment. Each train would share a common set of thermal storage tanks (hot and cold water), as well as the air storage cavern. The WRESC would interconnect to Southern California Edison's Whirlwind Substation located southwest of the WRESC at the intersection of 170th Street W and Rosamond Boulevard, via a new approximately 19-mile 230-kilovolt (kV) generation-tie (gen-tie) line.

**ORIGINAL PROCEEDING**

[Submit e-Comment](#)

[Submit e-Filing](#)

[Docket Log \(21-AFC-02\)](#)

[Exhibit List](#)

[Proof of Service List](#)

[Search All Power Plant Documents](#)

[Submit e-Comment](#)

[Submit e-Filing](#)

[Docket Log \(21-AFC-02\)](#)

**CONTACTS**

**PROJECT MANAGER**  
Leonidas Payne  
[STEP@energy.ca.gov](mailto:STEP@energy.ca.gov)   
**(Please enter project name in the email subject line)**  
916 838 2124

**PUBLIC PARTICIPATION QUESTIONS**  
Public Advisor  
[publicadvisor@energy.ca.gov](mailto:publicadvisor@energy.ca.gov)   
916 269 9595

**MEDIA INQUIRIES**  
Media & Public Communications Office  
[mediaoffice@energy.ca.gov](mailto:mediaoffice@energy.ca.gov)   
916 654 4989

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916 654 4989

**RELATED DOCUMENTS**

[Project Figures](#)

**SUBSCRIBE WILLOW ROCK ENERGY STORAGE CENTER**

Automated Email Notifications

Email

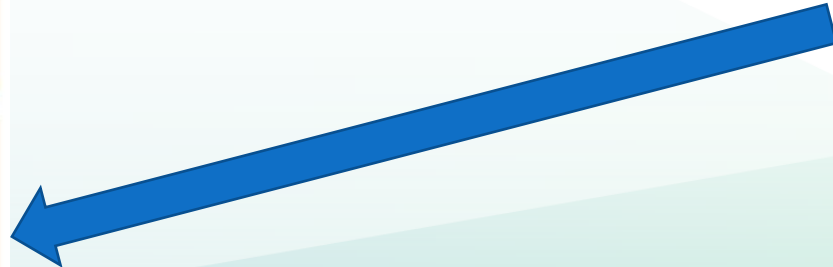
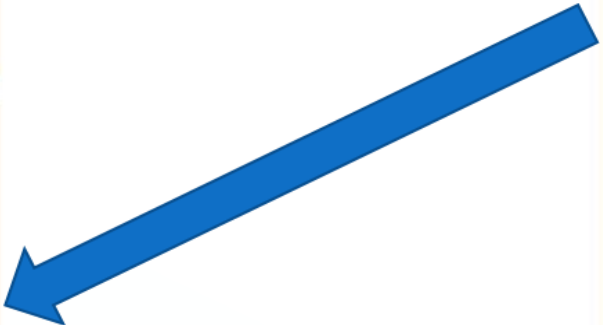
**SUBSCRIBE**

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Automated Email Notifications

Email

**SUBSCRIBE**







# **Remarks on the Willow Rock Energy Storage Center: Tribes, and Other State & Local Governments**



# Informational Hearing Agenda

1. **Welcome/ Committee’s Opening Remarks/Agenda Overview**
2. **Presentations on CEC AFC Process**
  - a. **Hearing Officer**– Introduction & the AFC Process
  - b. **CEC Public Advisor**– Opportunities for Public and Tribal Participation
3. **Public Comment**
4. **Presentations on the Willow Rock Energy Storage Center**
  - a. **Applicant**– Proposed Project Description
  - b. **Intervenors** – Review and Issues Identification
  - c. **CEC Staff**– Review and Issues Identification
- ➔ 5. **Discussion of Engineering, Environmental and Other Identified Issues**
  - a. **Applicant’s Response to Identified Issues**
  - b. **Committee’s Discussion with Parties about Issues**
6. **Public Question & Answer**
7. **Public Comment**



# **Discussion of Engineering, Environmental, & Other Identified Issues**

Applicant's Response to Identified Issues



# **Discussion of Engineering, Environmental, & Other Identified Issues**

Committee's Discussion with Parties about Issues



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- ➔ 6. **Public Question & Answer**
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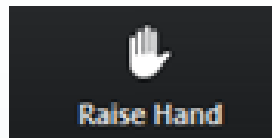
# Public Question & Answer

## Instructions

- CEC Staff will call on speakers:
  - California Native American tribes
  - State or local agencies or public officials
  - All others
- In person first, then Zoom
- 1 representative per organization

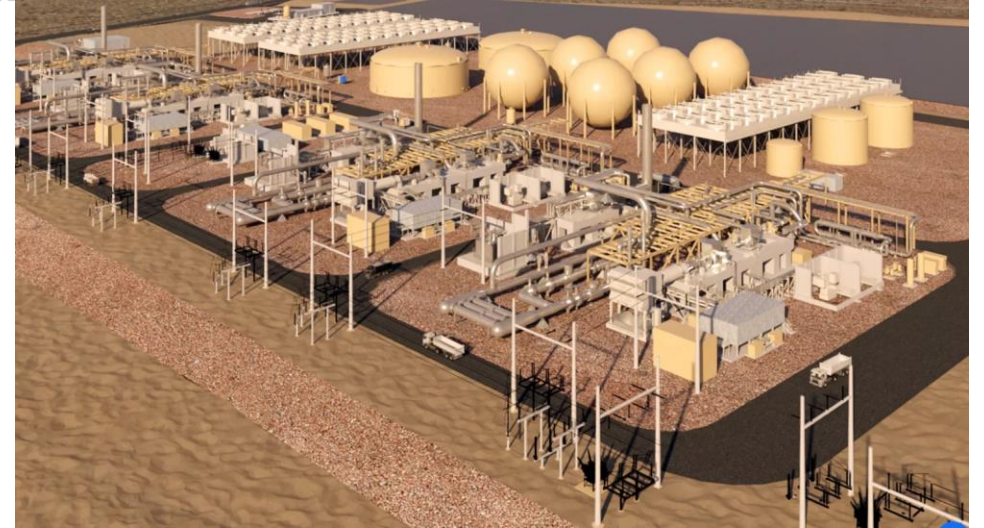
## Zoom App/Online

- Click “raise hand”



## Telephone

- Press \*9 to raise hand
- Press \*6 to (un)mute



## When called upon

- In person: Come to the mic
- Zoom: CEC Staff will open your line, then unmute yourself
- State & spell your name, and state affiliation, if any



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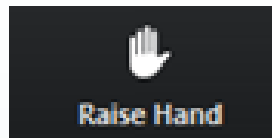
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# CEC Resource Links & Next Steps

- **Homepage:** <https://www.energy.ca.gov/>
- **Power plant licensing:** <https://www.energy.ca.gov/programs-and-topics/topics/power-plants/power-plant-licensing>
- **Project webpages:**
  - **Main:** <https://www.energy.ca.gov/powerplant/caes/willow-rock-energy-storage-center>
  - **Docket:** <https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=21-AFC-02>
  - **E-comment:** <https://efiling.energy.ca.gov/Ecomment/Ecomment.aspx?docketnumber=21-AFC-02>
  - **E-file:** <https://efiling.energy.ca.gov/>
- **Information about e-filing and e-commenting:** <https://www.energy.ca.gov/proceedings/e-filing-and-e-commenting>
- **Office of the Public Advisor, Energy Equity, and Tribal Affairs:** <https://www.energy.ca.gov/about/divisions-and-offices/office-public-advisor>



# Committee's Concluding Remarks



**Adjourn**  
**Thank you!**

