

**DOCKETED**

<b>Docket Number:</b>	21-AFC-02
<b>Project Title:</b>	Willow Rock Energy Storage Center
<b>TN #:</b>	245911
<b>Document Title:</b>	Kern County's Additional Comments
<b>Description:</b>	N/A
<b>Filer:</b>	System
<b>Organization:</b>	Kern County Planning and Natural Resources Department
<b>Submitter Role:</b>	Public Agency
<b>Submission Date:</b>	9/8/2022 12:00:08 PM
<b>Docketed Date:</b>	9/8/2022

*Comment Received From: Kern County Planning and Natural Resources Department  
Submitted On: 9/8/2022  
Docket Number: 21-AFC-02*

**Kern County Additional Comments on Willow Rock Energy Storage  
Center Project**

*Additional submitted attachment is included below.*

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**PLANNING AND NATURAL  
RESOURCES DEPARTMENT**

Planning  
Community Development  
Administrative Operations

September 6, 2022

**FILE:** Gen. Corr., Map 231  
Willow Rock Energy Storage Center Project  
**WO#:** PP22149

Mr. Leonidas Payne  
California Energy Commission  
Submitted electronically  
Docket Unit, MS-4  
Docket No. **21-AFC-02**  
Sacramento, California 95814-5512

**RE: Willow Rock Energy Storage Center Project – Docket 21-AFC-02  
Zone Map 231 – Unincorporated Kern County Area Willow Springs/Rosamond  
(APN: 315-081-09)**

Dear Mr. Payne,

Thank you for the opportunity for continued participation in the permitting process for the Willow Rock Energy Storage Center Project by Hydrostor located in unincorporated Kern County in the Willow Springs Specific Plan. The August 11, 2022, Public Hearing was very productive in educating the community on the process and opportunities for comment.

The applicant, in response to our questions regarding blasting schedules, noise and other impacts such as traffic, responded by saying all the answers are in the Application for Certification (AFC) submitted to the CEC. A full copy was provided to this department, and we reviewed it again to see what we misunderstood or overlooked. We conclude; the information is not in the document. We have attached, for ease of access, highlighted excerpts from the submitted AFC.

The following are our continuing comments for the records.

- **Details on Blasting operations and Noise Impacts – Not included**

Section 5.5.2.4.1.1 Construction states that cavern construction will take over 63 months (5.25 years) and comprises 7 lines of description. Further details of general requirements for the use of explosives are found in section 5.54.1.2 Explosive Use. Further areas in the application define the number of materials removed as 1.1 million cubic yards. The noise chapter and noise study fail to include any details on the impacts and frequency of blasting. Besides the residential homes within a few feet of the project the only middle school for the community of over 21,000 residents in Rosamond/ Willow Springs – Tropic Middle School is within 3.5 miles of the site. Blasting will certainly be heard by those students and may disrupt their outdoor as well as indoor activities. In combination with the significant random sonic booms, often weekly and daily, from Edwards Air Force Base flight activities the impacts are significant.

The project description and studies lack the following details:

- ✓ Hours of blasting and excavation and frequency of events per day
- ✓ Noise analysis of blasting events on the basin area
- ✓ Noise analysis of blasting events on sensitive receptors
- ✓ Analysis of cumulative impacts of sonic booms
- ✓ Analysis of impacts on fire and emergency response

The project impacts are significant to the surrounding basin wide community for such a long duration blasting operation. To allow the applicant to defer all details until after approval is not acceptable and not consistent with Kern County permitting processes.

- **Details on Impacts on Roads and Mitigation – Incomplete**

The project description includes a secondary access onto Tehachapi Willow Springs Road a few feet south of Sweetser Road which has not been approved by Public Works. It does not detail any improvements to the currently dirt public access easement of Sweetser Road or analysis of the structural sections of Tehachapi Willow Springs Road for the transport of the excavated rock and other construction activities. Further, while the project description clearly states the project will utilize an “approximately 40 -acre temporary construction laydown and parking facilities located on the parcel directly north of the site, across Sweetser Road.”, the applicant has informed the county this week they have no site control of that property for their zone change application. Therefore, they are still locating a construction laydown area which could significantly impact the traffic analysis.

Instead, the analysis (5.12.1.2.3- Truck Routes – Weight and Load Limitations) includes a list of “Disposal Facilities,” some almost 50 miles away. The presentation appears to assume that a quarry is a “Disposal Facility” for rock excavated outside the limits of the project. Kern County mines are included on this list, and we can affirm that is not accurate. Further the analysis includes the following statement in italics:

*Please note that the sites and owners noted in this memorandum have not provided their consent for the Applicant to list them on permit applications or the submittal of other formal, external project documents.*

Given that these locations have not agreed to take the materials, it is unclear how a legitimate analysis can be conducted at this time.

The analysis further states “*This evaluation did not include non- commercial private landowners.*” Please note that the stockpiling of excavated rock on private property in unincorporated Kern County is not permitted and any use of the rock by a private landowner would require a grading permit.

The analysis concludes, even with this list of unapproved locations, that the traffic analysis used the Ridgeline Materials, LLC quarry 6 miles from the site on Tehachapi Willow Springs Road. This mine no longer has a permit to operate and cannot take uncrushed excavation rock for reclamation of the mine, if that is the mine’s intention, without a new Conditional Use Permit and CEQA.

Full paving and other road improvements of the full length of Sweetser Road as well as repaving of Tehachapi Willow Springs Road and other potentially impacted roadways will be requested by Kern County for both the 63-month (5.25 years) construction phase and the operational phase. No improvements are listed or even contemplated by the applicant for this significant impact. In consultation with the Public Works Department, we will be providing you with our requests on such improvements in a separate submittal.

### Conclusion

In conclusion, for the applicant to answer real concerns of the County and community by pointing at a document that contains no answers, is not appropriate. Kern County requests that details of the blasting activities, noise analysis, a permitted location for disposal of the rock and road improvements need to be evaluated and mitigation designed with the CEC staff recommendation. Further the lack of site control of the 40-acre laydown and parking area raises serious concerns about the appropriateness of continued processing of this project without this information.

This project may be needed to store renewable energy, but it will not be storing electricity for the 21,000 residents of Rosamond/Willow Springs in Kern County. It will be for the regional grid which provides renewable energy for the rest of California in areas from Santa Monica to San Francisco who will not have to endure over 5 years of blasting or heavy truck traffic degrading local roads. Appropriate and sufficient mitigation can be designed, but not without accurate information, including facts and details of construction from the applicant for review by the public.

Thank you for the opportunity to participate in this project which is completely within unincorporated Kern County.

Should you have additional questions, please contact the staff planner for the project Katrina A. Slayton, Division Chief, Advanced Planning at [slaytonk@kerncounty.com](mailto:slaytonk@kerncounty.com).

Sincerely,



Lorelei H. Oviatt AICP  
Director

Attachments

Cc: Kern County Public Works – Mine Inspector  
Kern County Public Works - Roads  
Kern County Fire – Prevention  
Hydrostor – Applicant

- Two groundwater extraction wells (one primary, one backup) to provide facility water (basin water rights will be contracted with a third-party water rights holder), with the primary water use being the initial filling and subsequent water makeup for the compensating surface reservoir. Onsite groundwater for the initial reservoir filling may be supplemented with water supplied and trucked to the site from local water purveyors.
- Two diesel-fired emergency backup generators up to 5MW each to support critical facility load in the event of a power interruption (not normally operated except for monthly reliability testing).
- Secure perimeter chain link fencing with four site access points, a main entrance gate on Sweetser Road, two secondary access gates on Sweetser Road, and a secondary access gate on Tehachapi Willow Springs Road.
- A Gas Insulated Switchgear (GIS) Building (70 feet high by 85 feet wide by 130 feet long) and 230 kilovolt (kV) onsite switchyard.
- An approximately 10.9-mile 230 kV transmission line interconnected at SCE's Whirlwind substation. Alternatively, Gem may be interconnected to a future LADWP Rosamond substation via an approximately 3.5-mile 230 kV transmission line.
- Two stormwater retention ponds, a south pond (150 feet long by 260 feet wide) and a north pond (245 feet long by 180 feet wide), served by perimeter stormwater culverts to manage stormwater onsite.
- Industrial wastewater will be treated and recycled onsite with a very small quantity directed to one of the stormwater ponds. Any process wastewater collected during maintenance activities will be collected in a holding tank and periodically removed by a licensed hauler.
- Approximately 40-acre temporary construction laydown and parking facilities located on the parcel located directly to the north of the site, across Sweetser Road.

Section 2, Project Description of this AFC provides detailed elements of the project.



metals, alcohols, cyanides, and sulfides as specified in **Table 5.5-3**. Potential toxic effects of sulfuric acid and acceptable exposure levels are summarized in **Table 5.5-4**.

Storage and use of sulfuric acid will be subject to the requirements of the California Fire Code, Article 80, as well as CalARP. Article 80 of the California Fire Code contains specific requirements for control of liquid and gaseous releases of hazardous materials. The appropriate storage container, for example, high density polyethylene (HDPE), will be used and will include a secondary containment. The sulfuric acid storage containers will be equipped with engineering controls (i.e., monitors, automated leak detection system and alarm, pressure indication and and/or emergency block valve) to prevent leaks or spills.

In addition, the facility will be required to prepare a risk management plan (RMP) in accordance with CalARP, further specifying the safe handling procedures for the sulfuric acid as well as emergency response procedures in the event of an accidental release. The contents of the RMP, which is discussed in Section 5.5.4.2.2, will be prepared for the GESC site using updated modeling guidance prior to operation GESC.

With implementation of these measures, impacts related to the storage and handling of sulfuric acid will be less than significant.

#### **5.5.2.4 Accidental Release Hazards**

Without proper engineering controls, the public could be at risk of exposure to harmful vapors in the event of an accidental release, as incompatible chemicals have the potential to mix, causing vapors that could also have harmful effects. However, GESC will implement California Fire Code (Articles 79 and 80) requirements for safe storage and handling of hazardous materials. The proposed GESC project and the affiliated staff will use engineering controls to reduce the potential for release of hazardous materials and mixing of incompatible materials.

In the unlikely event that a release occurs, no schools or other sensitive receptors, as defined in Section 5.09 Public Health, are within a 0.5-mile radius of GESC; therefore, the effects of potential emissions from an accidental release are less than significant. All transportation of hazardous substances will be with Department of Transportation (DOT)-approved personnel and trucking/transport equipment. The project operations will not involve the handling of any other acutely hazardous materials that would have the potential to generate significant offsite consequences. Consequently, no protocol for modeling of hazardous materials releases is included in the AFC and no modeling is proposed.

##### **5.5.2.4.1 Fire and Explosion Hazards**

###### **5.5.2.4.1.1 Construction**

The Applicant estimates that cavern construction will require just over 63 months to complete and will involve the use explosives. Layout holes for cavern construction will occur only after the 2000 ft shafts have been bored. As required by the California Code of Regulations Title 8 (344.20), lead construction personnel will have a valid California Blaster's License and will be physically present when performing, directing, and supervising blasting operations. The BMPs described in Section 5.5.4.1 and Section 5.15, Worker Health and Safety will be implemented by the contractor personnel. All use of explosives will occur underground, and comply with all applicable state and federal regulations, and will not impact surface resources.

###### **5.5.2.4.1.2 Operations**

Flammability of hazardous materials onsite during operation are described in **Table 5.5-3**. All hazardous material storage areas will be equipped with a fire extinguishing system and ventilation for enclosed substances per the



competent and trained personnel, small spills can be contained and cleaned up immediately. Large spills will require reporting to local emergency contacts. A designated onsite health and safety person will be responsible for implementing health and safety guidelines. For petroleum products, if the spill is over 42 gallons, all federal, state, and local reporting requirements will be followed. Onsite personnel will call local fire and emergency services in the event of a fire or injury.

#### 5.5.4.1.2 Explosive Use

The BMPs identified in this Section as well as in Section 5.15, Worker Health and Safety will be implemented by the contractor personnel. As required by the California Code of Regulations Title 8 (344.20), lead construction personnel will have valid California Blaster's License and will be physically present when performing, directing, and supervising blasting operations. A third-party contractor will be responsible for acquiring necessary permits and establishing safety plans or best management practices used during construction.

GESC construction personnel will store explosives in the proper magazine type as outlined in Cal/OSHA Title 8; California Division of Industrial Safety, subchapter 7, General Industry Safety Orders, Group 18; Explosives and Pyrotechnic, Article 114, Storage of Explosives. Specifically, caps and detonators will be stored in separate magazines away from other explosives to prevent accidents. All use of explosives will occur underground, comply with all applicable state regulations (cited above) and federal regulations (27 CFR Part 555 and Mine Safety and Health Administration CFR Title 30 Chapter I), and will not impact surface resources.

Best management practices will be implemented during the cavern construction phase to reduce risk of accidental fire and explosion and include the following:

- No smoking or open flames permitted within 50 feet of explosive handling
- No source of ignition, except during firing, is permitted in the areas containing loaded holes
- Only non-sparking tools are used for opening containers and explosives
- Explosives will be kept clear of electrical circuits by 25 ft
- Unused explosives will be returned promptly to the magazine
- A tally sheet at each magazine stored on site will record all movement of explosives
- All loaded holes and explosives at the blast site will be attended

#### 5.5.4.2 Operation Phase

The following sections discuss mitigation measures for substance handling during GESC operations. Hazard material use is identified in Section 5.5.1.2.2.

##### 5.5.4.2.1 Hazardous Materials

Hazardous materials storage will all occur on Site and will be in accordance with applicable codes and regulations specified in Section 5.5.6. The California Fire Code outlines the provisions to reduce the risk of fire or potential release of hazardous materials that could affect public health or the environment and include the following:

- For any indoor hazardous material storage areas, an automatic fire-suppression (such as sprinklers and/or foam application system) and exhaust system will be incorporated.
- Incompatible materials will be isolated from one another by noncombustible partitions



Landfill / Transfer Station	Location	Class	Permitted Capacity (cubic yards)	Remaining Capacity (cubic yards)	Permitted Throughput (tons per day)	Estimated Closure Date*	Violation of Minimum State Standards Noted*
Boron Sanitary Landfill	11400 Boron Ave, Boron, CA 93516	III	1,057,000	191,380	200	1/1/2048	Yes (May 1989, June 1992)
Tehachapi Recycling, Inc	416 North Dennison Road, Tehachapi, CA 93561	NA	NA	NA	850	NA	Yes (September 2015)

TP = Transfer/Processing  
 Source: CalRecycle SWIS Database

**Excavated Soil and Bedrock**

Construction of the Gem project would result in the excavation of approximately 1.1 million cubic yards of waste rock that is expected to be of aggregate quality. Where feasible, subsurface material will be used for grading the project site. As a result, the project intends to recycle approximately 50 percent of the excavated material for site grading and construction of the earthen berms for the surface compensation reservoir.

An evaluation was conducted and included reviewing online data and aerial imagery to identify off-site disposal facilities within a 60-mile radius of GESC. There may be unknown permitting restrictions, environmental impact concerns, or political concerns that will prevent identified sites from agreeing to accept the waste rock. This evaluation did not include non-commercial private landowners. *Please note that the sites and owners noted in this memorandum have not provided their consent for the Applicant to list them on permit applications or the submittal of other formal, external project documents.*

Table 5.14-4 lists eight potentially viable options for disposing of the estimated volume of waste rock. Acceptance of the waste rock for all of the viable sites will be dependent upon the waste rock being suitable for processing into a marketable aggregate product.

**Table 5.14-4 Viable Excavated Soil and Bedrock Disposal Locations in the Vicinity of GESC**

Disposal Facility	Location	Activity	Approximate Hauling Distance (miles)
Granite Construction – Big Rock Plant	Llano, CA	Active	49
Granite Construction – Littlerock	Littlerock, CA	Active	38
Hi Grade Materials	Palmdale, CA	Active	38
Holliday Rock Quarry	Mojave, CA	Active	7



Disposal Facility	Location	Activity	Approximate Hauling Distance (miles)
Holliday Rock Quarry	Littlerock, CA	Active	39
Ridgeline Mine	Mojave, CA	Active	6
Rio Tinto – Boron Mine	Boron, CA	Active	48
Vulcan Materials – Big Rock Creek	Pearblossom, CA	Active	49
Waste Management – Lancaster Landfill and Recycling Center	Lancaster, CA	Active	20

The following describes the facility characteristics for the three locations identified in Table 5.14-4:

- **Granite Construction – Big Rock Plant.** This is an operational aggregates plant that appears to have ample space, and likely has the capacity to accept the proposed volume of waste rock. It is Golder's understanding that this site primarily works with alluvial material, and therefore may have limited crushing facilities. More thorough inquiries with the owner would be required to verify.
- **Hi Grade Materials.** This is an operational aggregates plant that appears to have ample space and likely has the capacity to accept the proposed volume of waste rock. It is Golder's understanding that this site primarily works with alluvial material, and therefore may have limited crushing facilities. More thorough inquiries with the owner would be required to verify.
- **Holliday Rock Quarry – Mojave.** This is an operational aggregates plant that appears to have ample space and likely has the capacity to accept the proposed volume of waste rock.
- **Holliday Rock Quarry – Palmdale.** This is an operational aggregates plant that appears to have ample space and likely has the capacity to accept the proposed volume of waste rock. It is Golder's understanding that this site primarily works with alluvial material, and therefore may have limited crushing facilities. More thorough inquiries with the owner would be required to verify.
- **Ridgeline Mine.** This is an operational mine that we understand has expressed interest to Hydrostor directly, regarding the acceptance of the proposed volume of waste rock.
- **Rio Tinto Boron Mine.** This is an operational mine that appears to have ample space and likely has the capacity to accept the proposed volume of waste rock. However, acceptance and storage of the waste rock may require additional environmental permitting.
- **Vulcan Materials – Big Rock Creek.** This is an operational aggregates plant that appears to have ample space and likely has the capacity to accept the proposed volume of waste rock.
- **Waste Management Lancaster Landfill and Recycling Center.** This is an operational landfill that appears to have ample space and likely has the capacity to accept the proposed volume of waste rock. It is Golder's understanding that the landfill has a planned 80-acre expansion. It is possible that this facility might consider stockpiling waste rock for future use as an aggregate product or for a storage fee. More thorough inquiries with the owner would be required to verify.



**Table 5.12-5: Intersection Level of Service – Existing Conditions**

INTID	Intersection Name	Traffic Control	Peak Hour	Existing Condition	
				Average Delay	LOS
1	Rosamond Blvd and 90th St W	AWSC	AM	7.3	A
			PM	7.6	A
2	Rosamond Blvd and 55th St W/Tropico Road	AWSC	AM	12.1	B
			PM	9.8	A
3	SR 14 SB Off-Ramp & Rosamond Blvd	Signal	AM	20	C
			PM	16.4	B
4	SR 14 NB Off-Ramp & Rosamond Blvd	Signal	AM	14	B
			PM	13.3	B
5	W Ave A and 90th St W	AWSC	AM	7.7	A
			PM	7.8	A
6	W Ave D/ SR 138 and 90th St W	TWSC	AM	11.6	B
			PM	13.5	B
7	Hamilton Road and Tehachapi Willow Springs Road	TWSC	AM	8.7	A
			PM	14.1	B

Note: Average delay expressed in seconds.

AWSC = All Way Stop Control; TWSC = Two-way Stop Control

### 5.12.1.2.3 Truck Routes – Weight and Load Limitations

The construction of GESC will involve several different types of cargo that will travel to or from the site by truck. These are:

- Construction Material:** Large and heavy components for GESC will be transported to the site by truck. These loads are expected to originate primarily (85%) from the greater Los Angeles area, including several shipments that will arrive at the Ports of Los Angeles and Long Beach. The path to be taken by these cargos would be via I-710, I-405, I-5, and then to SR 14 at Rosamond and west to the project site (see Figure 5.12-5). A lesser amount (15%) is expected to be shipped from the Bay Area, particularly the Port of Oakland. Their route would be via I-880, I-580, I-205, SR 99, SR 58, and then to SR 14 at Rosamond and west to the project site (see Figure 5.12-6 **Error! Reference source not found.**). These routes are Surface Transportation Assistance Act (STAA) "Green" routes<sup>1</sup>, meaning that they are designed to accommodate large trucks.
- Tunneling Spoil:** Approximately 1.1 million cubic yards of rock will be excavated to construct the compressed air storage caverns. It is anticipated that a portion of this rock will be used on-site to construct the containment structure for the reservoir. The remaining spoil is expected to be transported to the local quarry, 5 miles north via Tehachapi Willow Springs Road.

<sup>1</sup> See <https://dot.ca.gov/programs/traffic-operations/legal-truck-access/truck-network-map>

### 5.12.3 Cumulative Effects

Once the A-CAES facility is constructed, it will be operated by a workforce of approximately 50 employees who will be commuting from nearby communities. In accordance with Kern County traffic guidelines, a traffic impact analysis of study intersections and roadway segments is not required during the operational phase, as the project will generate fewer than 100 peak-hour trips during this phase. The traffic impacts of the project would be less than significant.

### 5.12.4 Mitigation Measures

GESC's only transportation impact would be the VMT impact of construction workers staying at hotels. This impact could be mitigated through carpooling. Table 5.12-13 shows that if 20% or more of the GESC construction workers residing in hotels carpoled with another worker staying at the same hotel, then the average VMT/employee would drop below the current average and the impact would be reduced to less than significant.

**Table 5.12-13: Computation of VMT/Employee for Workers Residing in Hotels after Mitigation**

Hotel Location	Number of Hotels	Percent of Hotels	Miles from Site	Calculation of Average VMT	With 20% Carpooling
	(A)	(B)=(A)/Σ(A)	(C)	(D)=(B)* (C)	(E)=(D)*.8
Rosamond	2	4%	9	0.4	0.3
Lancaster	17	33%	21	7.0	5.6
Palmdale	13	25%	30	7.6	6.1
Mojave	9	18%	19	3.4	2.7
Tehachapi	10	20%	22	4.3	3.5
Total	51	100%		22.7	18.1

The GESC project would have no other significant transportation impacts, so no further mitigation measures are required.

### 5.12.5 Laws, Ordinances, Regulations, and Standards

The project applicant would ensure compliance with LORS of all applicable federal, state, local and administering agencies pertaining to traffic and transportation issues.

#### 5.12.5.1 Federal LORS

- 49 CFR 172, 173, and 173. These regulations provide standards for labels, placards, and markings on hazardous materials shipments by truck (Part 172), standards for packaging hazardous materials (Parts 173), and for transporting hazardous materials in tank cars (Part 179). The administering agencies for the above authority are the CHP and U.S. Department of Transportation.
- *As per the project description, the project will have 1 fuel truck trip per day during the Site clearing stage. Additionally, the project will deliver explosives biweekly during the mining stage (months 19-60). The project will comply with all standards for the transportation of hazardous materials.*
- 49 CFR 350-399, and Appendices A-G, Federal Motor Carrier Safety Regulations, address safety considerations for the transport of goods, materials, and substances over public highways.