DOCKETED	
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Document Title:	Willow Rock Data Requests Set 2
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October 21, 2022

Curt Hilderbrand Hydrostor, Inc. 400 Capitol Mall, Suite 3000 Sacramento, CA 95814-4497

Data Requests Set 2 for Willow Rock Energy Storage Center (21-AFC-02)

Dear Curt:

Pursuant to Title 20, California Code of Regulations, section 1716, California Energy Commission (CEC) staff is asking for the information specified in the enclosed Data Requests Set 2, which is necessary for a complete staff analysis of the Willow Rock Energy Storage Center (WRESC) under the Warren-Alquist Act and California Environmental Quality Act (CEQA).

Responses to the data requests are due to staff within 30 days. If you are unable to provide the information requested, need additional time, or object to providing the requested information, please send written notice to me and the Committee within 20 days of receipt of this letter. Such written notification must contain the reasons for not providing the information, the need for additional time, or the grounds for any objections (see Title 20, California Code of Regulations, section 1716 (f)).

If you have any questions, please email me at <u>leonidas.payne@energy.ca.gov</u>.

/S/

Leonidas Payne Project Manager

Enclosure: Data Requests Set 2

AIR QUALITY

BACKGROUND: Construction PM10 Emissions

The construction phase of the project is expected to take approximately 63 months. As shown in Table 1 and 2 of Appendix 5.1C, the emissions of particulate matter less than 10 microns (PM10) during the construction are significantly high, which are mainly fugitive dust emissions from unpaved roads, surface areas and stockpiles. Table 3 shows that the construction PM10 emissions would make a significant contribution to the existing violation of 24 hour and annual PM10 standards. The applicant proposed several mitigation measures to control fugitive dust emissions; however, additional or more stringent measures may be needed to reduce the project's prolonged impacts.

DATA REQUESTS

113. Please provide justifications to show why the proposed mitigation measures are sufficient for the proposed project.

114. Please provide additional mitigation measures to control construction PM10 emissions if necessary (e.g., graveling or paving onsite, unpaved haul roads and parking lots early in the construction schedule to prevent extensive, prolonged fugitive dust emissions).

BIOLOGICAL RESOURCES

BACKGROUND: GIS Data (follow-up to data request 9)

The applicant's August 25, 2022 data request response (TN 245698) did not include shapefiles for burrowing owl (BUOW) burrows and Swainson's hawk (SWHA).

DATA REQUESTS

115. Please provide (under confidential cover) the shapefiles for BUOW including suitable burrows and sign.

116. Please provide (under confidential cover) the shapefiles for SWHA including potential nest locations, active competitor nest locations, and active nest location 2021.

CULTURAL/TRIBAL CULTURAL RESOURCES

BACKGROUND: Willow Springs Village

Willow Springs Village is recorded and evaluated on Department of Parks and Recreation (DPR) 523 forms P-15-000129-Update as "*P4. Resources Present: Building(s), Structure(s) and Site"* (Demarais and Mills 2022). Elsewhere in the documentation provided it is described as a district (Demarais and Mills 2022, p.3, *P3a. Description*; Demarais et al. 2022, Table 5-1).

The California State Office of Historic Preservation (OHP) provides guidance for categorization of historical resources (OHP 1995, Appendix 5) when recording and evaluating cultural resources. The guidance characterizes "Sites" with a variety of prehistoric and historic-era types of resources. The guidance characterizes "District" as largely historic-era resources and largely of the built environment, including "rural villages" as a type of district. Based upon the standards provided in the National Park Service's National Register Bulletin 16A, upon which the OHP guidance is based, the categories are more fully defined as follows:

- Site: A site is the location of a significant event, a prehistoric or historic occupation or activity, or a building or structure, whether standing, ruined, or vanished, where the location itself possesses historic, cultural, or archaeological value regardless of the value of any existing structure.
- District: A district possesses a significant concentration, linkage, or continuity of sites, buildings and structures, or objects united historically or aesthetically by plan or physical development (NPS 1991, p.15).

DATA REQUESTS

117. Please provide a discussion of whether the Willow Springs Village assemblage of buildings and structures should be recorded and evaluated as a site or as a district and the reasons why it was recorded and evaluated as a site containing buildings and structures and not as a district.

118. If in fact the applicant finds it more appropriate to record and evaluate Willow Springs Village as a district, please provide an updated evaluation in Demarais et al. 2022, Section 6.2.1 and appropriate DPR 523 forms. Include conclusions as to whether Willow Springs Village evaluated as a district as opposed to a site would change the boundary selected for the resource.

119. Discuss whether the suggested mitigation (Demarais et al. 2022, pp.75 and 78) to reduce impacts to the resource might change if it were evaluated as a district rather than a site.

BACKGROUND: Multiple AFC Data Adequacy Submittals-Update Section 5.3

The applicant submitted and docketed 63 individual filings to attain data adequacy for cultural and tribal cultural resources. The initial AFC Section 5.3 and related appendices totaled 27 individual filings before additional information was required to attain data adequacy. Those original filings were TN 240751-9 (12/01/2021), TN 240771, TN 240780 (12/02/2021) and TN 241008–241032 (12/23/2022). Of these, 24 were confidential filings.

As a response to Data Adequacy Report No. 1, thirty-four additional confidential filings of individual submittals of hundreds of pages each were docketed. Confidential filings to reach data adequacy were docketed as: TN 243639–243671 (05/13/2022 to 06/03/2022), TN 243425 (06/03/2022), and TN 243731 and 243742 (06/27/2022). Two non-confidential filings to reach data adequacy were docketed: TN 243018 and TN 423019 (05/11/2022).

The administrative record is difficult to follow over 63 filings and thousands of pages of information. Although the basic information required has been received and deemed data adequate as of July 14, 2022, it is not in a format that is easily followed by staff or —more importantly—the public. During the data adequacy phase, staff asked the applicant to incorporate the additional required information into AFC Section 5.3 (TN 241097, TN 243507 and TN 243731). The applicant did not respond to this request. In the interest of providing the public a clear administrative record, staff requests the following.

DATA REQUESTS

120. Section 5.3.2.1.1, Archival Research: Update the Archival Research discussion with the information gathered in the additional data adequacy submittals, including a description of the entirety of the study area and project components, and the additional literature searches conducted at the Southern San Joaquin Valley Information Center.

121. Table 5.3-1, Previous Cultural Studies: Update the table to include the Previous Cultural Studies identified in the subsequent literature searches with the expanded study area (PaleoWest 2022, Rotella et al. 2022a; Rotella et al. 2022b).

122. Table 5.3-2, Historic Built Environment Resources: Replace the Historic Built Environment Resources identified in the "desktop analysis" (Golder 2021, p. 5.3-21) with the actual results of the surveys conducted on the ground (Demarais et al. 2022, Table 5-1). Include a column in the table with the eligibility determinations found in Demarais et al. (2022, Section 6.2) and include a referral to Demarais et al. (2022, Sections 6.2 and 8.1) for further information.

123. Section 5.3.2.1.2, Archaeological Field Survey: Update the Archaeological Field Survey description to include the additional archaeological surveys and submittals that

took place during the data adequacy phase, including the methods employed from Montgomery et al. (2021), Rotella et al. (2022a), and Rotella et al. (2022b).

124. Section 5.3.2.1.3, Architectural Survey: Provide a summary of the methods employed in all architectural surveys that were undertaken during the data adequacy phase (Demarais et al. 2022; Demarais and Mills 2022).

125. Section 5.3.3, Environmental Analysis: Include the mitigation measure(s) proposed to reduce potential impacts to Willow Springs Village, as detailed in Demarais et al. (2022, p.78), or as modified by the response to data request 119 above.

126. Section 5.3.5: Update the mitigation measures proposed to include the final recommendation for Willow Springs Village (see data request 119 above).

127. Section 5.3.9, References: Provide an updated reference list that includes the additional filings submitted during the Data Adequacy phase.

BACKGROUND: Multiple Submittals with Same Title and Missing Submittals Based on Title

Page 5.3-1 of the AFC lists the cultural resources appendices submitted along with the AFC (TN 240771). In addition to Cultural Resources Appendix 5.3A and Appendix 5.3C, which were submitted to the docket publicly, Appendix 5.3B is noted in the text that it would be submitted under confidential cover. The text relative to Appendix 5.3B on page 5.3-1 is as follows:

 "Appendix 5.3B provides the cultural resource technical report which includes the following elements:

 California Department of Parks and Recreation (DPR) 523 forms for newly recorded and updated resources.

 Archival research material, including copies of historic maps and aerial photographs of the project and a complete copy of the California Historical Resources Information System (CHRIS) literature search results.

• Copies of previous technical reports occurring within 0.25 miles of GESC and DPR 523 forms for previously recorded resources occurring within 0.25 miles of GESC and 0.25 miles of linear facilities.

The Applicant will submit Appendix 5.3B separately to the CEC under a request for confidentiality".

The cover page for Appendix 5.3B submitted as part of TN 240771 is entitled as follows:

APPENDIX 5.3B CONFIDENTIAL REPORT NAHC Consultation Documents (to be provided separately)

This title implies that Appendix 5.3B contains a report to supplement the NAHC documents provided in Appendix 5.3A, which appears to be a different description of the material included in Appendix 5.3B than the description above from page 5.3-1. An application for confidential designation was docketed on December 3, 2021 (TN 240820). The application lists four parts of an Appendix 5.3B: Appendices A, C, D and E. To make matters even more confusing, a non-confidential Appendix 5.3B was submitted along with the AFC (TN 240780). This submittal is entitled: *Cultural Resources Technical Report for the Hydrostor A-CAES Project, Kern County, California* (Knabb et al. 2021).

DATA REQUESTS

128. Please provide an explanation of the discrepancy between the description of Appendix 5.3B on page 5.3-1 and the title on the cover sheet for Appendix 5.3B in TN 240771.

129. Please provide an explanation of why there are two different Appendices 5.3B.

130. Staff is unable to locate Appendix B within the series of submittals Appendix A, C, D and E (TNs 241008 through 241032). Appendix B is not referenced in the Application for Confidential Designation submitted on December 3, 2021 (TN 240820). Appendix B is listed in TN 240780 in the Table of Contents (Knabb et al. 2021, page iv). Appendix B in the TOC is entitled "Sacred Lands File Search Results and Correspondence with Native American Groups", which sounds remarkably like Appendix 5.3A (TN 240771). Is the referenced Appendix B the same as Appendix 5.3A? If so, please state that is the case. If not, please provide a copy of Appendix B or clarification of where it was docketed.

131. Please provide the location and/or TN for the copies of historic maps and aerial photographs of the project that are described as included in the Appendix 5.3B materials (Golder 2021, p.5.3-1). Staff is unable to locate these documents in Appendix 5.3B.

BACKGROUND: Transmission Lines

Section 3.2 of the AFC indicates that the project will be interconnected with the regional electrical grid by a new, single-circuit, three-phase, 230 kV generator tie-line with a right-of-way (ROW) width of between 75 to 125 feet total. Figure 1.4 identifies several routes and alternates interconnecting the project to the grid:

- A 10.9-mile preferred route interconnecting to the Southern California Edison (SCE) Whirlwind Substation;
- Seven (7) alternate routes interconnecting to the SCE Whirlwind Substation;
- A 3.5-mile route interconnecting to the site of the future Los Angeles Department of Water and Power (LADWP) Rosamond Substation; and
- Two (2) alternate routes interconnecting to the site of the future LADWP Rosamond Substation.

Figure 3-1, Representative Transmission Pole Gem Energy Storage Center, provides a conceptual illustration of the transmission pole design, indicating an approximate diameter of the pole foundation as 8 feet, 0 inches.

Additionally, Section 3.3.1 indicates that equipment will be installed by SCE, including facilities for a new 230 kV switch rack to terminate the gen tie-line, voltage transformers with steel pedestal support structures, three (3) line drops, as well as fiber optic cable including conduit and vaults from the point designated by SCE to the communication room at Whirlwind Substation, and an optical ground wire and single mode fiber optic cable to provide the two separately routed telecommunications paths, installed by GEM A-CAES LLC.

Activities associated with the construction, operation, and maintenance of transmission lines could directly or indirectly impact cultural resources. For example, grounddisturbing activities during construction typically have the highest potential to directly impact cultural resources by destruction of all or part of a resource. Approximately 7.5 acres of the proposed transmission line right-of-way were not surveyed due to access issues (Knabb et al. 2021, p.37).

DATA REQUESTS

132. Please identify or characterize the horizontal extent of ground-disturbing activities and the depths associated with the construction of the tie-line interconnect to the Whirlwind Substation and to the future LADWP Rosamond substation, including vegetation grubbing, pole foundations, access and maintenance roads, construction pads and/or lay down sites, and new equipment installation at the Whirlwind Substation, as well as associated fiber optic cables, ground wires, and vaults. Please identify any differences in ground-disturbing activities among the alternative tie-line routes.

133. What attempts are being made to gain access to the portions of the project area inaccessible for pedestrian survey, and when can more complete coverage be expected and reported on?

BACKGROUND: Proposed Road Improvements

In its response to data request 90, the applicant indicated that Sweetser Road/Hamilton Road to the east of the intersection with Tehachapi-Willow Springs Road will be graded and widened to at least one lane in each direction, and crushed rock will be laid out to provide temporary access to the site during construction (Golder 2022).

DATA REQUESTS

134. Please identify or characterize the horizontal extent of ground-disturbing activities and the depths associated with the improvements proposed to the intersection of Tehachapi-Willow Springs Road and Sweetser Road/Hamilton Road and the improvements to Sweetser Road to access the site.

135. Please indicate whether the areas of proposed transportation improvements have been subject to pedestrian survey to identify and document cultural resources, and if this survey has been completed, please provide the results.

REFERENCES

- **Demarais et al. 2022**—Demarais, Lisa, Emma Keethler, Alex Bethke, Kyle Knabb, and Caity Chandler, (TN 243019), *Historic Resources Evaluation Report. An Addendum to the Cultural Resources Technical Report for the Hydrostor A-CAES Project, Kern County, California*. Prepared for Golder, Walnut Creek, CA. Prepared by PaleoWest, LLC, Monrovia, CA. May 6, 2022.
- **Demarais and Mills 2022**—Demarais, Lisa, and Evan Mills, (TN 243019). Appendix A. California Department of Recreation Form 523, Willow Springs Village, P-19-000129. Update. April 26, 2022.
- **Golder 2021**—Golder Associates USA Inc., (TN 240751-9). 21-AFC-02, Application for Certification (AFC) Gem Energy Storage Center. Section 5.3 Cultural Resources. December 1, 2021.
- **Golder 2022**—Golder Associates USA Inc., (TN 245698). 21-AFC-02, *Willow Rock Energy Storage Center Data Request Response Set 1*. August 25, 2022.
- Knabb et al. 2021—Knabb, Kyle, Gena Granger, Dennis McDougall, Heather Miller, Garret Root, and James Potter, (TN 240780). *Cultural Resources Technical Report for the Hydrostor A-CAES Project, Kern County, California*. Prepared for Golder, Walnut Creek, CA. Prepared by PaleoWest, LLC, Monrovia, CA. October 6, 2021.
- **Montgomery et al. 2021**—Montgomery, Kyle, Alyssa Newcomb, and Ryan Glenn, (TN 243425), *Cultural Resources Assessment Report for the Rosamond A-CAES*

Facility Project. Prepared for Hydrostor Inc., Toronto, ON, Canada. Prepared by Rincon Consultants, Inc., Los Angeles. Rincon Project No. 20-10466. Confidential report on file, Southern San Joaquin Valley Information Center, California Historical Resources Information System, Bakersfield. February 2021.

- **NPS 1991**—National Park Service, U.S. Department of the Interior, *National Register Bulletin 16A: How to Complete the National Register Form*. 1991, revised 1997.
- **OHP 1995**—Office of Historic Preservation, *Instructions for Recording Historical Resources*. Sacramento, California. March 1995.
- **PaleoWest 2022**—PaleoWest, (TN 243425). Confidential Appendix A: Revised Records Search Maps. June 3, 2022.
- **Rotella et al. 2022a**—Rotella, Brianna, Ken Victorino, and Christopher Duran, Additional Cultural Resources Records Search and Updated Survey Coverage Map, Gem Energy Storage Center Project in Rosamond, Kern County, California. (Results of a Records Search extending from 0.5 to 1.0 mile surrounding the project site). Confidential. April 29, 2022.
- **Rotella et al. 2022b**—Rotella, Brianna, Ken Victorino, and Christopher Duran, (tn 243863). *Cultural Resources Assessment Report for Gem Energy Storage Center Project*. Prepared for Golder Associates Inc, Walnut Creek, CA. Prepared by Rincon Consultants, Inc., Los Angeles. Rincon Project No. 22-12489. Confidential report on file, Southern San Joaquin Valley Information Center, California Historical Resources Information System, Bakersfield. June 2022.

PUBLIC HEALTH

BACKGROUND: Health Risk Assessment (HRA) for Construction and Commissioning Phase

The construction phase of the project is expected to take approximately 63 months (followed by several months of startup and commissioning). A screening health risk assessment was conducted for the construction period due to emissions of diesel particulate matter (DPM). The estimated cancer risks at Point of Maximum Impact (PMI) is 56.5 in one million, higher than the significance threshold. The applicant said that the cancer risk at PMI is elevated because it is located at the eastern property line and its proximity to emission points; the cancer risk decreases significantly with distance. Also, based on a cancer burden estimate, no significant public health effects are expected during the construction phase.

DATA REQUESTS

136. In Table 2: Construction HRA Results (TN 242778, Appendix 5.9B), the risk at PMI is 56.5 in one million. This result is significant and needs to be evaluated. Please explain why the applicant did not evaluate this significant result and discuss how the applicant intends to use mitigation measures to reduce the cancer risk to a level of less than significant during construction.

137. Please reevaluate the risk at PMI with all applicable mitigation measures applied.

138. If the results of any health risk assessment results in a health risk of greater than 10 in one million, please provide a map containing health risk isopleths, including an isopleth showing the risk value of 10 in one million.

BACKGROUND: Health Risk Assessment (HRA) Modeling Files

The applicant filed DA51-1 - Revised AFC Section Public Health on April 25, 2022. The applicant also provided detailed risk and hazard values in the HARP output presented in Appendix 5.9F (electronic modeling files on CD-ROM). However, staff found these files provided by the applicant are not complete HARP files. There were no HARP input files; therefore, staff is unable to replicate or validate the HRA.

139. Please provide the complete HARP files for both construction and operation.

140. In more details, please provide the following input files:

Emission inventory for construction sources HARP INPUT\Data\GEM CONST_Sources.CSV HARP INPUT\Data\GEM CONST_Pathway1.CSV HARP INPUT\Data\GEM CONST_IMPORTPLOT.CSV

HARP INPUT\Data\GEM CONST_IMPORTEMS.CSV HARP INPUT\Data\GEM CONST_GLCLIST.CSV HARP INPUT\Data\GEM CONST_GLCPathwayLIST.CSV HARP INPUT\Data\GEM OP_Sources.CSV HARP INPUT\Data\GEM OP_Pathway1.CSV HARP INPUT\Data\GEM OP_IMPORTPLOT.CSV HARP INPUT\Data\GEM OP_IMPORTEMS.CSV HARP INPUT\Data\GEM OP_GLCLIST.CSV HARP INPUT\Data\GEM OP_GLCPathwayLIST.CSV Please also provide the input ADM file.

141. Please provide the input files of data (i.e., the "*.ROU" files) for AERMOD and HARP which contain the information of sensitive receptors and residence receptors, including grid identification numbers (i.e., HARP receptor numbers), type (ex: day care centers, nursing homes, schools) and corresponding locations (UTMs), so that staff can differentiate them from all other grid receptors.

142. Please provide all other related files to enable staff to replicate the health risk assessment.

TRANSPORTATION

BACKGROUND: Kern County Public Works Transportation Analysis Standards

The Kern County Public Works Development Standards, Division Nine, "Standards for Traffic Engineering" establishes the minimal acceptable standards for the application of traffic engineering and traffic planning principals in the design of the transportation system to promote the safe, efficient, and orderly movement of goods and people within unincorporated areas of Kern County. The traffic engineering standards presented in Division Nine are applicable to the proposed project. Staff needs to know more about the applicant's contact and coordination with Kern County planning staff to ensure the transportation analysis submitted in the project's Application for Certification (AFC) was prepared in accordance with all applicable laws, ordinances, regulations and standards (LORS).

For example, Section 902-1 Responsibility for Traffic Studies:

- Section 902-1.04 states special traffic studies may be required where special circumstances dictate the need for a traffic study (such as issues of safe access concerns, significant public opposition, request for deviation of standards, and large commercial/industrial centers etc.).
- Section 902-1.06 states transportation consultants are required to discuss projects with the Development Review Division prior to starting the study.
- Section 902-1.07 requires traffic studies be prepared, stamped, and signed by a licensed Traffic Engineer or Civil Engineer experienced in preparing traffic studies.

Section 902-2 Traffic Study Format:

- 902-2.01 Project Trip Generation and Design Hour Volumes must be calculated using the data contained within the Institute of Transportation Engineer's (ITE) Trip Generation Manual, latest edition, or more appropriate local data as approved by the Traffic Engineer. (Formula Averaging is NOT acceptable for the calculation of Peak Hour trip generation rates as published in the ITE Trip Generation Manual, latest edition.)
- 902-2.02 Capacity Analysis must be determined by the methods contained within the Highway Capacity Manual (HCM), latest edition.

The Willow Rock Energy Storage Center is a large industrial project that would require the construction of a new road (Sweetser Road) and improvements to Tehachapi-Willow Road to allow for primary and secondary access to the site. These roads are classified as Future Expressway and Secondary (collector) Highway by the Willow Springs Specific Plan Circulation Element. Depending on the final project design, a Specific Plan Amendment may be required to delete or downgrade the alignment. Additionally,

according to the applicant's trip calculations operation of the project would not generate more than 50 peak hour trips during morning and evening peak commute hours; however, construction of the project would generate a considerable amount of peak hour trips for approximately 60 months. Staff needs confirmation that the County would, or would not, require a special traffic study as stated in Section 902-1.04.

Lastly, staff reviewed the project AFC Transportation section and Appendix 5.12A "Turning Movement Counts" and could not locate a traffic engineer stamp or signature. Staff is concerned that the Transportation section has not been prepared in accordance with the Kern County Public Works Transportation Analysis standards and suggests the applicant contact and discuss the transportation analysis with Kern County Public Works and Kern County Planning and Natural Resource staff in order to be able to provide answers to the following data request.

DATA REQUEST

143. Provide a revised traffic study prepared, stamped, and signed by a licensed traffic engineer or civil engineer that meets all Kern County regulations and standards.

BACKGROUND: Kern County Council of Governments and Estimated VMT for Rosamond

Section 5.12.2.1 Significance Criteria in the Transportation section of the AFC states Kern County Council of Governments (Kern COG) provided information regarding the average vehicle miles travelled (VMT) per service population for the community of Rosamond. Staff has reviewed the 2021 Kern COG Regional Transportation Plan (RTP) and cannot locate this information.

DATA REQUEST

144. To confirm the accuracy of this information staff requests copies of correspondence with Kern COG staff and any other supporting documents.

REFERENCES

- **Kern 2010** Kern County Public Works. Development Standards, Division Nine, Standards for Traffic Engineering, Chapter II. Accessed on August 18, 2022. Available online at: https://kernpublicworks.com/building-andcode/engineering/development-standards/division-nine-standards-for-trafficengineering/
- **Kern COG 2022** Kern Council of Governments. 2022 Regional Transportation Plan. Accessed on September 6, 2022. Available online at: https://www.kerncog.org/category/docs/rtp/