DOCKETED	
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Project Title:	Corby Battery Energy Storage System Project
TN #:	265205
Document Title:	Corby BESS (24-OPT-05) Data Request Emails
Description:	Corby BESS (24-OPT-05) Data Request Emails
Filer:	Renee Longman
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	8/1/2025 10:23:18 AM
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From: Longman, Renee@Energy
To: Scott Galati
Cc: Chang, Kaycee@Energy; Knight, Eric@Energy
Subject: Corby BESS- Land Use
Date: Wednesday, July 9, 2025 5:56:00 PM
Attachments: image001.png

Hi Scott-

Provided below is a land use data request for Corby BESS. If you have any questions or would like a technical call to discuss, please let me know. Responses should be filed to the docket and include a copy of this request.

LAND USE

California Code of Regulations, title 20, Appendix B (g) (1) requires that the applicant provide a discussion of the measures proposed to mitigate adverse environmental impacts of the project and the effectiveness of the proposed measures. The proposed project's Agricultural Mitigation Plan (TN 259883, Appendix 4.2-A) filed on November 4, 2024 states, "…[t]he County has not yet established a farmland conversion mitigation program and ordinance." The Agricultural Mitigation Plan further references Solano County General Plan policy AG.1-1 as the County's current guidance on farmland conversion mitigation, which recommends a minimum mitigation ratio of 1.5:1. The applicant states that it would mitigate the proposed project's loss of 40.3 acres of agricultural lands by applying the 1.5:1 mitigation ratio, which would require 60.5 acres of agricultural mitigation. However, since that applicant filing, Solano County has adopted Ordinance No. 2024-1858 (November 5, 2024), which now defines the County's agricultural mitigation program requirements in detail. These requirements include a mitigation replacement ratio of 3:1 for projects that convert Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance (Solano County Code chapter 2.2, section 330 part (a)(1)). Eligible mitigation lands must be located in unincorporated Solano County and must "…[b]e of substantially equivalent FMMP [Department of Conservation Farmland Mapping and Monitoring Program] farmland classification or better compared to the land being converted" (Solano County Code chapter 2.2, section 340 part (a)(1-5).

The applicant has stated in the project's Agricultural Mitigation Plan (TN 259883, Appendix 4.2-A) that the proposed project would occupy a site containing the following designations: 12.9 acres of Prime Farmland; 9.0 acres of Farmland of Statewide Importance; and 18.4 acres of Unique Farmland, resulting in conversion of 40.3 acres of Important Farmland to a non-agricultural use. The County's 3:1 agricultural mitigation ratio requirement would mean that the project must mitigate the Important Farmlands conversion by ensuring that 120.9 acres of agricultural mitigation lands, that are an equivalent FMMP classification or better, are set aside within unincorporated Solano County.

Staff require additional information from the applicant to ensure the proposed project's Agricultural Mitigation Plan conforms with Solano County's more recently-adopted mitigation requirements.

REV 1 DR LAND-1. Please provide the following:

a. Provide confirmation from Solano Land Trust, or from an alternative qualifying entity as defined by Solano County Code chapter 2.2, section 380, that the proposed project's Important Farmland conversion resulting in a need for 120.9 acres of eligible mitigation lands within Solano County to meet the County's 3:1 mitigation ratio can be secured.

b. Once the applicant has confirmed that it can meet the 3:1 mitigation ratio requirement, please provide a revised project Agricultural Mitigation Plan that is consistent with Solano County's agricultural mitigation program requirements set forth in Ordinance No. 2024-1858.

c. If the applicant determines that Solano Land Trust or an alternative qualifying entity cannot secure a 120.9-acre agricultural easement on eligible lands in unincorporated Solano County, please provide detailed information on the steps for the project to comply with the County's alternative mitigation method via in-lieu fee payments, as specified in Solano County Code chapter 2.2, section 350 part (a)(1) and part (c). This could include any coordination or correspondence with the County and the in-lieu fee amount in dollars.

Staff are working on finishing their review of Data Request Responses (Batch 1 and 2). Please let me know if you have a few minutes tomorrow or later this week for a call. I would like to provide some updates on a couple of other items.

Thank you,

Renee Longman AICP, LEED AP
Project Manager
Siting and Environmental Branch
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1-916-937-3538

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

From:	Longman, Renee@Energy
To:	Scott Galati
Cc:	Chang, Kaycee@Energy; Crisp, Ann@Energy
Subject:	Corby BESS (24-OPT-05) Data Requests: Alternatives, Biology, and Cultural and Tribal Cultural Resources
Date:	Friday, July 25, 2025 10:34:00 AM
Attachments:	image001.png

Scott,

Provided below are data requests for alternatives, biology and cultural and tribal cultural resources for Corby BESS (24-OPT-05). If you have any questions or would like a technical call to discuss, please let us know. Responses should be filed to the docket.

ALTERNATIVES

Per California Code of Regulations, title 20, Appendix B (f) (1) and (f) (2), an application must include a discussion of a range of reasonable alternatives to the project, and a comparative evaluation of the engineering, economic, and environmental merits of the alternatives.

CEC staff has reviewed parcel maps of the area surrounding the Vaca-Dixon Substation and identified several parcels that meet the applicant's minimum acreage requirements of 25-acres, per application section 5.2, Site Alternatives. The alternative parcel sites listed below in REV 1 DR ALT-1 would require a shorter gen-tie line than the proposed project site, which may help reduce or avoid some of the project's potential environmental impacts (e.g., aesthetics/visual intrusion from new high voltage, overhead transmission line structures; conversion of prime soils; impacts to special-status species such as Swainson's hawk; etc.). CEC staff requests additional information on whether these parcels were considered by the applicant during the site screening process. If the applicant previously considered these parcels, please provide the specific reasons for their elimination from further consideration (i.e., justification for screening out).

The project application (section 5.0) provides information for alternative technologies but does not discuss alternative non-lithium ion battery technologies. To evaluate alternative technologies that could meet the objectives of the project while reducing the potential risks associated with the proposed battery technology, CEC staff requests additional information on the feasibility of non-lithium ion battery technologies.

REV 1 DR ALT-1. Staff request the following information to support the EIR alternatives analysis:

a. There are several parcels that surround the Vaca-Dixon Substation and other existing industrial infrastructure that may be good locations to site the proposed project and associated infrastructure. Siting in these areas would reduce the need for a long, high voltage gen-tie line. For each APN listed below, please provide a discussion of the potential feasibility as an alternative site. Consider combination of multiple parcels to meet the siting criteria described in the application. If the parcel or combination of parcels have been considered to be infeasible, provide an explanation of the specific reasons for elimination (e.g., cannot obtain site control, sensitive biological or cultural resources, zoning

incompatibility, etc.).

- APN 0109270010: Approximately 57-acre parcel located 0.3 mile northeast of the Vaca-Dixon Substation, north of I-80. Parcel has a Solano County General Plan designation of Agriculture (AG) and a zoning designation of Exclusive Agriculture A-20.
- APN 0109270040: Approximately 68-acre parcel located 0.3 mile east of the Vaca-Dixon Substation, south of I-80. Parcel has a Solano County General Plan designation of AG and a zoning designation of A-20.
- APN 0106250140: Approximately 96-acre parcel located 0.2 mile north of the Vaca-Dixon Substation, north of I-80. Parcel has a Solano County General Plan designation of Public Quasi-Public (PGP) and a zoning designation of A-20.
- APN 0133110020: Approximately 147-acre parcel located 0.2 mile south of the Vaca-Dixon Substation, south of I-80. Parcel has a Solano County General Plan designation of AG and a zoning designation of Exclusive Agriculture A-40 (A-40).

b. Please provide a discussion of the feasibility of the non-lithium-ion battery technologies listed below. If these technologies are infeasible, please provide justification for their infeasibility.

- Flow battery
- Sodium-ion battery
- Iron-air battery

BIOLOGICAL RESOURCES

Underground Route Option #1 (TN 262632) includes horizontal directional drilling (HDD) under the Solano Irrigation District (SID) canal within the Kilkenny Road right-of-way. Based on the California Department of Fish and Wildlife (CDFW) Biogeographic Information and Observation System (BIOS) Stream data and Google Earth it appears that the irrigation ditch outfalls to the Gibson Canal off of Lewis Road. Staff asked the applicant if it was possible to turn off the flow during HDD activities. The applicant stated the canal is used to convey water to irrigation users seasonally and did not believe it would be feasible to isolate this portion of the canal during the irrigation season. In the absence of shutting off flow, staff and CDFW recommend the applicant submit a Lake and Streambed Alteration Agreement (LSAA) notification as part of the Opt-In application

REV 1 DR BIO-1. Please submit the information that would be included in an LSAA notification for activities related to Underground Route Option #1. Please include all information as required in Fish and Game Code, section 1602(a)(1)(A)-(F) in a standalone document.

The Data Request Response to DR BIO-1d and DR BIO-5 included the resumes for

biologists who conducted biological resources surveys in support of the opt-in application; however, CDFW has requested to verify references for biologists who conducted the surveys. In addition, staff is unable to locate the resume for Arin Phillips.

REV 1 DR BIO-2. Please provide references with contact information for CDFW to verify the listed species experience for biologists who conducted biological resources surveys. Please provide the resume for Arin Phillips.

The Data Request Response to DR BIO-14 states the applicant is proposing to coordinate with Solano Land Trust to mitigate for the conversion of farmland with crop types compatible with Swainson's hawk foraging to support the regional Swainson's hawk population. The mitigation land plan needs to ensure that the right type of foraging habitat is conserved (i.e. alfalfa, tomato, etc.). Agricultural mitigation lands that do not restrict crop types may not be suitable, as some crops (e.g. orchards) do not provide adequate foraging habitat for Swainson's hawks.

In addition, the response did not indicate if mitigation lands would be protected in perpetuity under a conservation easement with a long-term endowment to ensure management of the proposed mitigation lands to mitigate for the permanent and temporary impacts to Swainson's hawk foraging habitat.

The applicant states that the 5.7 acres of additional Swainson's hawk foraging habitat would be created in an orchard where trees would be removed. This area should not be considered as mitigation for foraging habitat as it is directly under the path of the proposed transmission line and would lack a conservation easement.

REV 1 DR BIO-3. Please confirm that the mitigation lands would be protected in perpetuity under a conservation easement with sufficient funding in place to ensure long-term management of the mitigation site. The mitigation land must provide high quality nesting and/or foraging habitat for Swainson's hawk. Please provide a mitigation proposal to compensate for permanent and temporary impacts to Swainson's hawk foraging habitat. Please provide a discussion of any coordination with Solano Land Trust and proposed next steps.

CULTURAL AND TRIBAL CULTURAL RESOURCES

The Data Request Response to DR CUL/TRI-3 included copies of the site records pulled during the record search; however, copies of the reports listed during the record search was not provided.

REV 1 DR CUL/TRI-1. The record search results are provided in Subsection 4.5.3.1 of the application and in Confidential Appendix 4.5-A, and copies of the site records were provided as part of the Data Request Response to DR CUL/TRI-3. However, copies of the reports were not included in the confidential cultural resource filings. Please provide copies of all reports, in accordance with Appendix B (g) (2) (B).

In addition, the site record forms for P-48-000177 appear to be missing page 11 of 13. Please provide a complete form set for P-48-000177.

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

From:	Longman, Renee@Energy
To:	Scott Galati
Cc:	Chang, Kaycee@Energy; Fooks, Brett@Energy; Qian, Wenjun@Energy
Subject:	Corby BESS (24-OPT-05) Data Request: Worker Safety and Fire Protection, Air Quality, Greenhouse Gas Emissions, and Public Health
Date:	Thursday, July 31, 2025 4:01:00 PM
Attachments:	image001.png

Scott,

Corby BESS (24-OPT-05) data requests for worker safety and fire protection, air quality, greenhouse gas emissions and public health are provided below. If you have any questions or would like a technical call to discuss, please let us know. Responses should be filed to the docket. Thank you!

WORKER SAFETY AND FIRE PROTECTION

Safety training is an essential component of an occupational safety and health program for workers at any site. Staff need clarification with respect to Data Request Response Set#2 Part 1, Table 12-1 (TN 263281) that presents inconsistencies regarding the implementation and audience of the proposed training measures. For example, the Respiratory Protection training requirements are unclear. While LORS 8 CCR 5194 (p. 70) indicates that all employees will receive this training, other sections of the submittal suggest it will apply only to those required to wear respiratory protection. A similar inconsistency appears with training for Flammable and Combustible Liquid Storage and Handling. Table 12-1 specifies that only employees responsible for handling and storage will receive this training, while DRR HAZ-06 states that all construction workers will be trained in this area. These conflicting statements make it difficult to assess the adequacy and scope of the training program.

> **REV 1 DR WS-01.** Please clarify the intended audience for each training category listed in Table 12-1 coupled with other relevant sections. Specifically, confirm whether the training is intended for all employees, construction workers, or only those in specific roles.

Data Request Response Set 2 Part 1, section 12.6, pgs. 52 and 53 includes a description of fuel storage and handling activities during project construction; however, it does not provide sufficient detail on the specific fire prevention measures that will be implemented to reduce ignition risk during fueling operations. This information is necessary to confirm that fueling activities will be conducted in a manner that minimizes fire risk to workers, equipment, and the surrounding environment.

> **REV 1 DR WS-02.** Please provide a description of the fire prevention measures that will be implemented for fuel storage, handling, and distribution.

Staff would like additional information regarding compliance with CFC §503 as proposed in Conditions of Certification Worker Safety-7(b), most particularly 503.2.3-Surface. DR Wildfire-02 response states that access roads will be surfaced with crushed rock. However, staff notes that Dixon Fire Department Fire Code Section 16.02 amends the definition of "all-weather surface" under CFC §503.2.3 to require a finished surface composed of hard-packed road base (AB), asphalt, concrete, or

pavers all capable of supporting a 75,000-lb vehicle load. Crushed rock, as proposed, may not meet this requirement without further detail.

> **REV 1 DR WS-03.** Please provide details regarding compliance with CFC 503 and in conformance with Dixon Fire Code. If crushed rock is still proposed, please provide documentation or engineering justification demonstrating it meets the required performance criteria.

Data Request Response Set#2 Part 1,Tables 12-4 and 12-5 (TN 263281), which summarize applicable LORS, do not currently provide adequate detail regarding project-specific applicability and the means by which conformance will be achieved. To support staff's evaluation of LORS compliance, each listed requirement should be clearly evaluated in the context of the proposed project, with the method of conformance explained and cross-referenced to relevant sections of the application. As currently presented, some citations within the tables are not properly aligned with the LORS they reference. For example, 8 CCR 5160, which addresses the use, handling, and storage of hazardous substances, is linked to a discussion of hot work permits. Additionally, while many LORS are marked as being satisfied through training programs, several others such as NFPA 69 which pertains to explosion prevention via system design are primarily addressed through project engineering and design, not training.

> **REV 1 DR WS-04.** Please revise Tables 12-4 and 12-5 to clearly identify how each LORS is applicable to the proposed project; Describe the method of conformance for each LORS (e.g., training, operational procedure, design feature, or monitoring plan); Provide accurate references to the sections of the application or supporting documents that substantiate conformance; Ensure that each LORS is appropriately matched with a relevant discussion. Also please include and evaluate NFPA 850 as a LORS per the Proposed Conditions of Certification.

Data Request Response #2 Part 1, Section 9.0 of the Hazard Mitigation Analysis (HMA) provided in Appendix 11-A (TN263281) includes several recommendations to ensure project compliance with specific LORS. It is unclear whether these have been formally incorporated into the project design or operational protocols. Additionally, the HMA recommends backup power for the explosion control system (e.g. Section 4.4.1), and the NFPA 69 Compliance Report states this backup supply will be in place; however, further discussion was not identified.

> **REV 1 DR WS-05.** Please explain how each of the recommendations in Section 9, specifically items 1a through 1e and the explosion fan backup power discussed in Section 4.4.1, will be addressed in the project. For each, describe how and where it will be implemented.

WORKER SAFETY AND FIRE PROTECTION, AIR QUALITY, GREENHOUSE GAS EMISSIONS, AND PUBLIC HEALTH

In response to DR WS-3 (TN 263281 and TN 263282), the applicant provided a plume modeling analysis of the impacts during potential BESS thermal runaway events. However, it appears that only carbon monoxide (CO) and carbon dioxide (CO_2) were modeled, despite UL9540A testing (provided by the applicant [TN 263281, Appendix 11-A Hazard Mitigation Analysis, Table 3]) indicating the release of a broader range of toxic and flammable compounds during cell and/or module thermal runaway.

These compounds include acetylene, benzene, toluene, dimethyl carbonate, ethyl methyl carbonate, hydrogen, methane, propane, ethylene, and others (TN 259900, Volume 2 App 4-9 Hazards Appendices). In addition, the applicant used the Immediately Dangerous to Life or Health (IDLH) values as the end-point of the plume analysis. However, staff believes that the use of IDLH is inappropriate to determine on-site or off-site human health risks. Staff is requesting an estimate of the worst-case maximum impacts for the project at the nearest sensitive receptors. To further assist the CEC staff analyzing the air quality and public health impacts of the batteries during thermal runaway/fires, we request the following supplemental information:

REV 1 DR WS/FP/PH-1. Please provide the exact locations (latitude and longitude or UTM coordinates) and dimensions of the BESS enclosures for modeling purposes. Please provide the following input parameters for a dispersion modeling analysis of all potential criteria air pollutants, greenhouse gases, and toxic air contaminants (TACs) that could be generated during combustion: emission rates (in grams/second), exhaust temperature, pressure, and exhaust gas velocity resulting from battery damage or thermal runaway/fires. Please also provide detailed calculations and justification for parameters used in the calculation of the air pollutant density values. Please include the calculation worksheet if available.

REV 1 DR WS/FP/PH-2. Please provide any available data on the potential emissions of particulate matter, metals, hydrogen chloride, hydrogen fluoride, and hydrogen cyanide during BESS thermal runaway/fire events.

REV 1 DR WS/FP/PH-3. Please provide a dispersion modeling analysis of all potential criteria air pollutants and TACs for the thermal runaway/fire scenario using a well-validated model (AERMOD and HARP2 preferred).

REV 1 DR WS/FP/PH-4. Please compare the modeled fire-related TACs concentrations to the Office of Environmental Health Hazard Assessment (OEHHA)/California Air Resources Board (CARB) 1-hour acute Reference Exposure Levels (RELs) and demonstrate whether the acute hazard Index (HI) of TACs would be higher than the significance threshold of 1.0 at sensitive receptors. If an OEHHA 1-hour acute REL is not available, a level 1 U.S. EPA Acute Exposure Guideline Level (AEGL) shall be used as the threshold of significance. Please demonstrate whether the criteria air pollutant impacts would cause or contribute to any exceedance of ambient air quality standards. If exceedances occur, provide a detailed Emergency Response Plan and outline the applicable regulatory notification requirements.

Renee Longman AICP, LEED AP

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