

DOCKETED	
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Questions regarding the Prairie Song Plume Study from DRR 5 (TN 268721)

From Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>

Date Thu 3/12/2026 3:02 PM

To Garrett Lehman <glehman@covalinfra.com>

Cc Erin Phillips <ephillips@dudek.com>; Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>

Bcc Qian, Wenjun@Energy <Wenjun.Qian@energy.ca.gov>

 1 attachment (22 KB)

Question List for Prairie Song Plume Study 3-12.docx;

Hello Garrett,

Please see below questions regarding the Prairie Song Plume Study from DRR 5 (TN 268721) [also attached]. Please file your responses to the docket, along with a copy of these questions.

1. In the modeling files, two different types of sources appear to have been defined. Line source (BLINE1) and four point sources (SUB1, SUB2, FIRE1 and FIRE 2). Please clarify which source type was used in the thermal runaway plume simulation. If the other sources are not used in the thermal runaway plume analysis, please clarify how they are used in other parts of the analysis.
2. None of the sources mentioned above represent the BESS unit closest to the residents. Please provide the justification for the selected source location. If the line source was used, please explain why the source was not located closest to the nearest residence.
3. Attachment A of DRR 5 indicates that the off-site nested receptor grid was established with spacing of 25 m, 50 m, 100 m, etc., as summarized in the table for "Receptors - Off-Site Nested Grid". However, the receptor definition file (ROU file) provided does not appear to include receptors with these spacing. Please confirm whether the correct receptor file was provided. If not, please submit the correct receptor file.
4. In Attachment A, Table 2 LSFT AERMOD Impact X/Q, the impact at MEIR is stated as 131.27 ($\mu\text{g}/\text{m}^3$)/(g/s), and the impacts at receptors 10 m and 20 m downwind are shown as 14,171.75 ($\mu\text{g}/\text{m}^3$)/(g/s) and 6,493.89 ($\mu\text{g}/\text{m}^3$)/(g/s) respectively. Please provide the corresponding complete AERMOD files, the receptor locations at which these maximum impacts occur, and the meteorology data used for the 10 m and 20 m downwind impacts calculation. Please explain how the meteorological data were processed for this specific modeling analysis.
5. In the submitted spreadsheet file, "Attachment A.xlsx," cells E29 and E30 report HF and HCl emission values of 1263.72 mg/kg (before applying 0.5 conservative reduction factor from pouch to cylindrical cells) and 170.43 mg/kg, respectively. These values do not appear to be directly reported in the referenced source, "Liu 2021, Experimental study on thermal runaway and fire behaviors of large-format lithium iron phosphate battery." Please provide the calculations or methodology used to derive these values.
6. The emission rates for HF and HCl (shown above) used in the applicant's analysis seem to be much lower than values reported in other published literature, such as HF of 11,320 mg/kg and HCl of 2,575

mg/kg reported in “ Ramboll 2024: VISTRA MORRO BAY BATTERY ENERGY STORAGE SYSTEM (BESS) PROJECT” (<https://neveragainmosslanding.org/wp-content/uploads/2025/04/Vistra-Morro-Bay-OCA-Ramboll-March-2024.pdf>). Please provide supporting documentation and justification demonstrating that the emission factors used are representative and conservative for modeling the project impacts during any BESS thermal runaway/fire event.

7. In Attachment A, Table 4 AERMOD Maximum Impact X/Q, the reported MEIR values are 872.12 for 1-hour and 661.22 for 8-hour. However, the AERMOD plot files provided are not consistent with these values. 01H1GALL.PLT indicates a maximum impact of 110.98 and 08H1GALL.PLT indicates a maximum impact of 18.49. Both are lower than the values in Table 4. Please clarify the discrepancy between the values reported in Table 4 and those shown in the provided PLT files. Please confirm whether the values in Table 4 are correct. If the values in Table 4 are correct, please provide the corresponding PLT files.
8. The meteorological data the applicant used is from Palmdale (as per Table 2), not from the one closer to Acton (<https://www.pwsweather.com/station/pws/KCAACTON3>). Palmdale and the airport are located in a much wider flat area where the mountains are more distant than at the site. According to people who live near the site and in Acton, the "funnel action" of the canyon forces the winds to flow from the west (or SW as the wind rose shows) to east, and east to west as the prevailing directions. Please demonstrate how the meteorological data from Palmdale would be representative of the project site. If this influenced the AERMOD results, please redo the modeling analysis using the more appropriate meteorological data.

Thank you,
Kaycee

Kaycee Chang (she, her, hers)

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