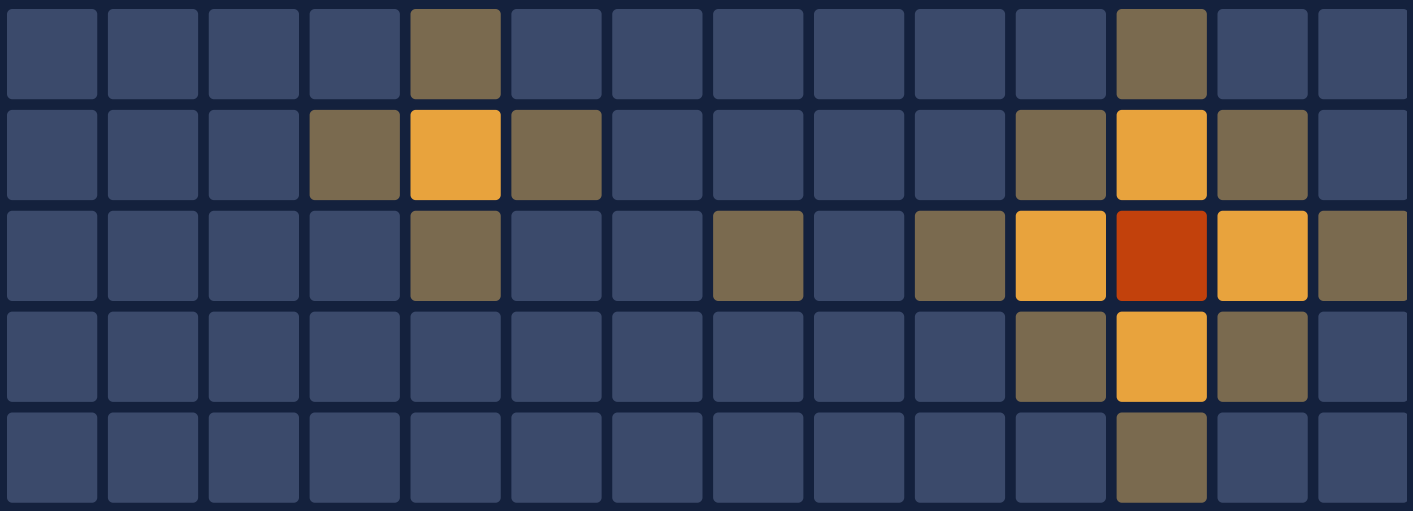


BATTERY LOGBOOK PLAN · PRE-SUMMER EXTERIOR THERMAL AND VISUAL SCAN

Battery-Storage Site Thermal Scan

Sample Storage Site B · 100 MW / 400 MWh · Kern County, California (fictional)

Assets scanned
48 battery enclosures · 24 inverters (PCS) · 1 main transformer

Scan date
May 18, 2027, 5:05 to 6:35 PM, during discharge (sample)

Prepared for
[Storage owner] / [O&M operator]

Report
TAI-BES-SAMPLE-01

Tessera
ASSET INTELLIGENCE

SAMPLE · FICTIONAL SITE · ILLUSTRATIVE DATA

1 · SUMMARY

Two high-priority items before the summer peak

73
assets scanned during discharge

5
findings logged

2
high-priority items: one enclosure cooling fault, one hot terminal

0
critical findings

Tessera scanned the site from outside the fence line and from the access aisles during an evening discharge, when enclosures, inverters and the transformer run warm and faults stand out. No anomaly met the critical threshold. The two high-priority items should be cleared before peak summer dispatch.

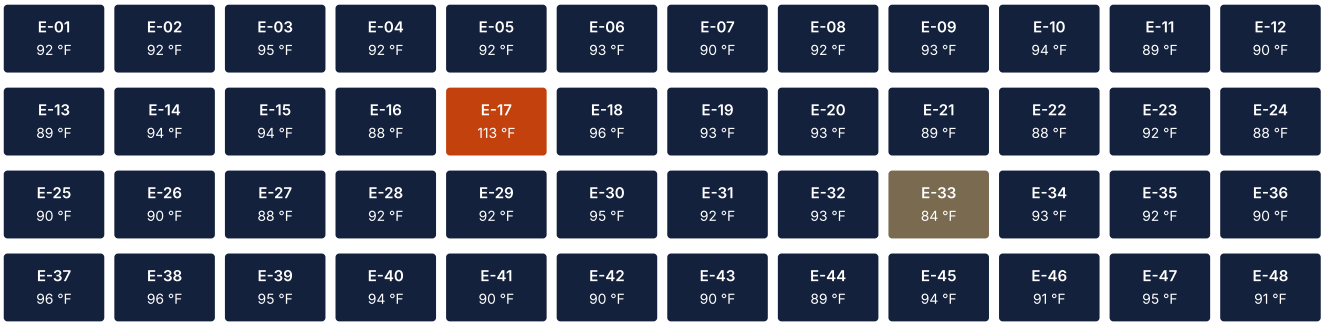
ID	Asset	Finding	Severity	Suggested action	Respond
F-1	E-17	HVAC condenser on the east face not running; enclosure skin about 20 °F hotter than the median of its row	High	Check the HVAC unit and its breaker; review the enclosure's cell temperature logs	7 days
F-2	PCS-11	Hot spot at the lower DC terminal, about 43 °F (24 °C) above the matching terminal on the next cabinet	High	Torque check and IR recheck with the cabinet open, under qualified-person procedures	14 days
F-3	E-33	Cool air pattern along the door edge: likely a worn door seal	Elevated	Inspect and replace the door gasket	30 days
F-4	MPT-1	Radiator bank 3 about 14 °F cooler than banks 1, 2 and 4: possible closed valve or blocked flow	Elevated	Check radiator valves and oil flow at the next outage	Next outage
F-5	Fence line	Dry grass and tumbleweed within 10 ft of enclosures E-41 to E-48 (visual)	Watch	Mow and clear before fire season	30 days

Response times are suggestions; the owner's maintenance program and manufacturer guidance govern.

2 · ASSET TEMPERATURES

Enclosures and inverters at a glance

Battery enclosures: maximum exterior surface temperature



■ within 6 °F of the median (92 °F) ■ 8 to 15 °F above ■ more than 15 °F above ■ more than 6 °F below

Inverter (PCS) cabinets: maximum exterior temperature (°F)

PCS	01	02	03	04	05	06	07	08	09	10	11	12
Max °F	109	108	101	103	108	105	109	104	102	106	**138**	107
PCS	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**
Max °F	103	102	104	109	107	102	103	102	101	107	102	105

Exterior surface readings only; they show cooling and connection problems but do not measure cell temperature inside an enclosure. Air temperature at the time of the scan was 84 to 88 °F.

3 · LOGBOOK ENTRIES

Ready to file in the maintenance logbook

Formatted for the owner's maintenance records under CPUC General Order 167-C. Copy these rows into the site logbook and close each one with the date and the work done.

Date found	Asset	Condition	Action	Assigned to	Closed	Status
May 18, 2027	E-17	HVAC condenser on the east face not running; enclosure skin about 20 °F hotter than the median of its row	Check the HVAC unit and its breaker; review the enclosure's cell temperature logs	[Name]	[Date]	Open
May 18, 2027	PCS-11	Hot spot at the lower DC terminal, about 43 °F (24 °C) above the matching terminal on the next cabinet	Torque check and IR recheck with the cabinet open, under qualified-person procedures	[Name]	[Date]	Open
May 18, 2027	E-33	Cool air pattern along the door edge: likely a worn door seal	Inspect and replace the door gasket	[Name]	[Date]	Open
May 18, 2027	MPT-1	Radiator bank 3 about 14 °F cooler than banks 1, 2 and 4: possible closed valve or blocked flow	Check radiator valves and oil flow at the next outage	[Name]	[Date]	Open
May 18, 2027	Fence line	Dry grass and tumbleweed within 10 ft of enclosures E-41 to E-48 (visual)	Mow and clear before fire season	[Name]	[Date]	Open

Scan record

Operating state	Discharging at about 82 MW for the full scan window
Weather	Clear; wind 4 to 7 mph; air 84 to 88 °F
Aircraft and sensors	US-made drone not on the FCC Covered List; radiometric thermal (640 × 512) plus RGB
Standoff	Flown over access aisles at a fixed standoff from energized equipment; no flight over the substation bus
Site safety	Site orientation completed; escorted by [O&M technician]; NFPA 70E-trained crew

4 · METHOD AND LIMITS

How the scan was done

- Scheduled with the operator for a discharge window, when equipment runs warm and faults show clearly.
- Each enclosure, inverter and transformer captured from two sides in radiometric thermal and RGB.
- Temperatures compared with like assets in the same row and operating state, not with fixed limits.
- Findings reviewed by a thermographer; each is tied to an asset ID from the site's single-line diagram.

Limits. This is an exterior scan. It does not replace the battery management system, the manufacturer's maintenance schedule or internal inspection by qualified personnel. Open-cabinet thermography of electrical equipment is done only by the operator's qualified staff.

Prepared by

Infrared thermographer	[Name], Level 1 thermographer
Remote pilot in command	[Name], FAA Part 107 certificate [number]

This sample uses a fictional site and illustrative data.