

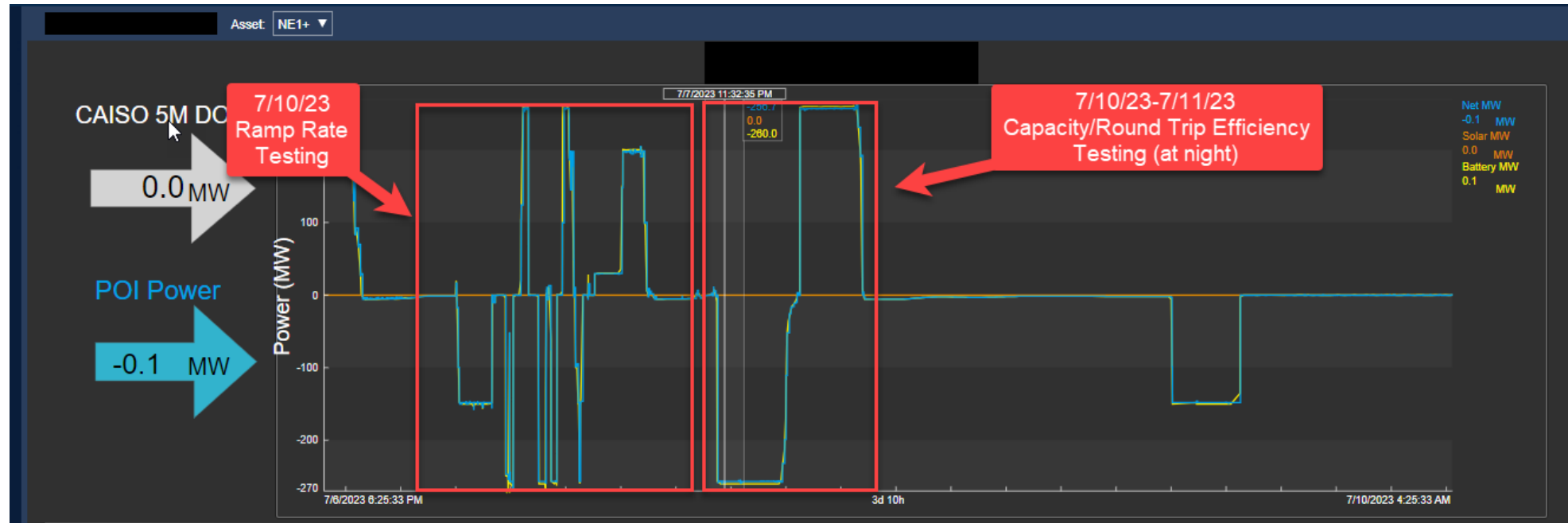


Update on BESS Extreme Heat Operational Issues

Background

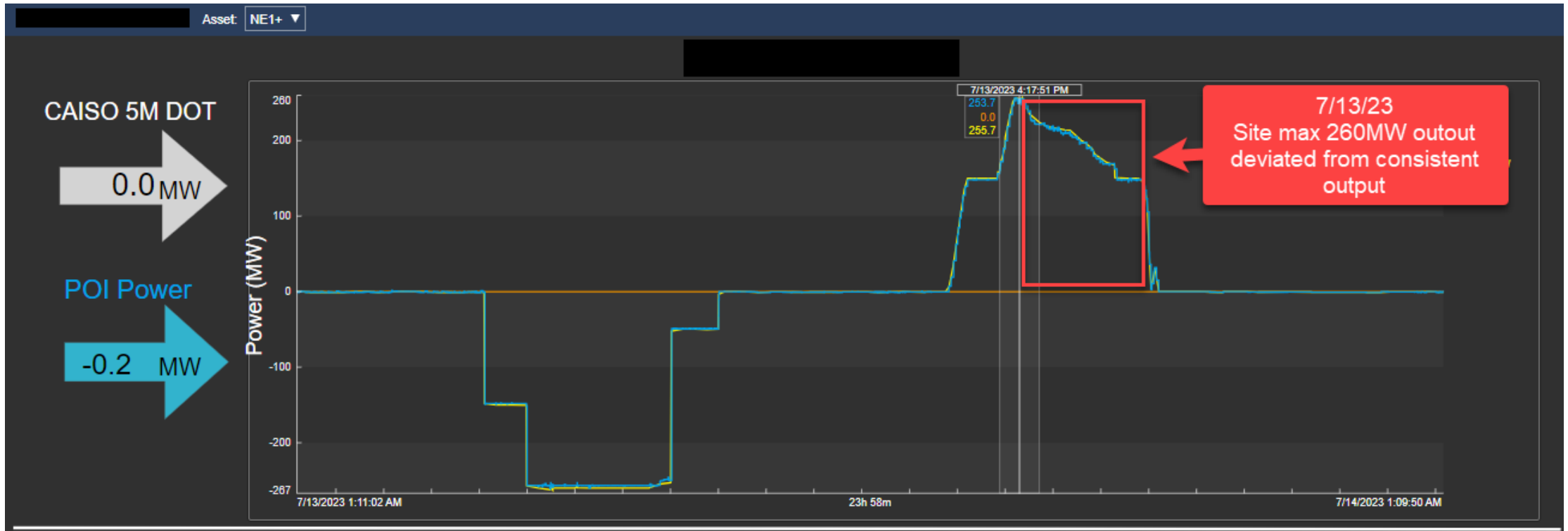
- SRP established a PPA contract to install and operate a 260MW PV/260MW, 1040MWh BESS.
- Operational expectations is as a Hybrid site with the BESS providing solar smoothing during solar forecast uncertainty.
- Commissioning involved first placing the 260MW BESS in service followed by staged PV installation.
- BESS Commercial Operation occurred on 7/10/23 and SRP began operation as a BESS only site.
- Temperatures in July were 110F +

BESS site initial testing 7/10-7/11



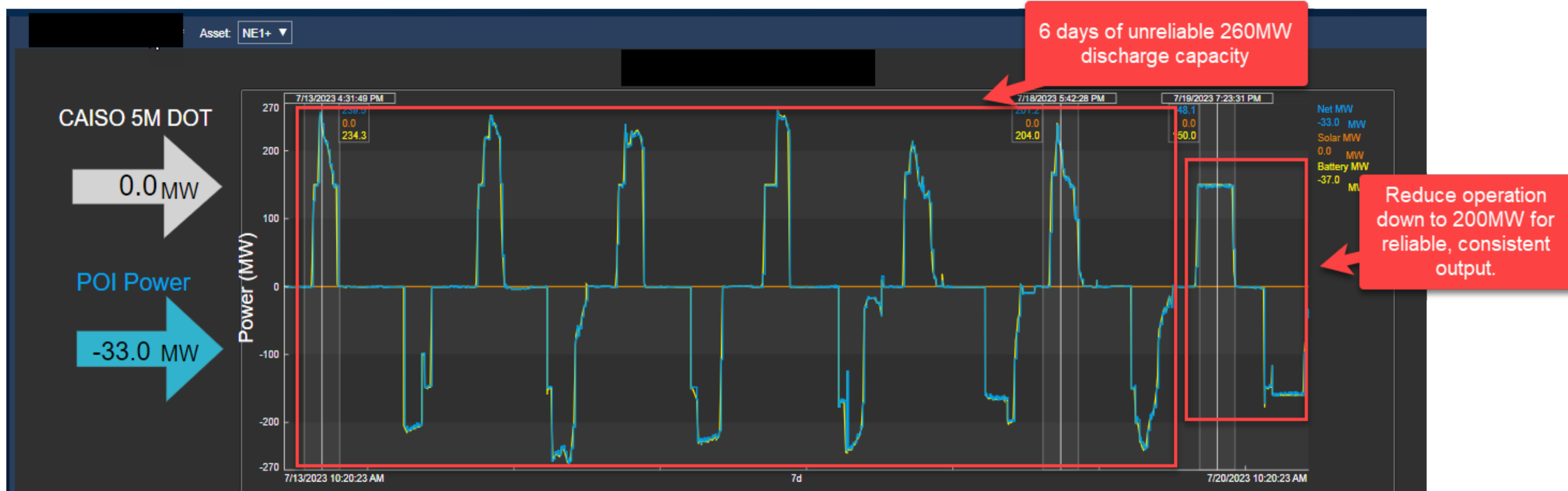
- Ramp rate testing and Capacity/Round Trip Efficiency (RTE) test performed successfully.
- Note: RTE was performed at night and operated at 260MW charge/discharge successfully

BESS site first deviation from full capacity (7/13)



- First day of scheduled BESS 260MW discharge, inverters began tripping and reducing output

BESS continued max capacity deficiency and reduction to 200MW



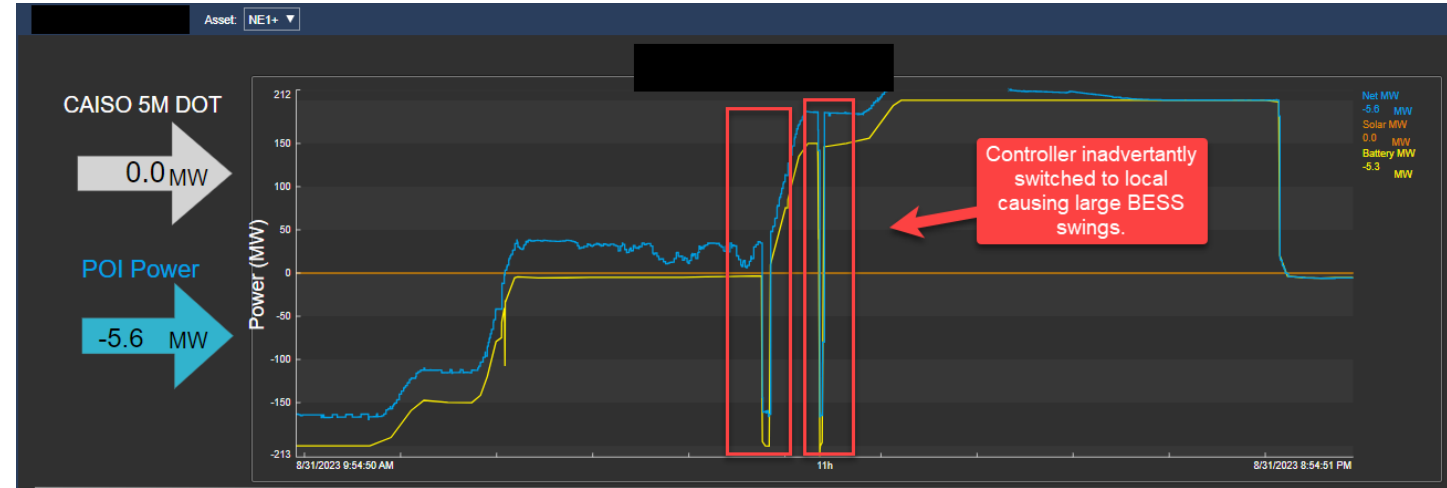
- After 6 days of struggling 260MW operation, SRP moved to a 200MW capacity operation

Potential Extreme Heat Inverter Tripping Issue Discovered

- Based on the apparent fact that 260MW RTE tests were in the middle of the night and issues became known during high heat conditions points to inverter extreme heat issues.
- Plant operator still to confirm root cause of inverter trips, potentially related to inverter firmware upgrades.

Other BESS Challenges – Controller Local/Remote and Tuning Oscillations

- BESS site controller switched automatically from Remote to Local and swinging from large discharge to charge



- Challenges with developer integrator on BESS tuning testing. Issues with large BESS swings while tuning available BESS units to a consistent output.

thank you!