



Noise Constraint Analysis for Nexamp - Jerry Smith Storage, LLC

July 9th, 2026

Executive Summary:

Tesla, in its capacity as the BESS equipment supplier to the Jerry Smith Storage, LLC project, (the "Project"), has reviewed the Project's noise constraints provided to us by Nexamp (the "Project Owner") and has run a simulation analysis to determine whether the operational output and performance of the Tesla Megapack 2 XL ("Megapack") system would be affected by a noise-reducing fan speed limitation imposed on the thermal management system.

Tesla's simulation results confirm that Tesla can firmware limit the maximum fan speed to 40% at commissioning without operational or performance concerns, resulting in a maximum Sound Power Level of 82.3 db(A)-W 0.5m above the centre of each Megapack, and a maximum Sound Pressure Level of 52.4 dbA measured at 10m distance and 2m above grade from the front of each Megapack.

Background on Firmware Limiting Fan Speeds:

Each Megapack has rooftop fans as part of the thermal management system. These fans are the critical component to consider when determining the noise impact of the Megapack. The Megapack's thermal management requirements, and consequently fan speeds, are highest when the system has just completed a full charge cycle immediately followed by a discharge cycle during a period of time when ambient temperatures are at their highest.

These fans can be firmware-limited by Tesla to different speed limits to reduce noise emissions and comply with local noise requirements. During project commissioning, Tesla engineers can configure the reduced-fan-speed firmware limitation in the Tesla System Controller. For clarity, this setting cannot be edited by the Project Owner after it has been set by Tesla.

As a condition to configuring these settings, Tesla would contractually implement operating constraints on the Project in the Systems Purchase Agreement between Tesla and the Project Owner. These provisions state that Tesla is not responsible for any system damage resulting from operation outside the defined operating conditions, which include a maximum operating temperature of 37.8 degrees Celsius and a maximum daily throughput of 1 cycle.

Simulation:

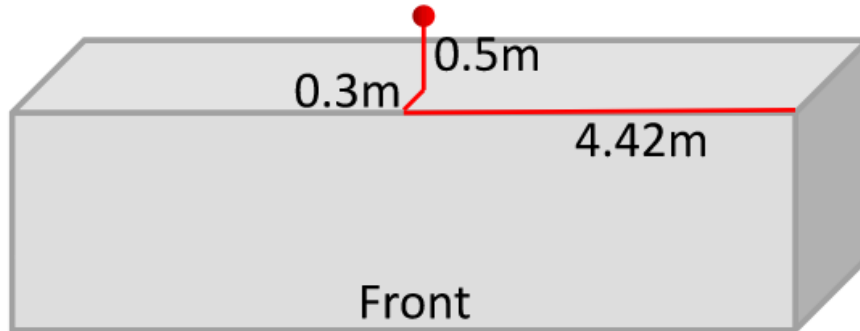
The Project Owner determined that a Max Sound Power Level of 82.3(db(A)-W) as measured at 0.5m above the centre of the Megapack would allow the project to



comply with local noise restrictions. This corresponds to a fan speed limitation of 40%.

4-hour Megapack 2 XL Noise Specifications (FN03)	
Max Fan Speed	40%
Max Sound Power (db(A)-W) at 40% Fan Speed	82.3
Max Sound Pressure (dBA) at 40% Fan Speed	52.4

For clarity, the Max Sound Power level datapoint is a single weighted sound power level for use as a point source (one per Megapack). This data should be modeled on top of a Megapack as shown below.



In order to commit to implementing this fan-speed limitation at Jerry Smith Storage, LLC, Tesla needed to verify that the performance of the Megapacks would not be affected by a reduction in the Megapack's thermal management capability. To verify this, Tesla ran fan-speed simulations under project-specific power profiles and location-specific ambient temperatures to confirm that there would be no violations of the Megapack's temperature and pressure thresholds or impact on a system's energy retention. For ambient temperature data, the model used data from the ASHRAE database for the nearest available weather station.

Simulation Inputs	
Maximum Temperature (degC)*	37.8
Weather Profile	NY Ithaca Tompkins Regional AP (Dfb)
Power Profile	Worst-case 1 cycle/day profile
Fan Duty Cycle	40%

*Provided by Nexamp.

To pass the test that allows Tesla to commit to this limitation, the simulation must demonstrate that at no point does the cell temperature of the Megapack with the fan speed limit applied exceed Tesla's defined temperature thresholds.

T E S L A