

CASE STUDY

Low noise power solution for urban construction site

Manchester, UK
Hotel Construction



Introduction & Project Information

- **Project location:** Rochdale Rd, Manchester, UK
- **Project type:** Commercial Development
- **Delivery date:** May 2025
- **Loads:** Tower Crane, 3 x Hoists, General Site Power (Lighting, CCTV, Turnstile)
- **ESS Model:** Entainer M
- **Input current to the ESS:** 80 amps

Site Setup



Figure 1. With 80 amps recharging from a 100kVA generator, ~7am-8pm only.

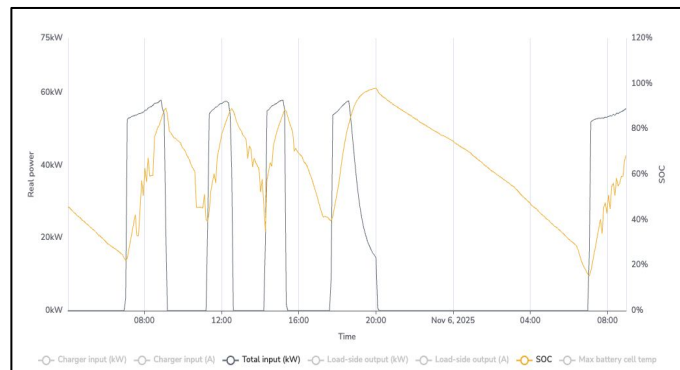


Figure 2. Flexible scheduling to ensure continual overnight operation during "silent hours"

Results

"Due to local residents, there are a lot of silent hours and restrictions to adhere to, and this is where the battery came into its own. We could schedule, through the system, that it is at peak charge to run night-time lights, CCTV etc. throughout the silent hours so that we aren't disturbing neighbours and then the DG can kick in to charge in the morning.

Throughout the project, using the battery, we've shown really excellent results...and overall we're really happy."

Chris Gibson - Head of Environment & Sustainability at GMI Construction

- 25% Diesel Generator running time¹
- 50% financial cost saving against diesel.²
- 70% CO₂ reduction.³
- Zero Noise complaints during silent hours due to built in smart charge scheduling feature
- >98% Uptime

¹ Versus GMI's expected running time for the duration of the project without an ESS. Based on equivalent generator sizing running at 50% capacity.

² Based on a diesel price of £1.40 per litre.

³ Assuming diesel CO₂ emissions to 2.62kg per litre

