

ENERGY STORAGE SOLUTIONS

Powering Construction with Clean Energy
Slashing Diesel Generator Use by 85%



It is estimated that 40 million litres of diesel are consumed by generators in the Irish construction sector annually, 700 million litres in UK and 14 billion litres across the EU.

PSE technology can reduce that consumption by **66%**

Our Value Proposition



Off-Grid Construction Sites Powered by Diesel Generators

The Problem

- ✘ Continuous operation of generators
- ✘ Mandatory Silent Operating Hours Restricts Generator Use
- ✘ Needless Diesel Consumption
 - ✘ Noise & Fumes
 - ✘ Emissions
- ✘ Downtime Due to Generator Service Issues
- ✘ Builders Need ESG Credits for Tenders

Our Solution



PSE BESS provides power, generator charges battery only when needed

The Results

- ✓ Generator Operation Slashed by 85%
- ✓ Silence Achieved Through use of Battery
- ✓ Diesel Consumption more than halved
- ✓ More Pleasant Work Environment
 - ✓ Emissions Slashed
- ✓ Increased Uptime Worth €1,000's Per Hour
 - ✓ ESG Score Improves

Our Value Proposition



Crane Application – Elliott Group

Silent Crane operation in residential area with just 2 hours generator operation daily



Whole Site Solution – Clancy

2.5Hr Generator Running
24 Hour Supply to Full Site



Site Compound & Silo Application - Clancy

24 hour supply with 1.5 Hour Generator Operation

CLIENT TESTIMONIAL

“All our generators were running 11 hours per day prior to the arrival of the battery. Once the system went online, we were immediately able to stand down one of our three 200KVA generators. By the second week we were able to decommission a second generator and were able to reduce the run time of the remaining 200KVA generator to 2.5 hours per day”.

Mark Clancy, Plant Manager, Clancy

What We Do



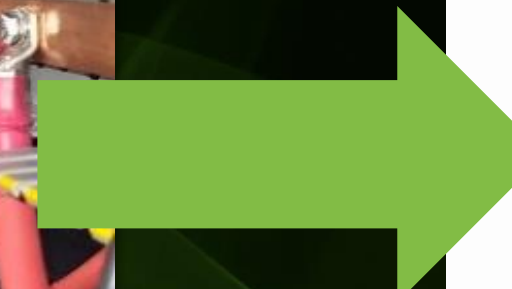
Battery Cells



Battery Packs With
Battery Management Systems



Plug and Play Energy Storage with Integrated Inverters



PSE Power supply battery energy storage systems in Ireland for both off & on grid applications

We Innovate to Differentiate



Faster Charge/Discharge = Lower Costs

- PSE Batteries reduce generator run-time and require less capacity to deliver the same results
- Fewer materials, lower weight, and reduced system costs

Superior Power Management

- Our Battery Management System (BMS) is rated 50% higher than industry standard – handles peak loads better than competitors

Smaller Footprint by Design

- Compact enclosures make our units smaller than the competition—saving space without sacrificing performance

Real-Time Insight

- Our custom dashboard captures data every second – providing industry leading valuable load profile analytics to customers for equipment like cranes

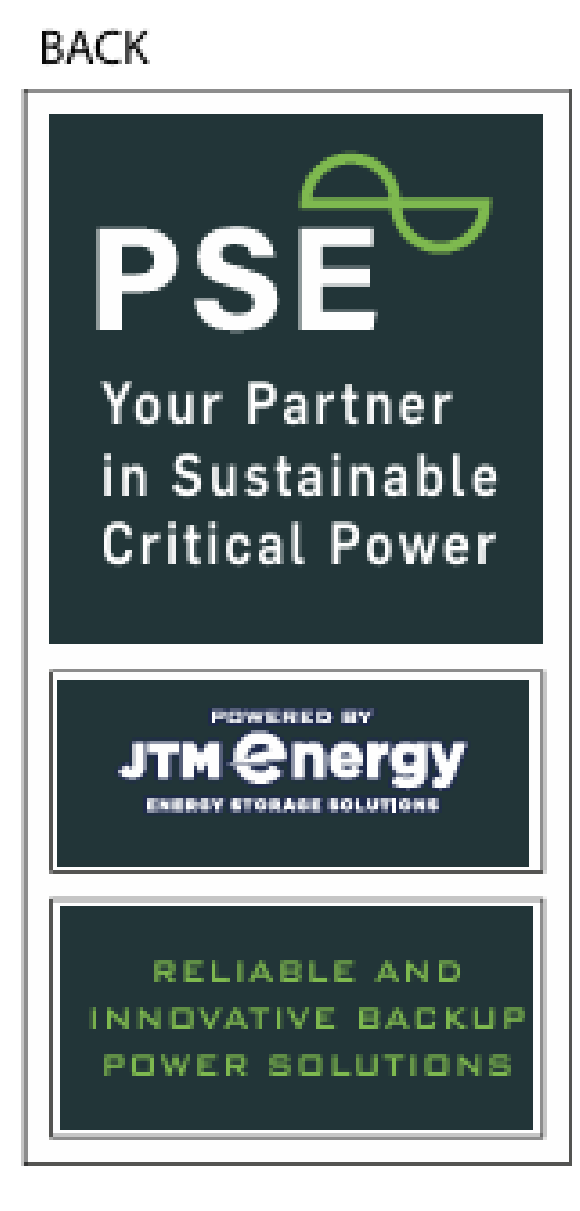
Battery Energy Storage Range



Three Phase Frames

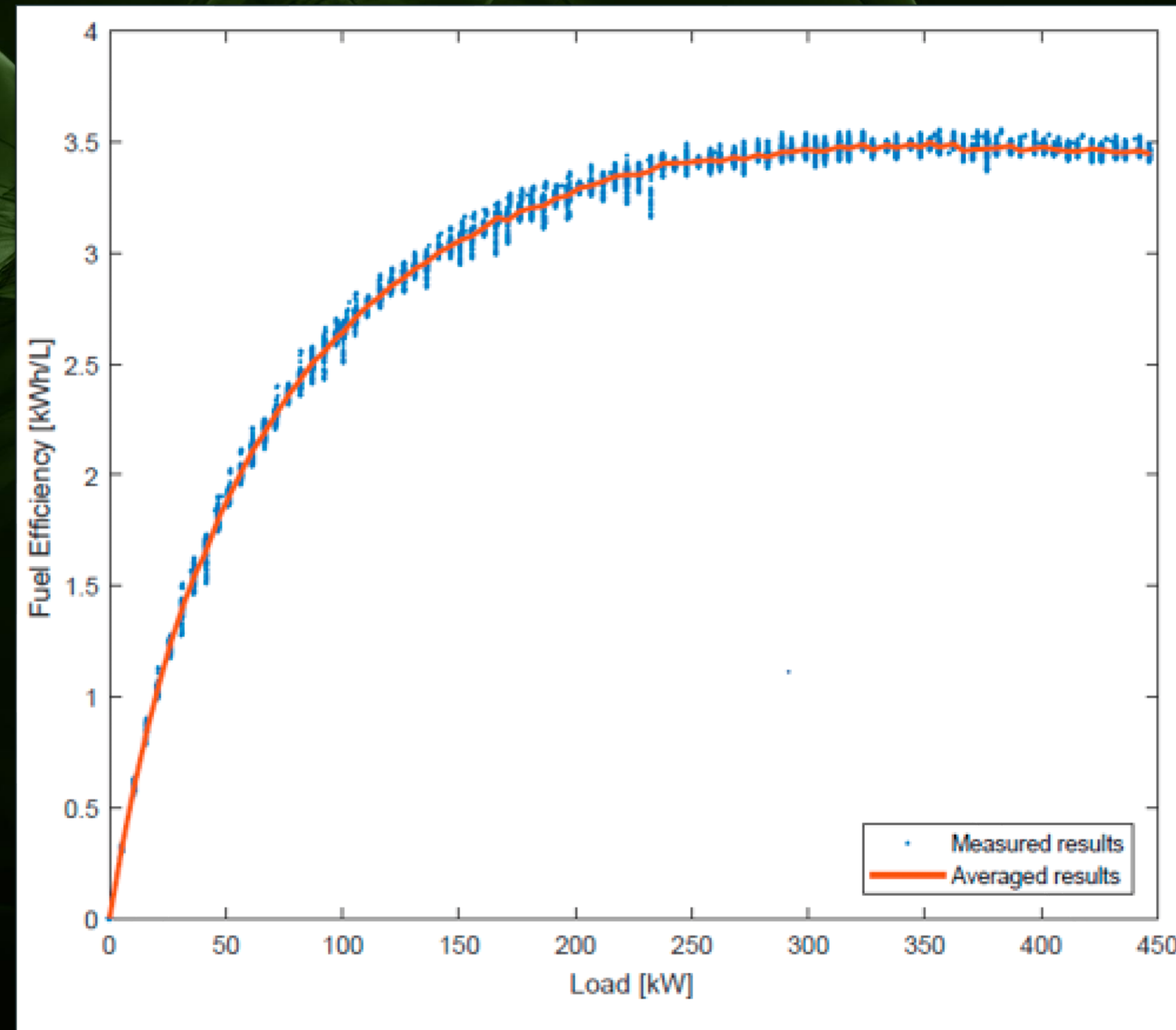
45.60*

90.120*



* Model numbers first two digit number represents KVA output. Second two to three digit number represents battery storage in KWh. For example, a 45.60 has an output of 45KVA and 60KWh of battery storage, a 90.120 has 90KVA output with 120KWh of storage etc

Why BESS with Generators?



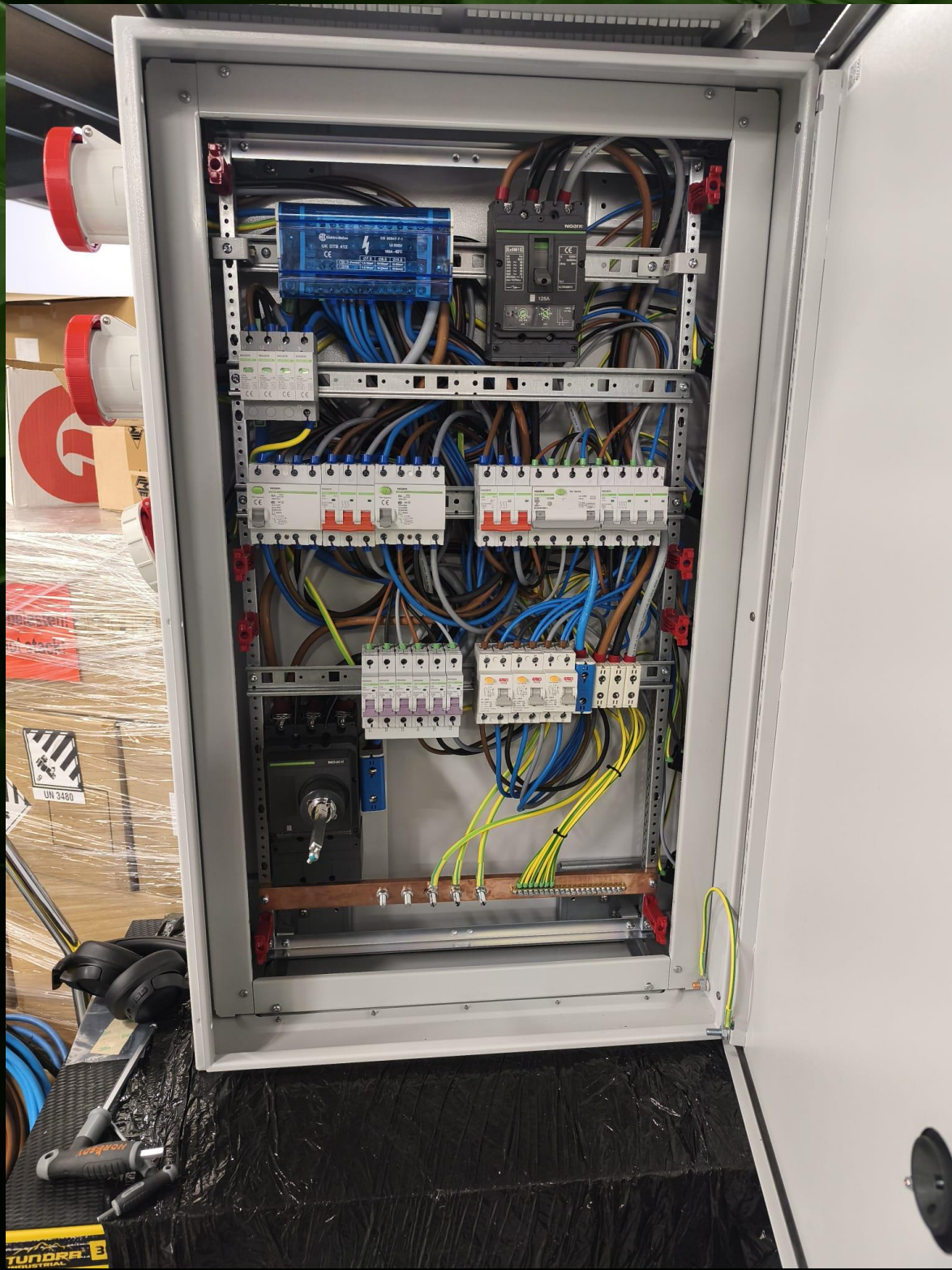
Diesel Generator Fuel Efficiency vs Load ¹

¹ [Significant Increase in Fuel Efficiency of Diesel Generators with Lithium-Ion Batteries Documented by Economic Analysis](#)

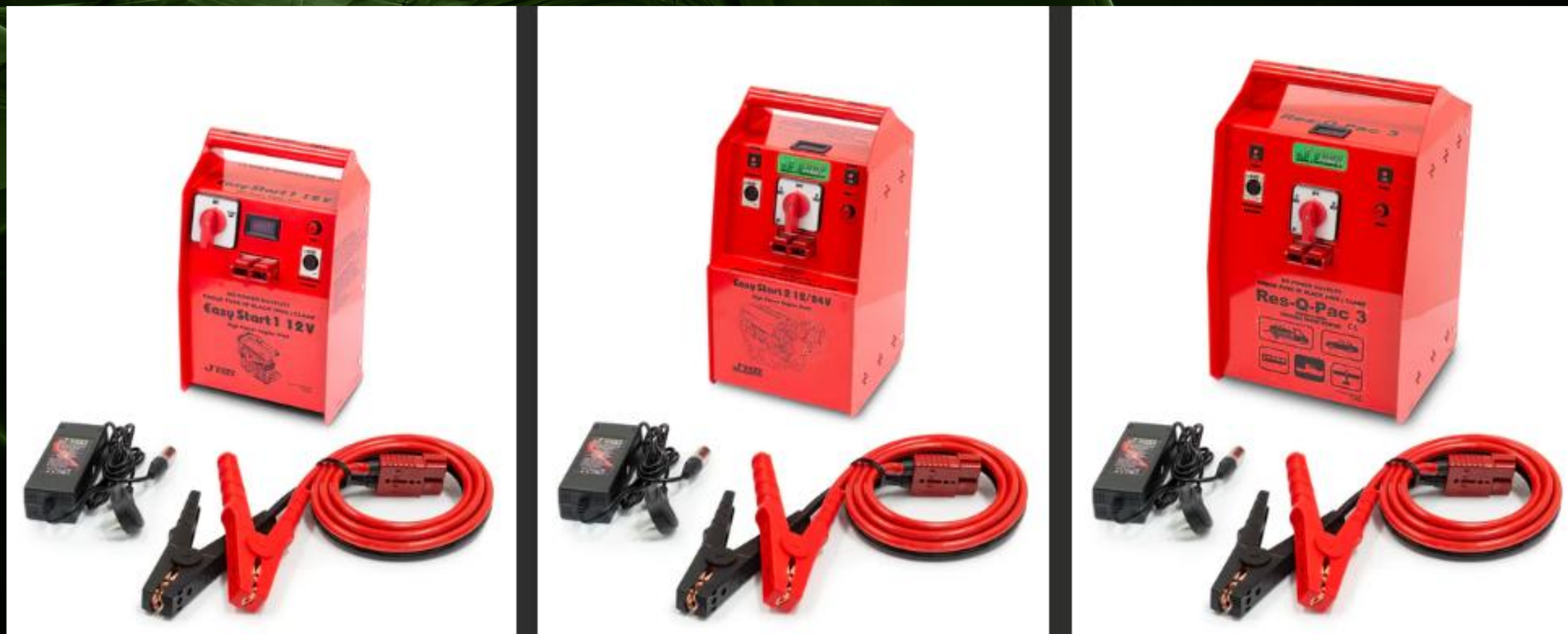
Branding



Distribution Boards



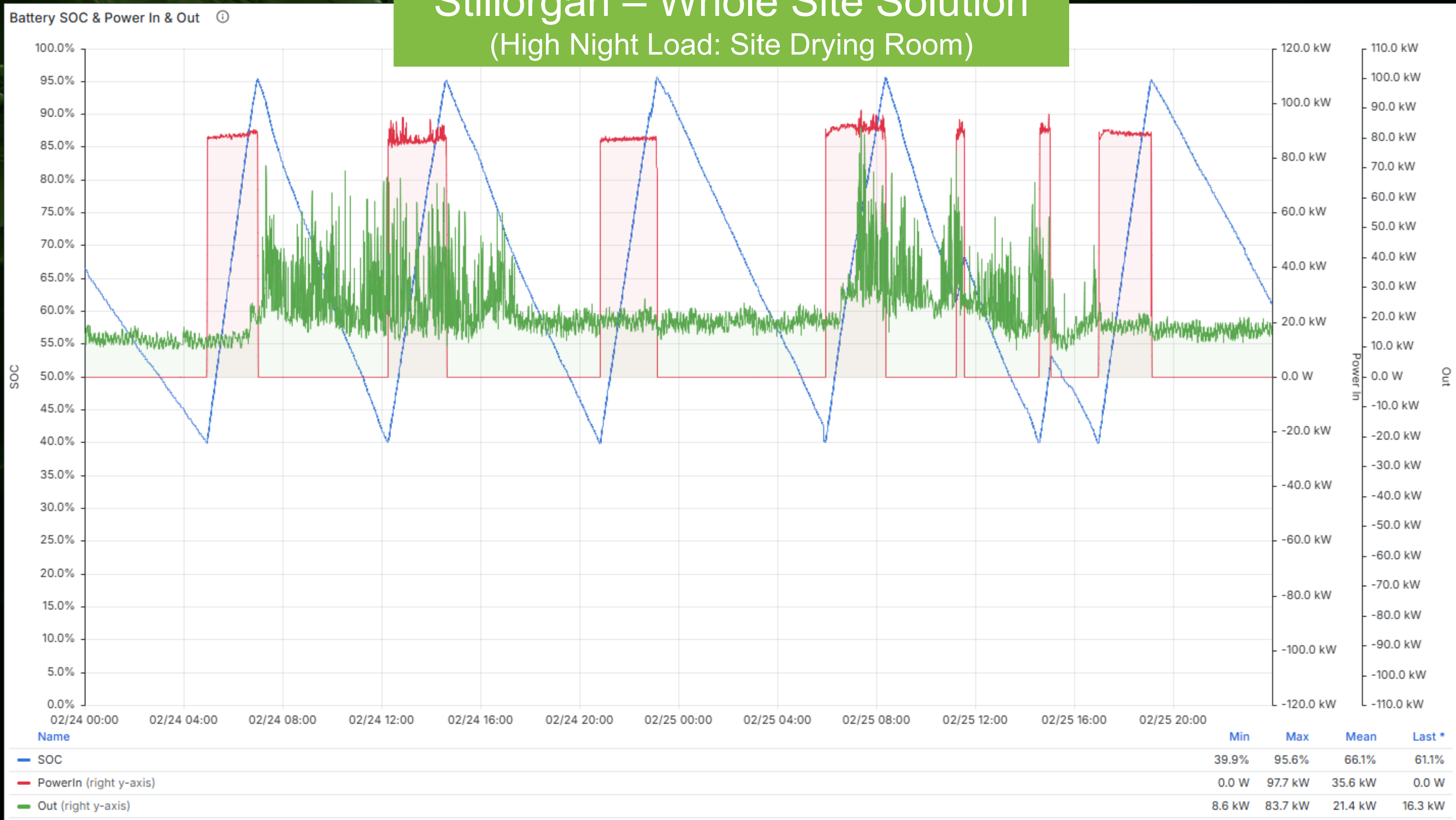
Jumpstarters



Case Study 1



Clancy Construction Stillorgan – Whole Site Solution (High Night Load: Site Drying Room)



Case Study 2



Date	Day	Peak Demand (KW)	Average Demand (KW)	Site consumption (KWh)	Generator Run Time (Hrs:Mins)	Site Demand (Hrs)
19/05/2025	1	48.2KW	2.8KW	61.4KWh	01:41:00	24
20/05/2025	2	44.1KW	2.8KW	62.5KWh	01:02:00	24
21/05/2025	3	47.6KW	2.3KW	46.0KWh	03:49:00	24
22/05/2025	4	40.3KW	2.2KW	50.9KWh	01:43:00	24
23/05/2025	5	46.3KW	1.8KW	47.8KWh	01:51:00	24
24/05/2025	6	43.2KW	1.4KW	34.8KWh	01:06:00	24
25/05/2025	7	42KW	1.0KW	22.8KWh	00:00:00	24
26/05/2025	8	39.5KW	2.4KW	60.4KWh	02:01:00	24
27/05/2025	9	48.8KW	3.5KW	92.6KWh	02:39:00	24
28/05/2025	10	42.1KW	2.6KW	64.3KWh	02:08:00	24
29/05/2025	11	41.7KW	2.5KW	59.2KWh	01:15:00	24
30/05/2025	12	42.4KW	1.9KW	47.2KWh	02:10:00	24
31/05/2025	13	44.1KW	1.6KW	37.0KWh	02:05:00	24
01/06/2025	14	42KW	0.9KW	21.1KWh	00:00:00	24
02/06/2025	15	5.2KW	0.9KW	20.6KWh	00:00:00	24
03/06/2025	16	45.2KW	3.4KW	84.1KWh	02:49:00	24
04/06/2025	17	53.6KW	3.3KW	77.7KWh	01:56:00	24
05/06/2025	18	50.9KW	2.6KW	64.8KWh	02:31:00	24
06/06/2025	19	44.7KW	2.3KW	51.0KWh	00:00:00	24
07/06/2025	20	40.8KW	1.8KW	33.9KWh	02:47:00	24
08/06/2025	21	42KW	0.9KW	20.6KWh	00:00:00	24
09/06/2025	22	41.5KW	1.8KW	47.9KWh	01:49:00	24
10/06/2025	23	46.0KW	1.9KW	41.4KWh	01:59:00	24
11/06/2025	24	52.2KW	2.3KW	51.1KWh	01:42:00	24
12/06/2025	25	46.9KW	3.3KW	71.4KWh	02:01:00	24
13/06/2025	26	44.3KW	2.8KW	61.5KWh	02:07:00	24
14/06/2025	27	6.1KW	1.0KW	22.8KWh	00:45:00	24
15/06/2025	28	3.5KW	1.1KW	58.7KWh	00:00:00	24
16/06/2025	29	32.6KW	2.0KW	76.4KWh	02:13:00	24
17/06/2025	30	46.0KW	2.6KW	51.0KWh	00:00:00	24
18/06/2025	31	46.6KW	3.1KW	52.4KWh	03:46:00	24
Totals	Totals	53.8KW	2.1KW	1,586 KWh	49:58:00	744

Elliott Construction Crane and Small Drying Room

Highlights

- Generator Size: 150KVA
- Average Load: 2.1KW
- Crane Peak Load: 53.6KW
- Site Demand: 24 hours, 744 hours in period
- Generator run time over the month: 50 hours
- Reduction in Generator Operation: 93%



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