Case Study - MX 30/60 LFP

Site Overview and Solution

On a remote large-scale solar project located in the West of Ireland. The client needed power onsite to begin the commissioning phase of the project and to power the newly constructed substation. With no ESB mains connection available, MW Hire were asked to provide a temporary solution to power the site.

Traditionally, a diesel generator would be installed to supply temporary power to the site while waiting for final ESB connection. This generator is usually oversized as the site loads are unknown initially, which means the generator runs less efficiently and burning excess fuel while running 24/7.

MW Hire were able to offer a more sustainable solution to power the site loads using a Pramac MX30/60 BESS System (Battery Energy Storage System), an Inmesol IIR066, Silent Diesel Generator and a 1000Ltr Bunded Fuel Cube.

The site loads are running between 5-8kw, 24hrs p/day, 7 days p/week. Rather than a diesel generator running 24/7 and consuming more than 1000ltrs of fuel each week. The sustainable solution has reduced the generator running hours by 80-85%, CO2 emissions are reduced, the noise from the hum of a diesel engine has been reduced in the area meaning less complaints from residents and the project fuel bill has been significantly reduced with savings of over €8,000 in the month of February and until March 19th, 2026.

The images below show the data captured from the Victron Energy reporting software during the February and March timescale.

Metrics Used

- Fuel Cost €1.00 p/Ltr February
- Fuel Cost €1.30 p/Ltr March
- Average Load 5-8kw
- Generator Fuel Consumption 8Ltr/p/hr

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Key Site Figures – TLI Ballinasloe - February 2026

- Days Onsite - 28
- Hours Onsite – 672
- Traditional Generator Run Time – 672Hrs
- Actual Generator Run Time – 124.57Hrs
- Cost of Fuel for 28 Days on Generator 24/7 - €5,376.00
- Actual Cost of Fuel for 28 Days Using BESS - €999.73
- Fuel Saving for 28 Days €4,376.00
- CO2 Saving for 28 Days 11,553kg
- Reduction in Generator Running – 81%

Key Site Figures – TLI Ballinasloe - 1st - 19th March 2026

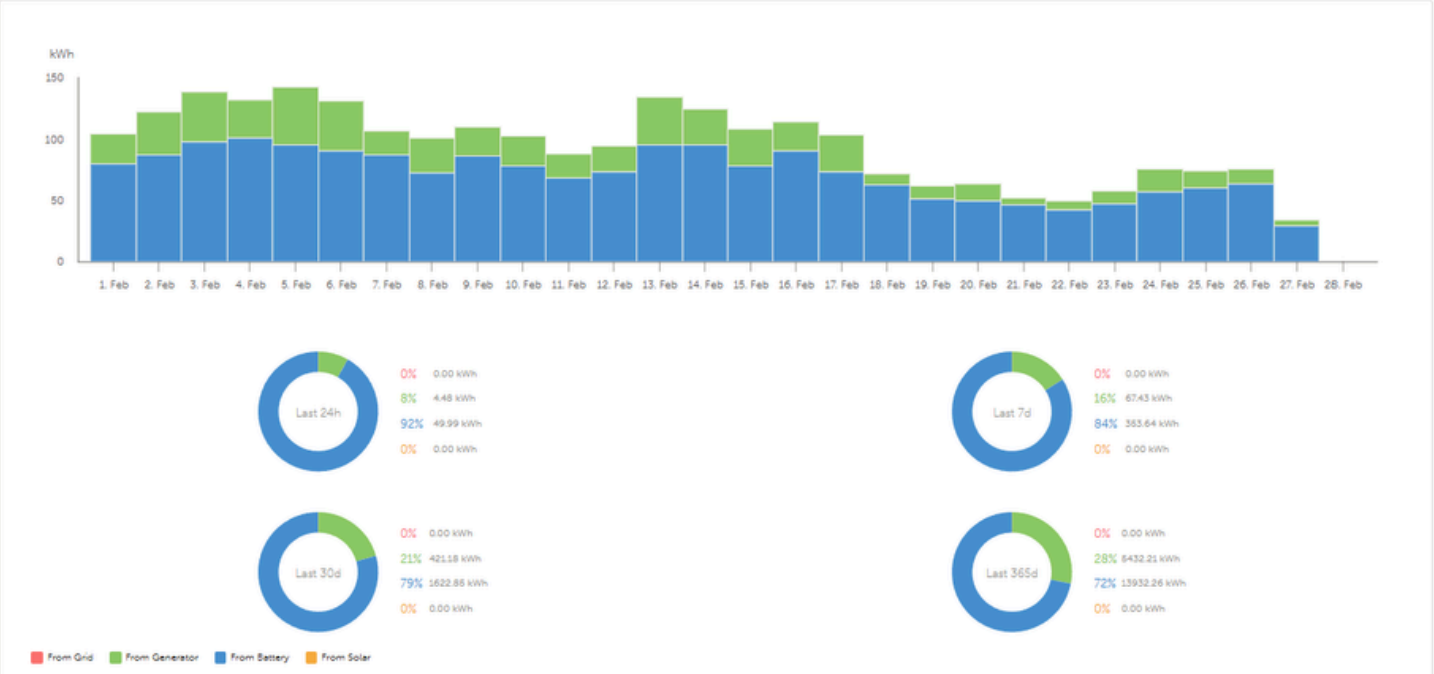
- Days Onsite - 19
- Hours Onsite – 456
- Traditional Generator Run Time – 456Hrs
- Generator Run Time – 68.57Hrs
- Cost of Fuel for 19 Days on Generator 24/7 - €4,742.00
- Actual Cost of Fuel for 19 Days Using BESS - €717.11
- Fuel Saving for 28 Days €4,025.00
- CO2 Saving for 28 Days 8,174kg
- Reduction in Generator Running – 85%

TLI Ballinasloe

Site Data – February 2026

Installation data

Consumption | Previous month



From AC Input	From Generator	From Battery	From Solar	Consumption
- kWh	617 kWh	1960 kWh	- kWh	2577 kWh

Hybrid Genset report HOI0000046 MX 30/60 Ballinasloe TLI

victron energy

2026-02-01 to 2026-02-28

Breakdown of Savings in Engine Hours and Fuel

Reduction in run-hours

81%

Number of days	28
Fuel consumption per hour	8
Cost of Fuel per Litre	€ 1,00
Normal run-hours for this period	672:00
Actual run-hours for this period	124:57
Reduction in run-hours for this period	547:02

Reduction in fuel consumed

81%

	Run-time (hrs)	Cost (€)
Conventional generator	672:00	€ 5.376,00
Hybrid generator	124:57	€ 999,73
Fuel saved		€ 4.376,27

Fuel costs saved
€ 4.376,27

CO_2 savings
11553.35 kg

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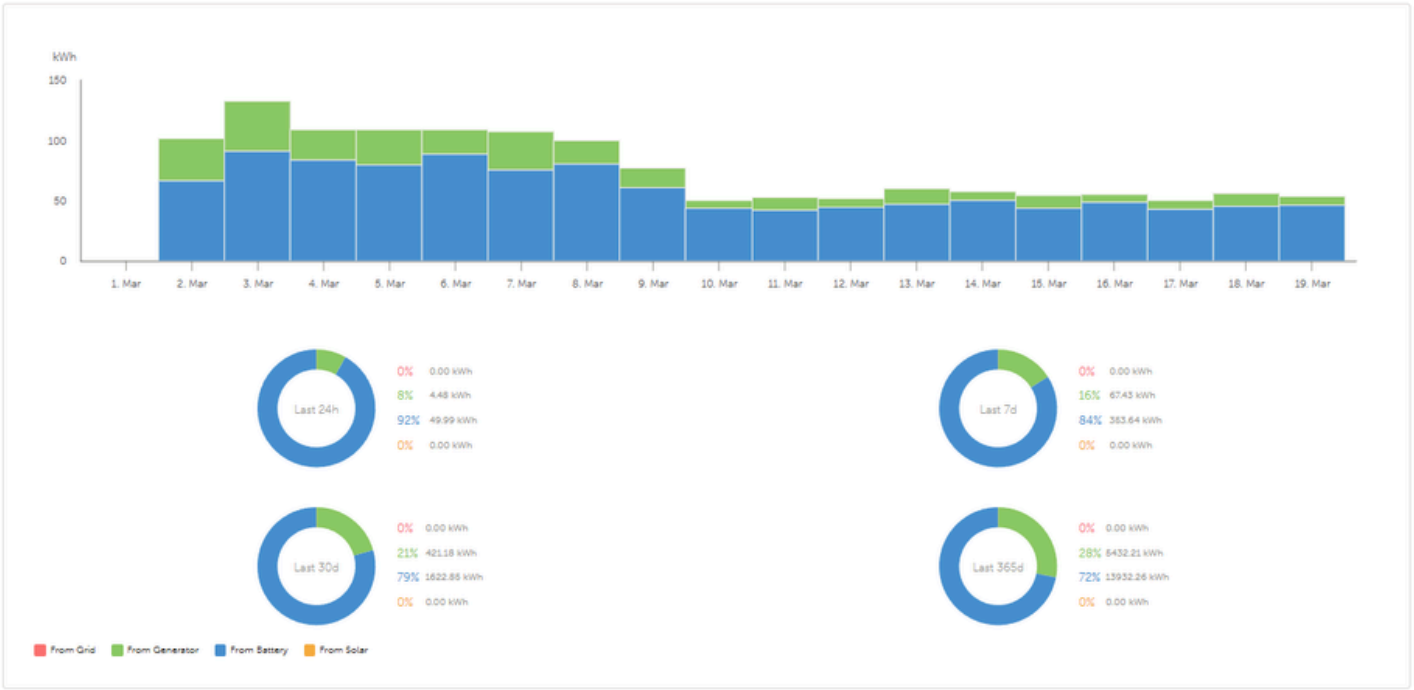
Site Data – 1st – 19th March 2026

Installation data

Consumption | 2026-03-01 00:00 to 2026-03-19 23:59



From AC Input	From Generator	From Battery	From Solar	Consumption
- kWh	308 kWh	1087 kWh	- kWh	1395 kWh

Hybrid Genset report HOI0000046 MX 30/60 Ballinasloe TLI

victron energy

2026-03-01 to 2026-03-19

Breakdown of Savings in Engine Hours and Fuel

Reduction in run-hours

85%

Number of days	19
Fuel consumption per hour	8
Cost of Fuel per Litre	€ 1,30
Normal run-hours for this period	456:00
Actual run-hours for this period	68:57
Reduction in run-hours for this period	387:02

Reduction in fuel consumed

85%

	Run-time (hrs)	Cost (€)
Conventional generator	456:00	€ 4.742,40
Hybrid generator	68:57	€ 717,11
Fuel saved		€ 4.025,29

Fuel costs saved
€ 4.025,29

CO_2 savings
8174,44 kg

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Economic Comparison

	Traditional 24/7 running Price per Week €	BESS Priceper Week €	Case Study Saving €	x365/47 Annualised Saving €
Generator - Inmesol 66KVA	496.00	336.56		
Fuel Tank - Western 1000l	96.00	96.00		
Battery - Pramac MX30/60	-	576.00		
Cable	47.80	47.80		
	639.80	1,056.36	- 416.56	
Sample period - 7 weeks	7.00	7.00		
Total Hire Cost 7 Weeks	4 ,478.60	7,394.52	- 2,915.92	
Fuel - Feb (€1pl)	5 ,376.00	999.73		
Fuel - Mar (€1.30pl) - 19 days	4 ,742.00	717.11		
	10,118.00	1,716.84	8,401.16	
Total Hire & Fuel Cost - 47 days	14,596.60	9,111.36	5,485.24	42,598.14

Environmental Comparison

	Case Study Saving Kg	Annualised Saving Kg
CO2 saving - Feb	11,553Kg	
CO2 saving - Mar - 19 days	8,174Kg	
CO2 saving 47 Days	19,727Kg	153,199

Operational Comparison

	Generator Run Hours	Generator Run Hours	Case Study Saving Hours	Annualised Saving Hours
Generator Run time - Feb	672	125		
Generator Run time - Mar 19 days	456	69		
Generator Run time - 47 Days	1,128	194	934	7,253

Reduced servicing
Reduced down time