



Site Energy Report - Club

Voltage as a Service (VAAS)TM is an energy-saving service solution for regulating and optimising the voltage supplied to electrical equipment to the optimal level for efficient operation. The purpose of VAAS is to reduce energy consumption, lower electricity bills, and decrease carbon emissions by ensuring that electrical devices operate at their most efficient voltage level.

Executive Summary

Objective	Report on grid supply voltage, and effect of Voltage Optimisation
Site Location	Site #2001 New South Wales, Australia
Facility Type	Club (hospitality)
Time Period	An 8 month period, from 3 rd January 2024 through to 27 th August 2024

Methodology

Data Collection	3 phase energy meter
Communication	4G wireless. 1 minute interval messaging
Sample interval	1 minute interval data, 30 minute integration
Data storage	iStar Cloud Repository
Accuracy	Class 1 accuracy

Summary Statistics

Statistic	Period	Total Energy Usage kWh	Total Energy Savings kWh	Savings %
Mean	Half hour	26.60	3.22	10.80%
Median	Half hour	28.76	3.48	
Mode	Half hour	29.36	3.55	
Minimum	Half hour	1.39	0.17	
Maximum	Half hour	57.21	6.93	
Range	Half hour	55.82	6.76	
Standard Deviation	Half hour	10.16	1.23	
Sample Variance	Half hour	103.26	1.51	
Kurtosis	Half hour	(0.96)	(0.96)	
Skewness	Half hour	(0.16)	(0.16)	
# Samples Read	Half hour	11,397	11,397	
Start date	Half hour	3/1/2024	3/1/2024	
End date	Half hour	27/8/2024	27/8/2024	
Days	Half hour	237.81	237.81	
Total (Period)	Half hour	303,138	36,703	
Total (Annualised)	Half hour	465,263	56,332	
Maximum Demand (kW)	Hour	114		

VAASCO GROUP

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Figure 1 Energy Usage – Daily Total - 6 month period

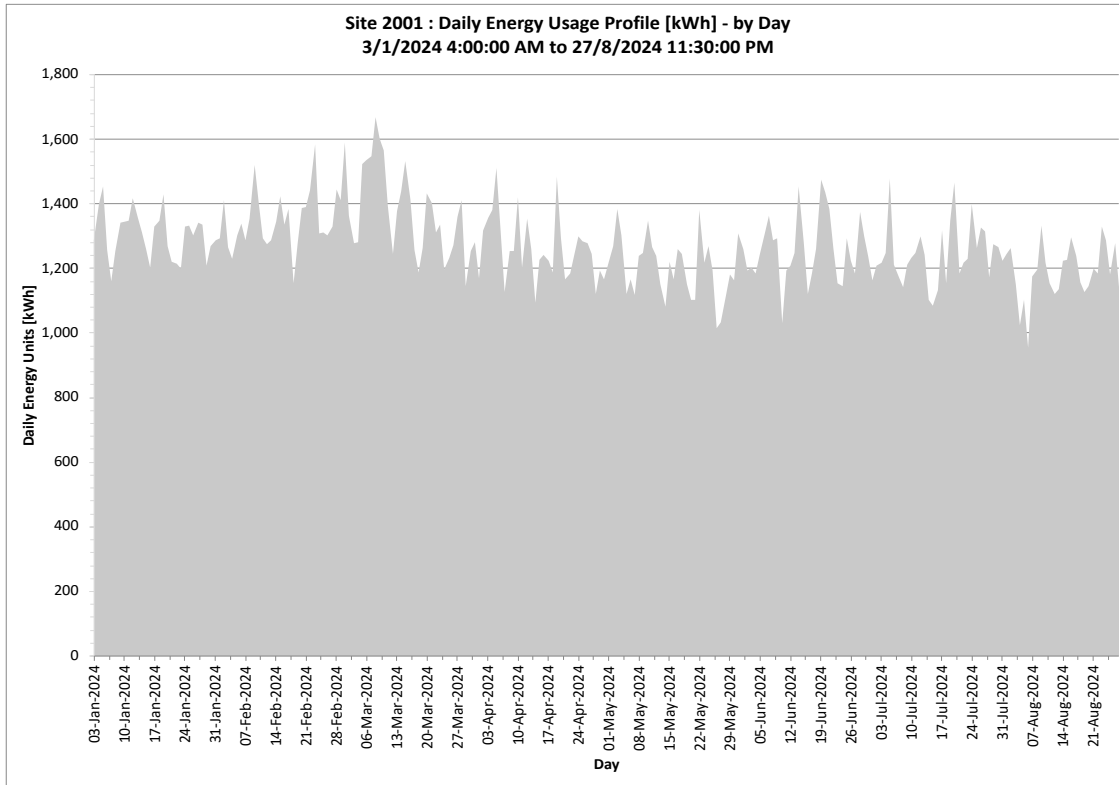


Figure 2 Energy Usage – 30 minute interval - 6 month period

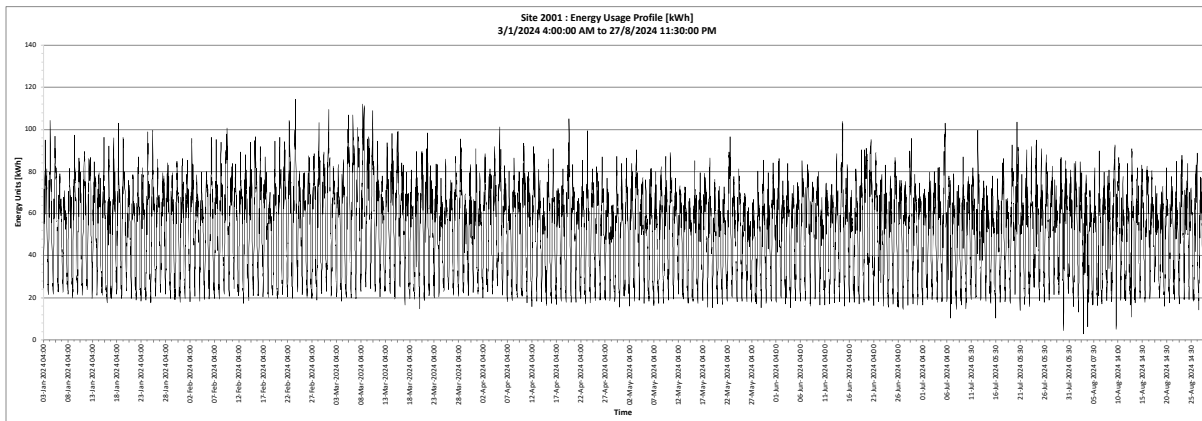


Figure 3 Energy Usage & VO Savings – Average Time of Day – 30 minute interval - 6 month period

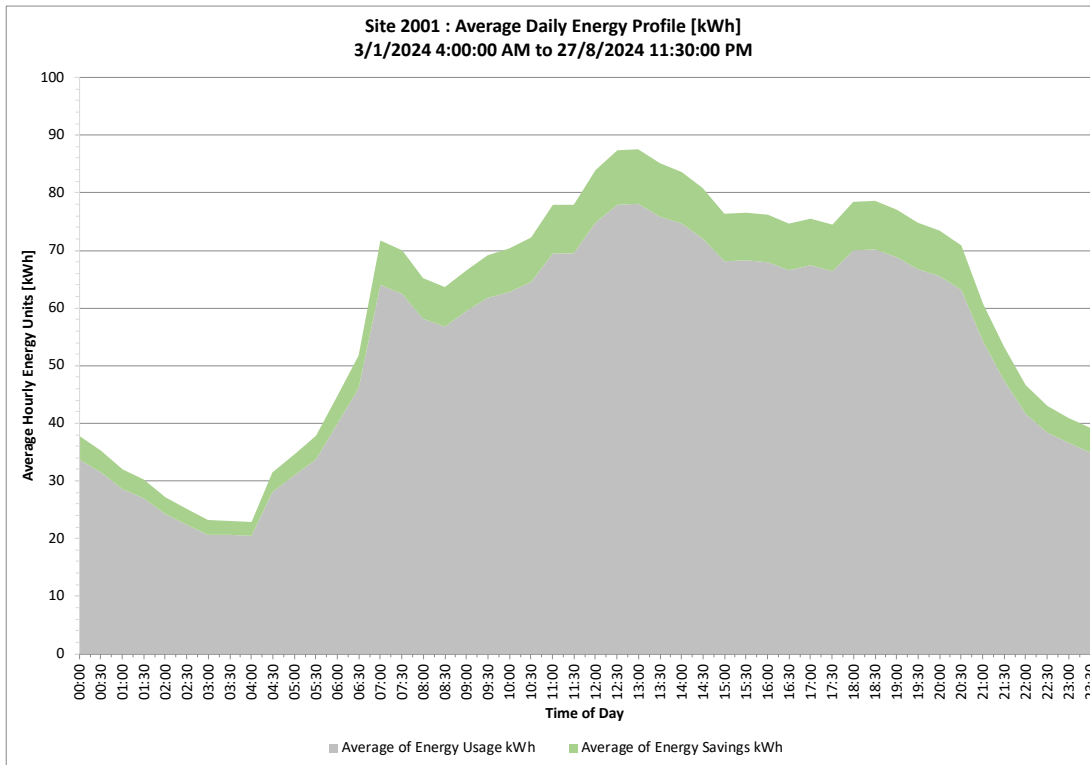


Figure 4 Energy Usage – By Average Time of Day – By Week – 30 minute interval - 6 month period

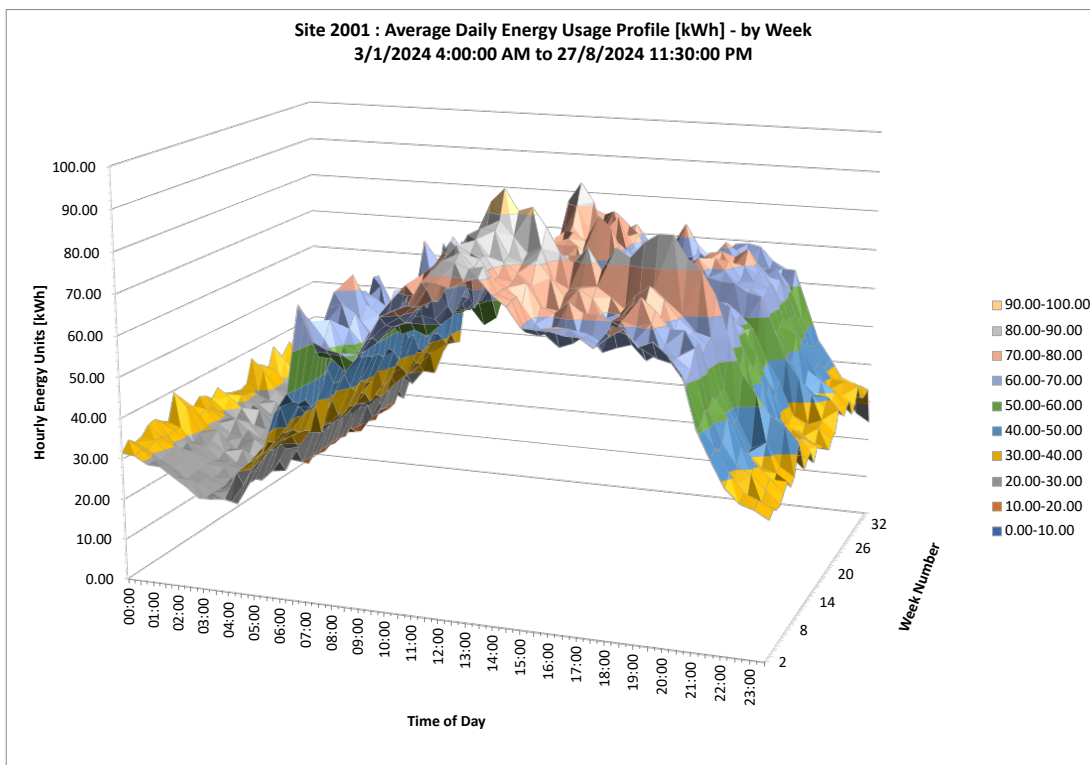


Figure 5 Energy Usage – By Time of Day – By Day – 30 minute interval - 6 month period

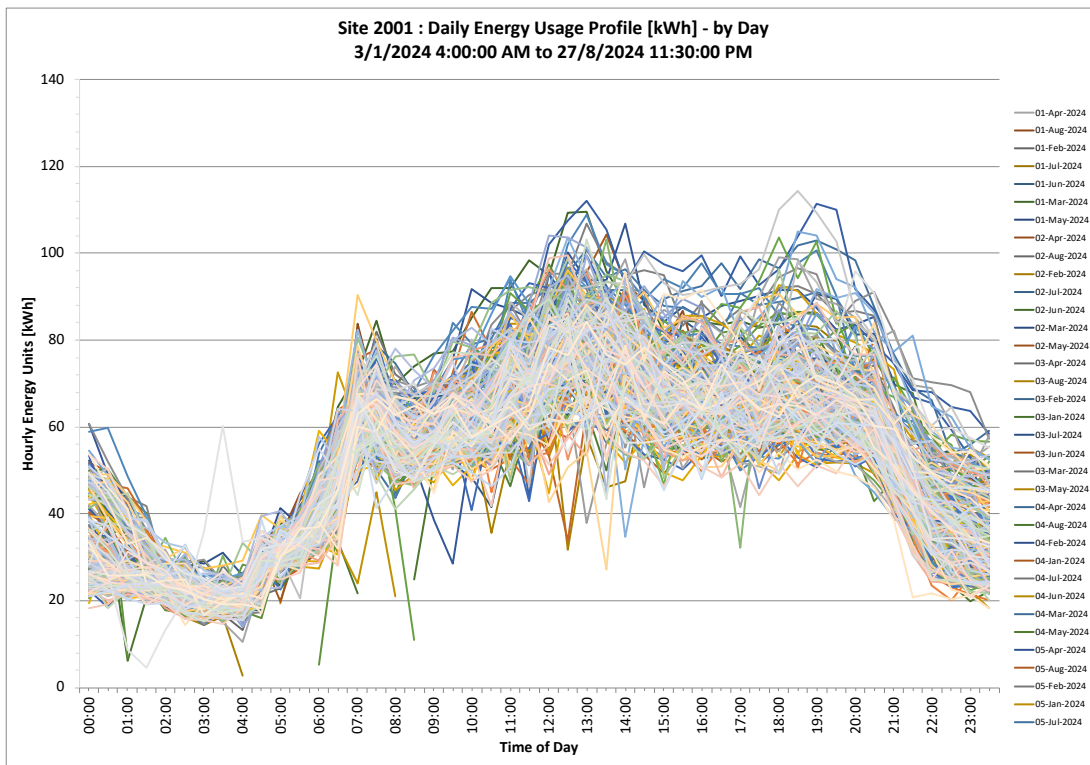


Figure 6 Energy Usage – By Time of Day – By Day of Week – 30 minute interval - 6 month period

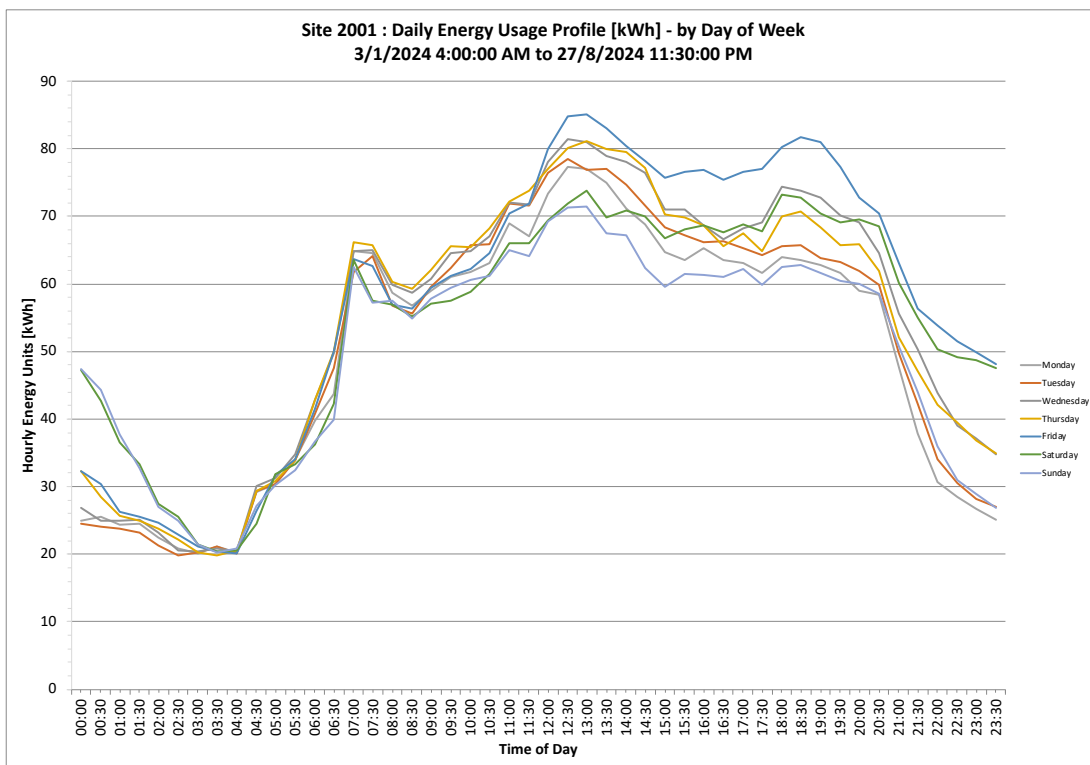


Figure 7 Energy Usage – By Time of Day – By Week – 30 minute interval - 6 month period

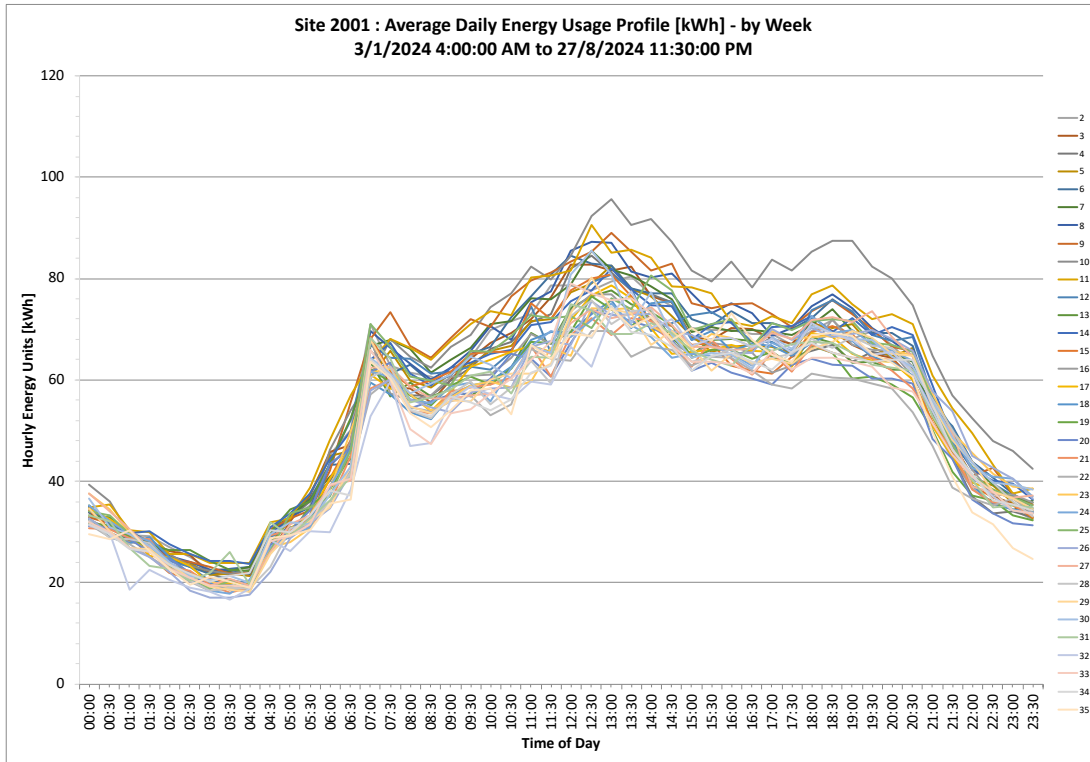


Figure 8 Energy Usage – By Time of Day – By Month – 30 minute interval - 6 month period

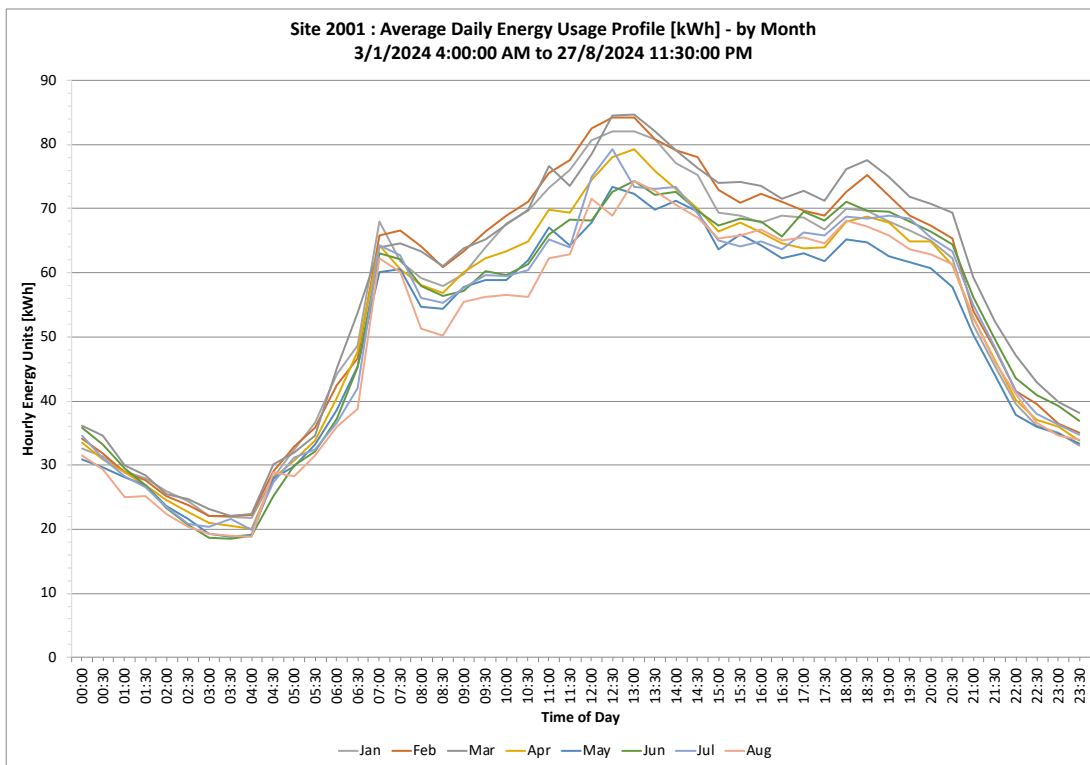




Figure 9 Energy Usage – Totals - By Day of Week - 6 month period

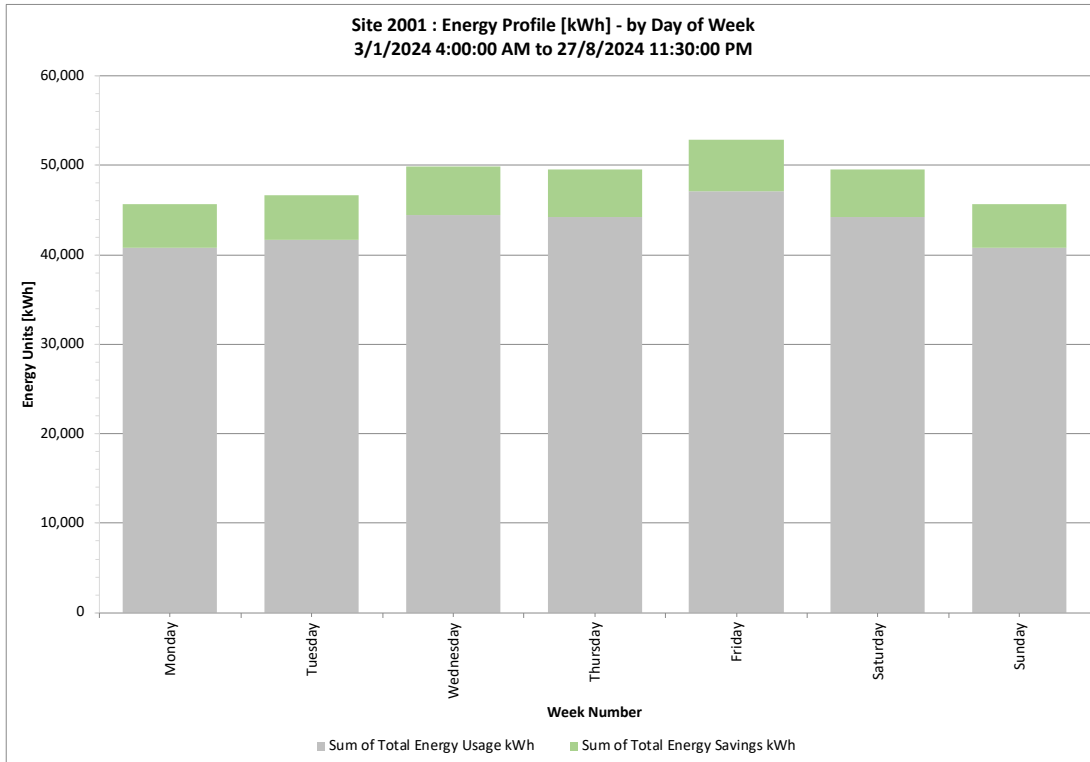


Figure 10 Energy Usage – Daily Average - By Month - 6 month period

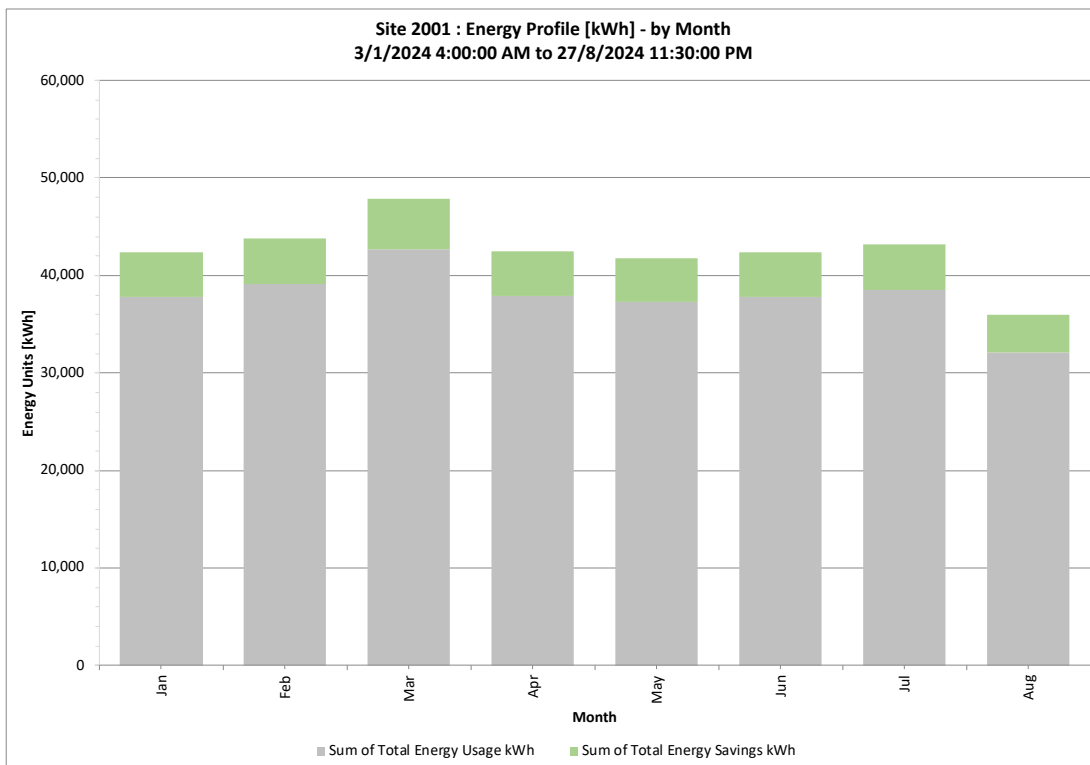
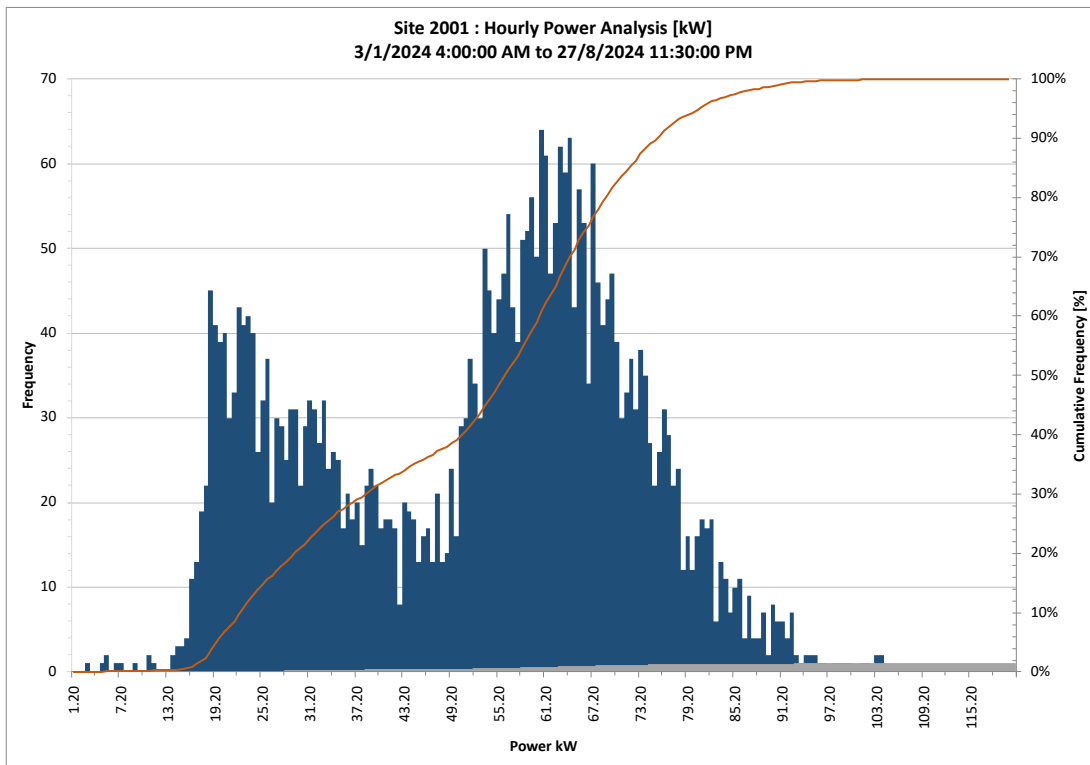


Figure 11 Energy Usage – Histogram - 30 minute interval - 6 month period



Conclusion

Voltage Optimisation offers both immediate and long-term financial benefits while aligning with broader strategic goals related to sustainability, operational efficiency, and risk management. These benefits make VO an attractive proposition for businesses looking to reduce energy costs, enhance their environmental credentials, and improve their overall competitiveness.

VAAS can provide a very useful contribution to a company’s plans to meet its Carbon emission targets, as well as reporting requirements. VAAS provides the right voltage to electrical equipment, ensuring efficiency, cost savings, environmental benefits and performance reporting while maintaining equipment performance and longevity.

For further information, contact us at sales@vaasco.net

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