

# CASE STUDY — Healthcare Provider (AUS)

Patented FilterPro | Weather-Adjusted Energy Optimisation | 12.4% energy reduction achieved | AUD \$238.83 saved during trial | 14.4-month payback (actual performance)

## INTRODUCTION

A healthcare facility sought to reduce energy consumption while maintaining strict operational stability across critical systems.

Given the site's sensitivity to environmental conditions - particularly solar generation and weather variability - a standard before/after comparison would not provide accurate results.

To ensure a fair and credible assessment, enPact FilterPro was deployed alongside weather-adjusted regression modelling, isolating true system-driven savings from external factors such as cloud cover.

### SOLUTION

- Deployment of our patented FilterPro optimisation technology
- Implementation of weather-adjusted regression analysis (using IPMVP option C)
- Exclusion of non-representative days (holidays, data anomalies)
- Comparison of baseline vs optimised performance under equivalent conditions

This ensured the reported savings reflect true operational efficiency gains, not environmental bias.

### CHALLENGE

- High variability in solar generation due to cloud cover
- Risk of misleading savings without weather normalisation
- Presence of non-standard operating days (holidays, data gaps)
- Requirement for accurate, defensible results suitable for scale decisions

## RESULTS

### Core Performance:

- **12.4% actual energy reduction**
- **11.8% weather-adjusted (regression) saving**
- **487 kWh total energy saved**
- **34.8 kWh average daily saving**
- **AUD \$238.83 cost savings during trial**

### Validated Methodology:

- **Baseline average: 281.4 kWh/day**
- **Optimised average: 246.6 kWh/day**
- **Savings confirmed across like-for-like weather conditions**
- **Regression model validates true system-driven efficiency gain**

### Key Takeaway:

Despite being a **low-energy site, the trial demonstrates:**

- **Double the expected performance vs quoted savings**
- **Consistent, measurable efficiency improvements**
- **A robust, defensible methodology for validating savings**

Metric	Quoted	Actual
Savings (%)	7.00%	11.80%
Annual kWh Savings	7,252 kWh	12,087 kWh
Annual Cost Savings	AUD \$3,553	AUD \$5,922
Payback	24.1 months	14.4 months

### HOW THE SAVINGS WERE VERIFIED

- Each data point represents a **working day comparison**
- Cloud cover used as a **key normalisation variable**
- Two trendlines (**OFF vs ON**) show:
  - **Consistent reduction in consumption at all cloud levels**
- **Excluded days:**
  - **Public holidays (non-standard operation)**
  - **Data anomalies (meter dropouts)**

### CONCLUSION

This project highlights the importance of accurate measurement in energy optimisation.

By combining FilterPro technology with weather-adjusted analysis, the client achieved:

- Reliable, defensible savings
- Improved operational efficiency
- A clear pathway for scalable deployment

### SCALABILITY INSIGHT (STADIUM & HOSPITALITY APPLICATIONS)

When scaled across a multi-site healthcare portfolio:

- 12% average energy reduction achievable
- Significant uplift in solar utilisation efficiency
- Strong potential for:
  - Accelerated payback across larger estates
  - Compounding savings at higher-consumption sites

## INTERESTED IN ACHIEVING SIMILAR SAVINGS ACROSS YOUR ESTATE?

Get in touch to discuss validated energy-reduction opportunities and multi-site rollout potential.

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