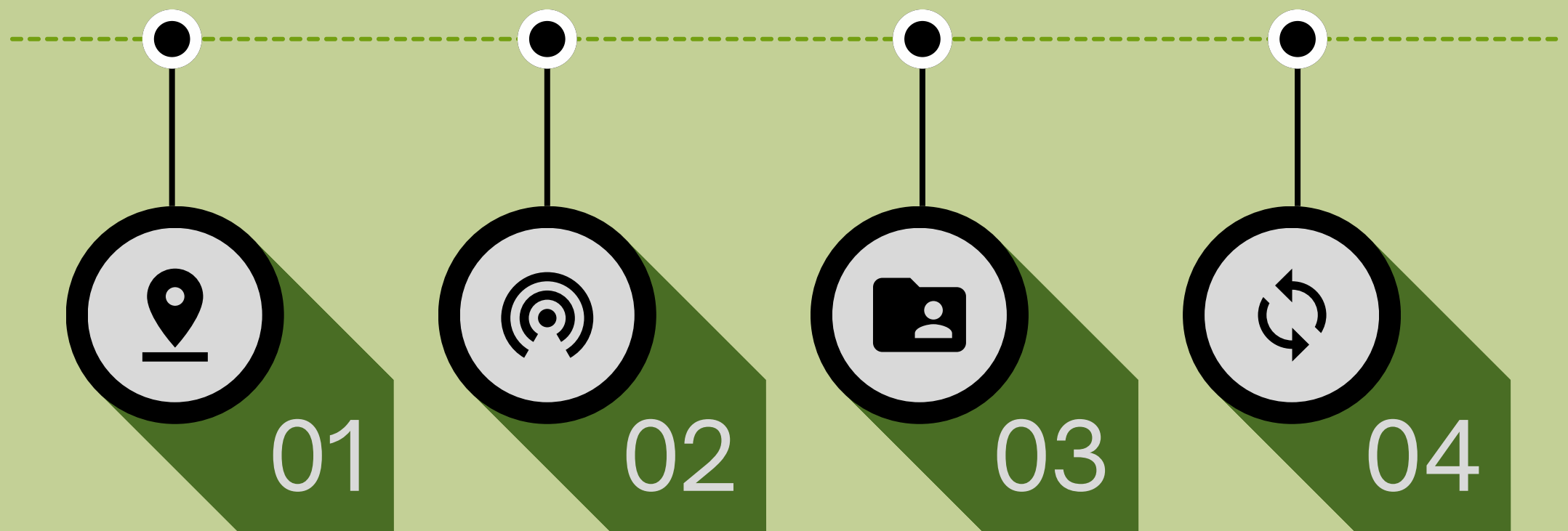


POC Case Study - Oct 2025

25 Peacock Ct, Hertfordshire.
Hightown Housing Association
16 May 2025 to 14 Oct 2025



Attend Site

Participate in installation training and resident engagement.

Connect stakeholders and residents

Analysis of the data to inform and drive better decisions.

Offer Value to Others

Share knowledge and resources that benefit our clients and their residents.

Maintain Regular Contact

Check in periodically with connections to strengthen relationships



B R E A T H E
P U R E

Who are Hightown ?

Hightown Housing Association is a charitable housing provider operating across Hertfordshire, Bedfordshire, Buckinghamshire, and Berkshire. With a portfolio of over 9,300 homes, Hightown is committed to delivering affordable housing and supported living services for people in need. Their mission is to build homes, support independence, and improve wellbeing. Hightown is one of the fastest-growing housing associations in the UK, delivering hundreds of new homes annually while maintaining a strong social purpose



B R E A T H E
P U R E

Summary

This case study evaluates the performance of the IW25-5 On Wall Dehumidifier installed at 25 Peacock Court, Hemel Hempstead, a two-bedroom ground floor flat owned by Hightown Housing Association. The intervention was prompted by consistently high humidity levels recorded by Aico IoT sensors. The study demonstrates a significant reduction in relative humidity following the installation on 18 July, supporting improved indoor air quality and compliance with Awaab's Law.

Introduction

The property had persistent high humidity levels despite having two working Part F fans and regular window ventilation. Due to security concerns, windows could not be kept open consistently. Clothes were dried indoors on an airer in the kitchen, contributing to moisture levels. Aico IoT sensors provided continuous humidity data, which was shared with Breathe Pure for analysis.

Problem Statement

High humidity levels posed a risk of mould growth and structural damage. There was concern that the damp proof course had been compromised by retrospective riser installations. Despite existing ventilation measures, the property continued to experience excessive moisture.



B R E A T H E
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Building Characteristics

According to the EPC (Certificate No. 0149-3857-7268-9526-9961), the property is a ground floor flat with cavity wall insulation, double glazing, and electric heating. The EPC rating is C76, indicating moderate energy efficiency. These features influence the building's ability to manage internal humidity.

Human Interaction and Environmental Factors

The resident dries clothes indoors, and due to safety concerns, windows are not kept open consistently. These behaviours contribute to elevated humidity levels. The kitchen fan operates continuously, while the bathroom fan runs on a timer.

Proposed Solutions

To address the humidity issue, Breathe Pure recommended installing the IW25-5 On Wall Dehumidifier. This device operates independently and maintains humidity within safe levels without requiring tenant interaction.

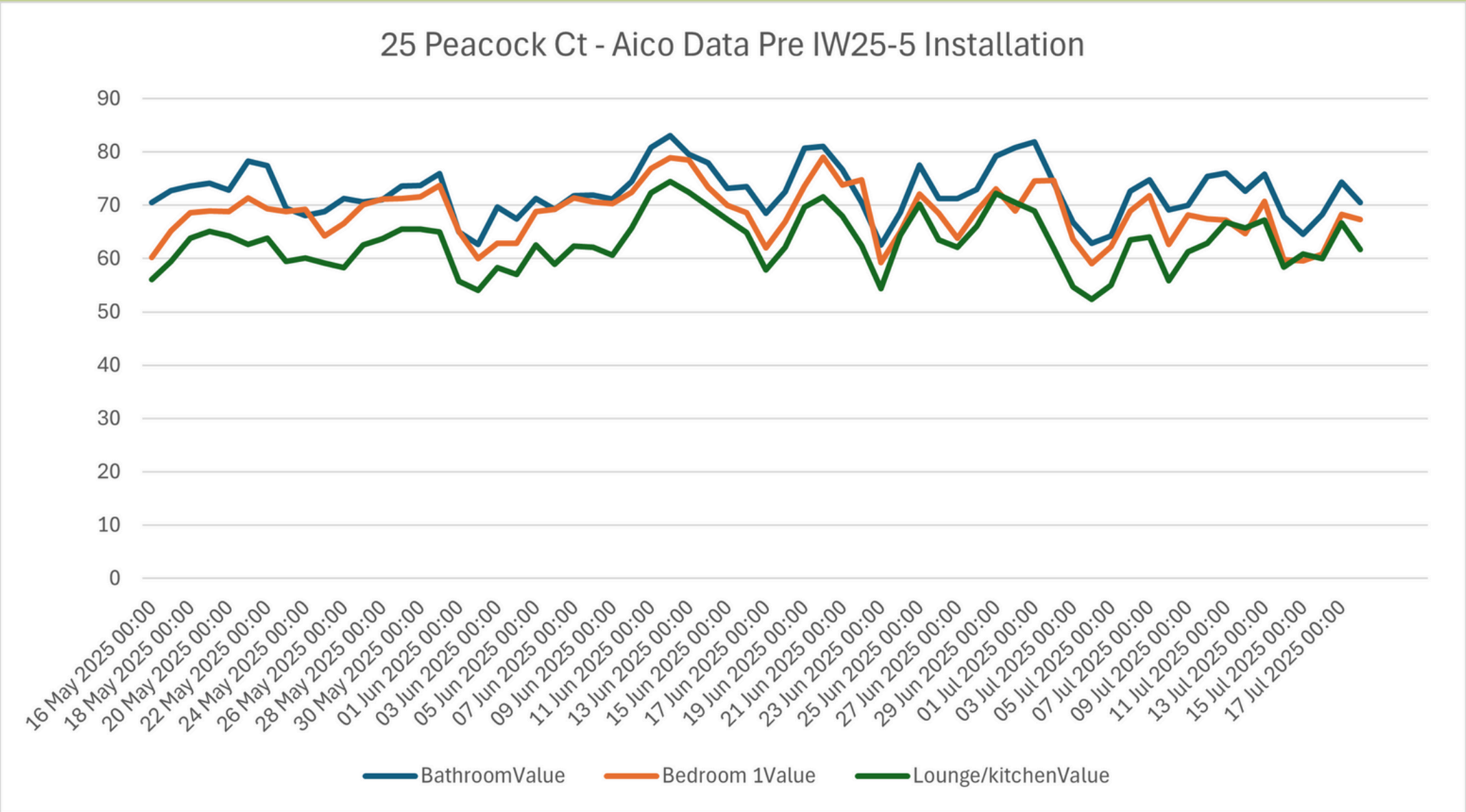


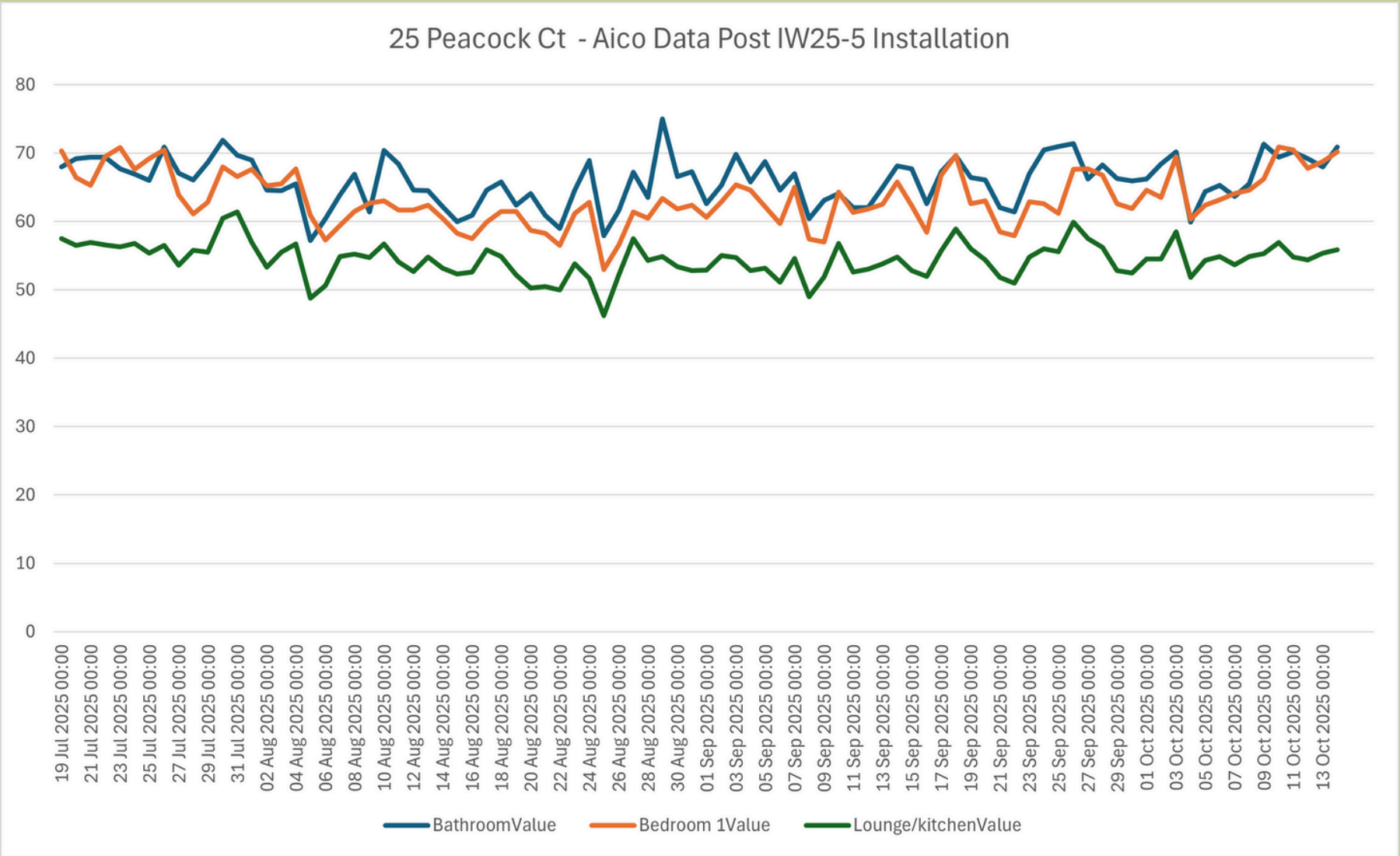
Implementation and Measurement

The IW25-5 was installed on 18 July. Aico IoT sensors continued to monitor humidity levels post-installation. Data analysis shows a clear downward trend in relative humidity, indicating the effectiveness of the intervention.

Findings

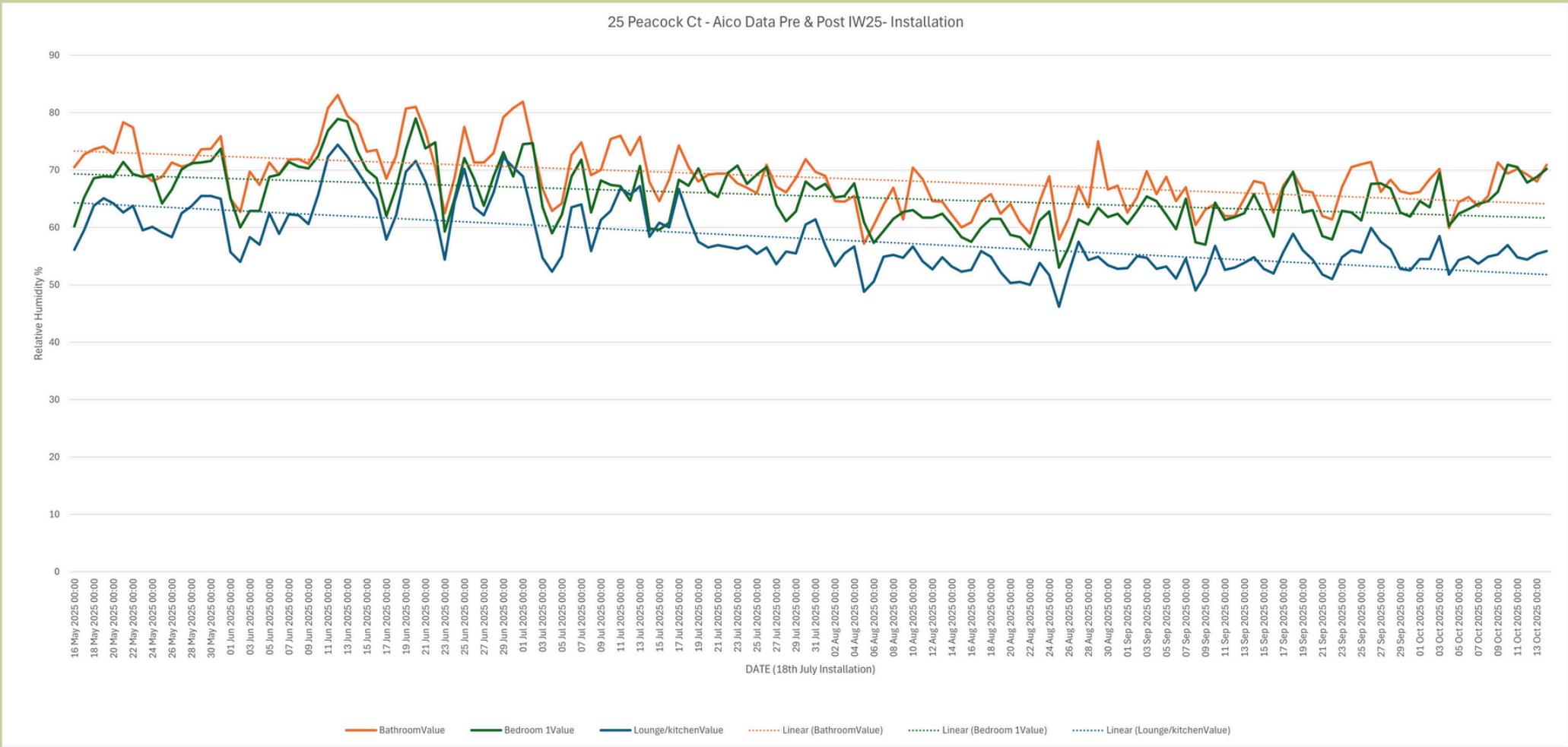
The chart below illustrates the relative humidity trend before and after the installation of the IW25-5 dehumidifier. A significant decline is observed post-installation, confirming the device’s effectiveness.





Key Observations:

- Bathroom: Humidity dropped from an average of 72.5% pre-install to 65.97% post-install. The reduction is consistent and sustained.
- Bedroom 1: Average RH decreased from 68.4% to 63.3%, with fewer spikes above 70%.
- Lounge/Kitchen: Saw the most significant improvement, dropping from 63.1% to 54.4%, with values consistently below 60%.

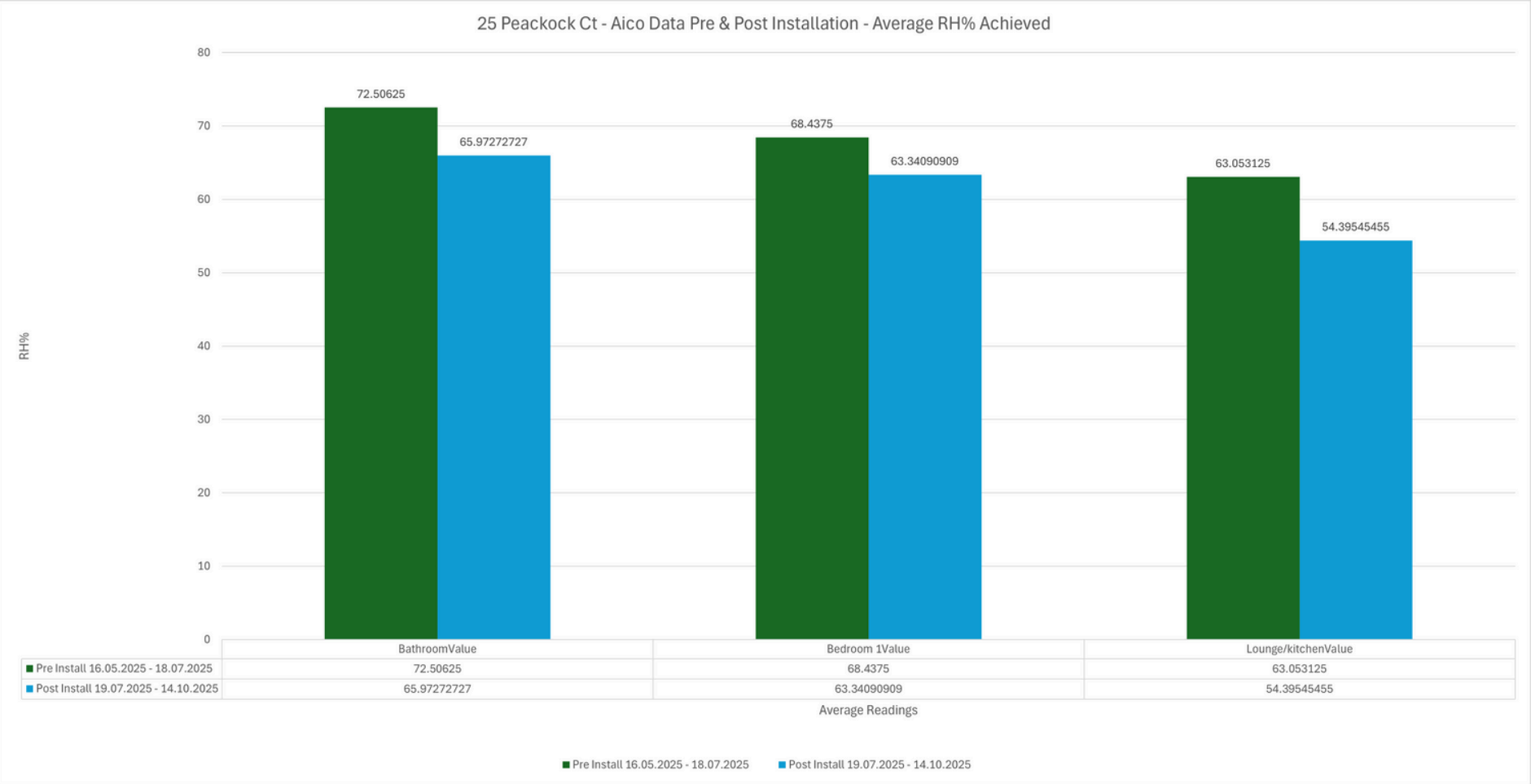


The data clearly shows that the IW25-5 dehumidifier has:

- Reduced average humidity in all rooms.
- Minimized peaks that previously exceeded safe thresholds.
- Stabilised indoor conditions, especially in the lounge/kitchen area.



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The data demonstrates that the IW25-5 installation at Peacock Court significantly reduced humidity levels, especially in the most vulnerable areas. This supports its use as a proactive intervention for damp and mould prevention, aligning with Awaab’s Law compliance and improving tenant wellbeing.







Humidity Happens,
Mould Doesn't Have To



B R E A T H E
P U R E