WARRANTY PERIOD PERFORMANCE

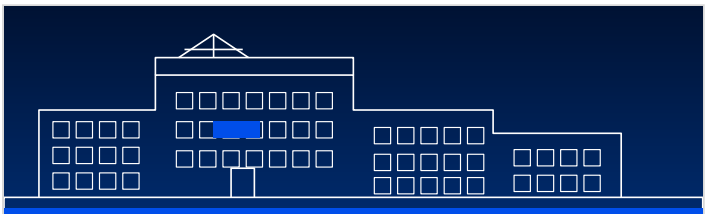
CASE STUDY: APPLYING FAULT DETECTION AND DIAGNOSTICS (FDD) DURING WARRANTY PERIOD

When a new healthcare facility is commissioned, the warranty period is the single best opportunity to lock in long-term performance. In this case study, we'll compare two healthcare projects in Canada with the same timeframe and warranty obligations. The facility that deployed FDD during turnover finished three months ahead of plan. The other faced contractual penalties.

THE CHALLENGE

More than 80% of HVAC equipment fails for non-age-related reasons—typically commissioning defects, installation issues, or controls problems that compound during warranty. By the time anyone notices, the warranty window has closed and the cost shifts to the building owner.

For healthcare facilities, the stakes are higher. Temperature, humidity, and pressurization directly affect patient safety, infection control, and accreditation. On performance-guaranteed MBCx projects, missing targets for the warranty-period can result in real money lost to penalties and an asset that enters operations already behind.



BUILDING 1 — WITH FDD

FACILITY TYPE
Rehabilitation Centre

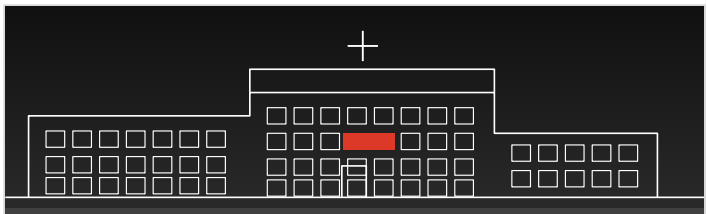
LOCATION
Toronto, Ontario

SECTOR
Healthcare

Beat guaranteed performance goal by

+15%

in first three months of operation.



BUILDING 2 — NO FDD

FACILITY TYPE
Community Outpatient Centre

LOCATION
Halifax, Nova Scotia

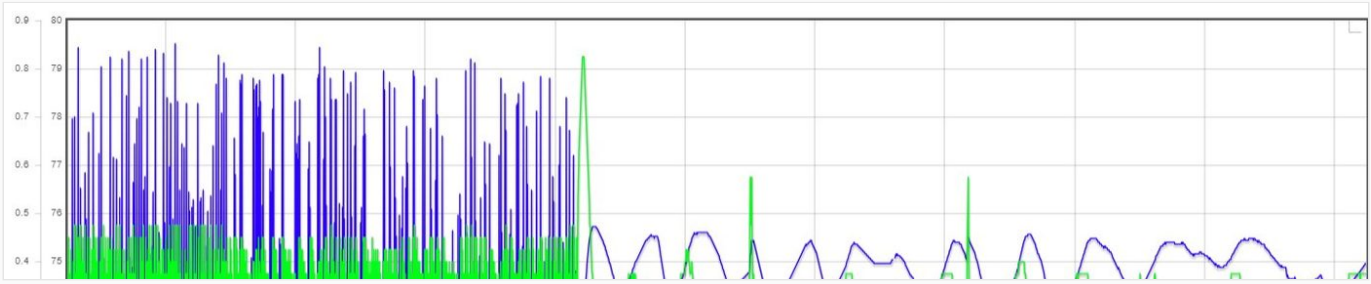
SECTOR
Healthcare

Missed guaranteed performance goal by

−44%

Availability & energy guarantee penalties applied.

PERFORMANCE TREND — BEFORE AND AFTER FDD-DRIVEN ACTION



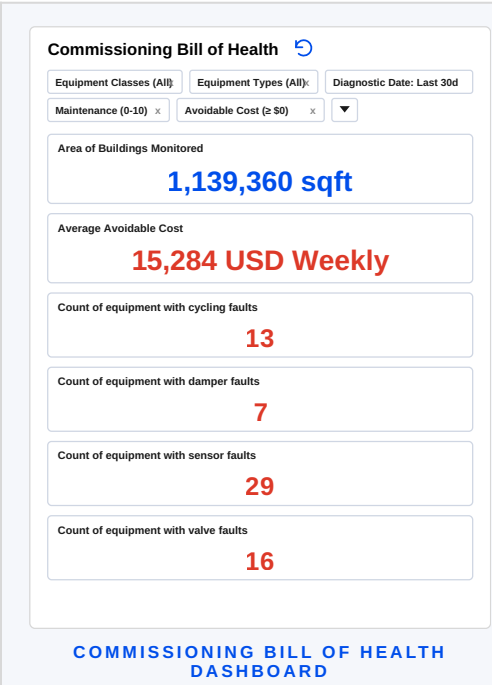
Live BMS trend from a Clockworks-monitored facility. Before: room temperature (green) and cooling valve position (blue) are erratic and over-cycling. After FDD-driven corrective action, both stabilize within tight bands.

WARRANTY PERIOD PERFORMANCE

CASE STUDY: APPLYING FAULT DETECTION AND DIAGNOSTICS (FDD) DURING WARRANTY PERIOD

Clockworks Analytics continuously scans HVAC data at the equipment level, prioritizes faults by cost, comfort, and maintenance impact, and routes them to the people who can act. During the warranty window, that means project teams enter operations with a documented "clean bill of health"— verified against the same criteria for every building.

COMMISSIONING CLEAN BILL OF HEALTH CRITERIA



COMMISSIONING BILL OF HEALTH DASHBOARD

Little Energy Waste

Weekly identified savings under 1% of monthly energy cost.

Sum of Priority Codes

A sum of weekly diagnostic priority codes of not more than:

- 2 per 10,000 sq.ft. in any Energy
- 15 per 10,000 sq.ft. in Comfort
- 25 per 10,000 sq.ft. in Maintenance

Zero Prohibited Faults

Prohibited faults include leaking valves, stuck valves or dampers; cycling fans, pumps, chillers, or boilers; and sensor errors—flat, out-of-range, or jumping sensors.

THE RESULTS

MORE ENERGY SAVINGS

Inefficiencies caught and corrected before they became baseline behavior.

IMPROVED FIRST-TIME-FIX-RATE

Contractors arrived with diagnostic context, not guesswork.

REDUCED LABOR SPEND

Less time troubleshooting; more time resolving prioritized issues.

REDUCED FINGER-POINTING

Objective, third-party evidence kept the conversation on solutions.

BETTER ASSET HEALTH AT TURNOVER

The building entered operations performing the way it was designed to perform.

PERFORMANCE GUARANTEE MET

Targets beaten by 15% in the first three months — no penalties triggered.