

DAIKIN

ENERGY & COST SAVINGS

ENSURING YOUR LONG-TERM PEACE OF MIND.

VALUE ADDED SERVICES

RETRO-COMMISSIONING

Improve the performance of your HVAC systems

ABOUT DAIKIN APPLIED ASIA & OCEANIA

Engineered for Performance and Flexibility

- Daikin Group is global leaders in the Air Conditioning sector.
- 96,000 employees globally.
- Over 100 Production manufacturing sites across the world.
- Providing technological solutions in more than 170 countries in the world.
- Daikin Applied Asia & Oceania is a subsidiaries under Daikin Industries Ltd Group ("Daikin") of companies.



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Retro-Commissioning Process

Planning

1

- Terminal data collection & interview of building operators
- Facility walk - through
- Present current case and level of audit required

Investigation

2

- Kick-off meeting
- In-depth building investigation
- Prepare report & recommendations

Recommendations

3

- Review findings and select measures for implementation
- Recommendations of costs
- Owner to review and approve proposals

Implementation

4

- Implement operational/equipment improvements
- Training of operators
- Owner to continue operations

Verification

5

- Post-implementation measurements & verifications
- Continuous analysis for further improvements

SIGNIFICANT SAVINGS AT MINIMAL COST

Retro-commissioning (RCx) is a systematic process for identifying less-than-optimal performance in your facility's Heating, Ventilation, and Air Conditioning (HVAC) systems and making the necessary adjustments. It can often resolve problems that occurred during design or construction, or address problems that have developed throughout the building's life as equipment has aged, or as building usage has changed.

Diagram 1 illustrates the deterioration of the chiller plant due to normal wear and tear over time. Retro-commissioning is therefore important to extend the service life of your chiller.



WHY IS IT IMPORTANT

Over time, equipment ages and building use changes. In addition, buildings frequently undergo operational and occupancy changes that challenge the mechanical, electrical and control systems, hindering optimal performance. So your **facilities may become increasingly inefficient.**

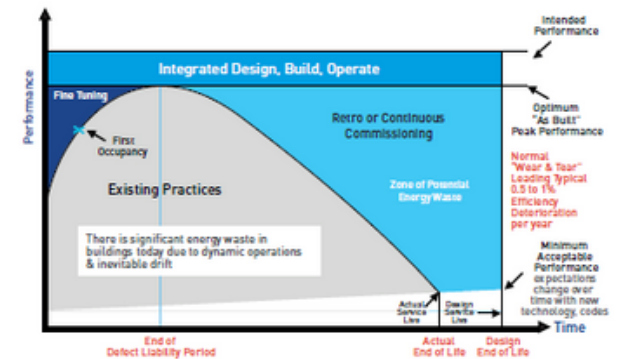


Diagram 1 - Deterioration of chiller plant over time

*Many of these small operations and control improvements cost little to implement, yet some have big effects.



BENEFITS

- Improved system operation: beyond preventive maintenance
- Improved equipment performance
- Increased asset value
- Energy savings
- Improved Occupant Comfort
- Improved indoor environmental quality
- Improved building documentation